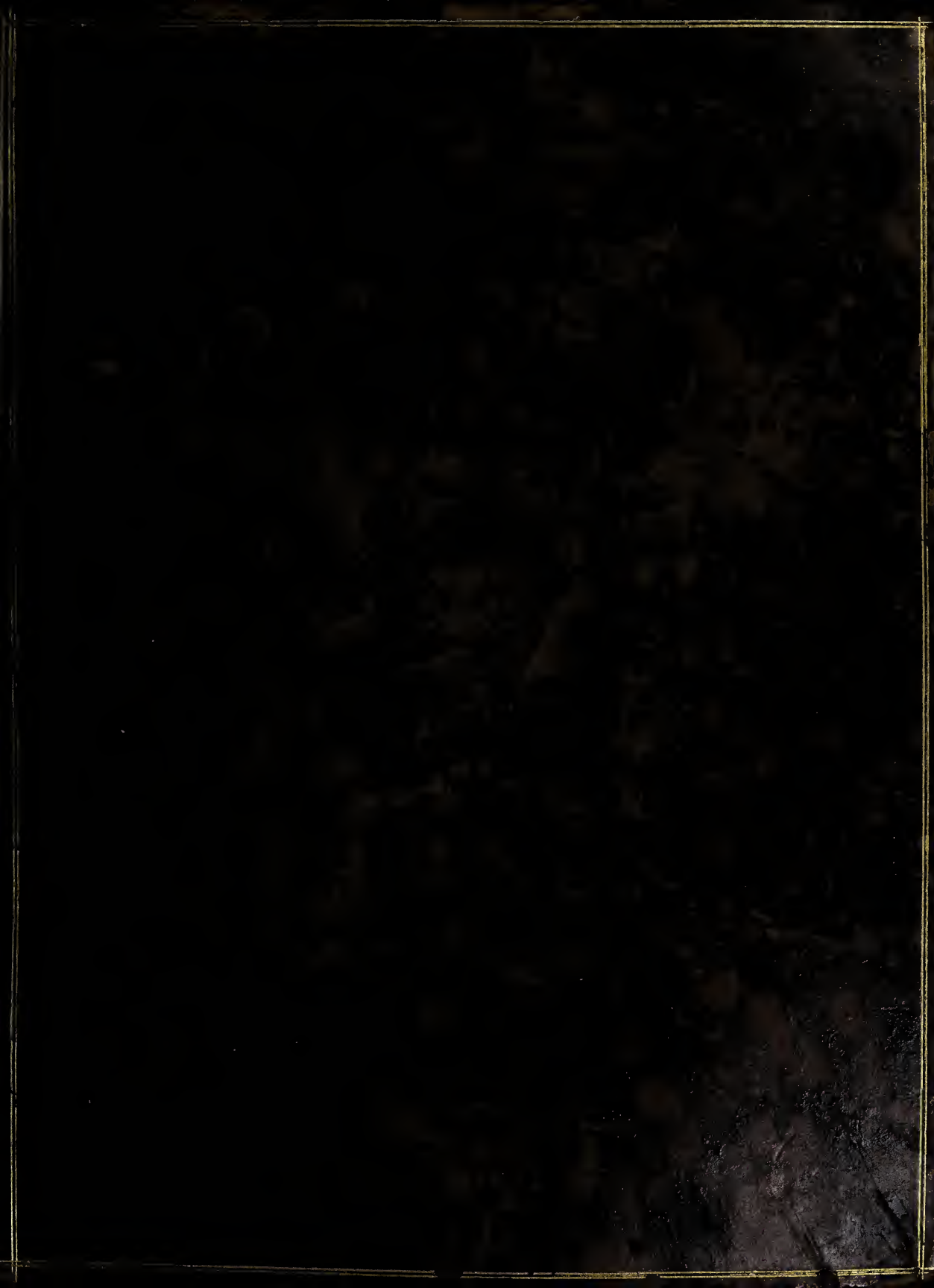
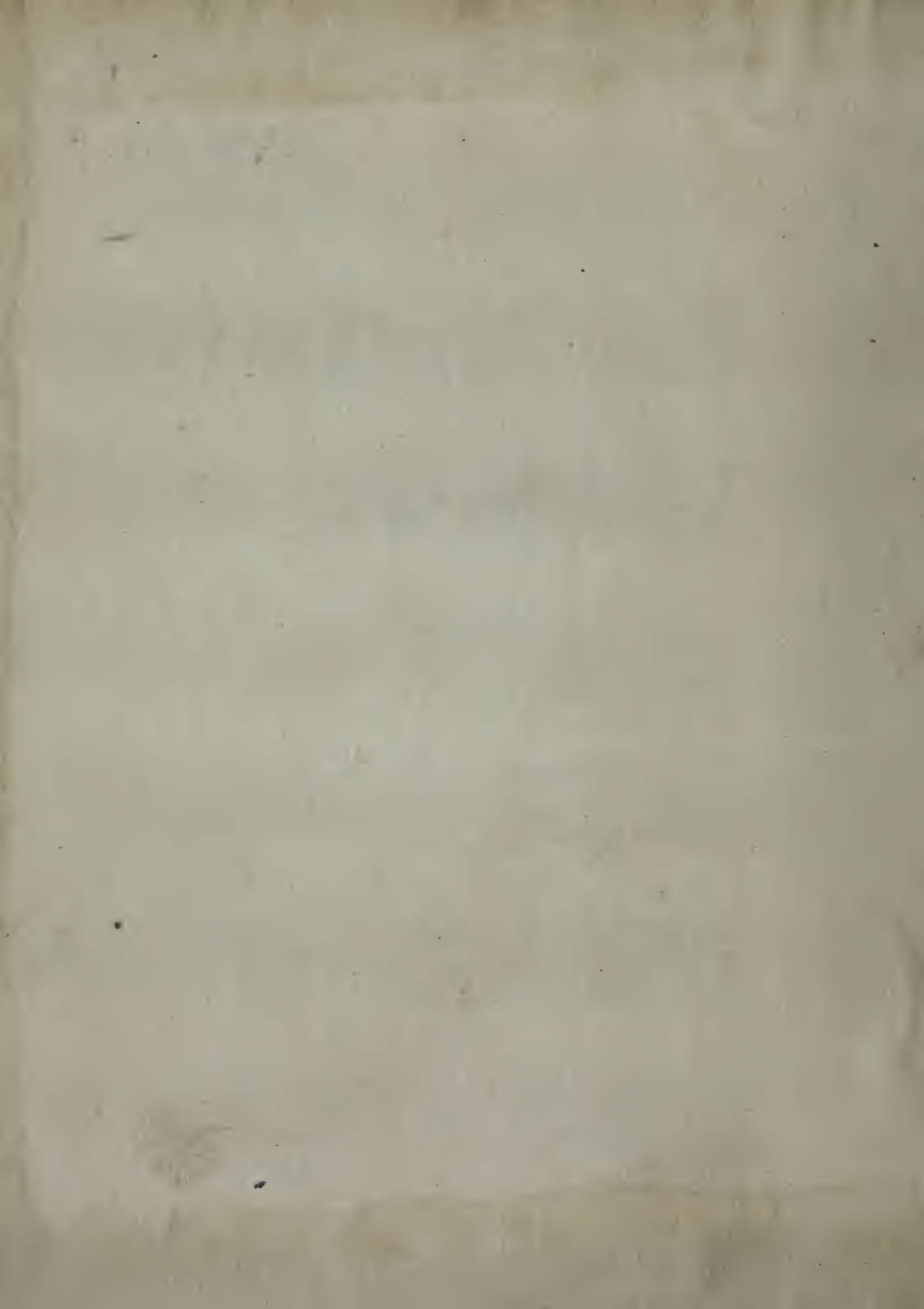




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2 vols



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The Author's PREFACE;

Shewing the Use of his Botanical Institutions.

THOSE who are true Lovers of Botany, by Genius and Inclination led to the useful Knowledge of Plants, may, without the Assistance of any Master, in a very little Time accomplish themselves therein, by fixing in their Memory the different Forms of fourteen Flowers only, which one Hour, or two at most, will suffice to rivet there; for every Flower is either composed of Leaves, or, having none, consists only of some small Threads or Capillaments: The first, by the Botanists, is called, Flos Petalodes; the other, an apetalous or stameneous Flower, which either adheres to the Embryo, or infant Bud of the Plant, or remains separated from it: The petalous or leafy Flower is divided into simple and compound; the Simple consists either of one single Leaf, or of several distinct Leaves: The Species of the Monopetalous or single-leaved Flower, are, the Bell-shaped, the Funnel-shaped, the Wheel-shaped, the Labiate Flower, and the Flos Personatus, so called, because its Leaf imitates the Beaks or gaping Mouths of certain Animals. The Species of the polypetalous Flower, are, the Cross-shaped Flower, the Rosaceous, the Gillyflower-like Flower, the Liliaceous, and Papilionaceous, whose little Petala or Leaves are so disposed, as to represent the Form of a Butterfly. The compound Flower is divided into the Floscular, Semifloscular, and Radiated.

When any Plant therefore offers it self to the inquisitive Botanist, he is first to examine the Flower, if it is leafy or stameneous, simple or composite; let us suppose it, for example, of the Bell-shape: In this case, the first Class of our Institutions, which treats of the monopetalous Bell-shaped Flowers, is to be consulted, and all the different Kinds diligently surveyed, till he meets with a Flower like to that which remains unknown; for if in Form it imitates a Bindweed Flower, there he must fix, and continue his Search till he finds if its Pointal changes into a Fruit like to that of the Bindweed: If it is so, the unknown Plant is to be ranked, beyond all doubt, under the Genus of the Bindweed: Nor is it enough to know the Genus; all the Species there enumerated are to be separately examined, that it may appear whether this particular one be described or not; for if in its whole Form, that is, in Roots, Leaves, Stalks, Flowers, and Fruit, it agrees with that Species which Caspar Bauhin calls the great white Bindweed, it is without Controversy the great white Bindweed of C. B. Hereupon he may, if he pleases, have recourse to the botanical Writers mentioned by C. Bauhin, for more full Information. In enumerating the different Species, I first of all adduce the Appellation given by Casp. Bauhin, then the Name

which John Bauhin has imposed upon the same Species, because of his Descriptions and useful Observations; and lastly, the Title used by Dodoneus, Clusius, Lobel, or any other approved Author who has given an exact Figure of the same Species.

When the Knowledge of Plants is attained by this Method, it is rarely lost, or if it so happens, it is easily, by the same Means, recalled: The studious Botanist, however, is to be advised of this, that besides the generical Characteristick, which for the most part is founded upon the particular Form of the Flower and Fruit, all the other Parts of the Plant are to be accurately examined with a nice and curious Eye, that the Images may remain more deeply traced; for having once discovered the Genus of each Species by the sole Inspection of the Flower, in any Season of the Year the same Species is easily distinguished, it immediately occurring even to those who are but just initiated into this Art, that Leaves of this or the other Form belong only to a Plant that bears a Flower and Fruit of a peculiar determined Structure: So that the generical Marks of Plants depend only upon two or three Parts, whereas the specifick Characters are derived not only from all the individual Parts, but also from their several Qualities, by which it appears that nothing certain can be determined, even of the smallest Herb, but after the most exact Examination of all its Parts in their different Seasons.

Long Experience has ever confirmed this to be the surest and shortest Way to obtain the true Knowledge of Plants, especially of such as annually flower and fructify; for as to tall and lofty Trees, which but rarely bear either Flower or Fruit, their Names ought rather to be learned from Books, or from a Teacher, tho' their Genus's are to be determined by the Form of their Flower or Fruit; for those that are esteemed Species of the Poplar, Ash, or Oak, are only ranked under those Genus's, from the particular Structure of their Flowers and Fruit; and albeit they differed in their Leaves from every other Species, would still appropriate to themselves the same Name, from their Agreement in the generical Characteristick.

I must not omit to inform my Readers, that I not only enumerate the several Species of Plants, but often mention what the Botanists call Varieties; not at all solicitous whether they be really the same Species only varied and somewhat diversified; for as they differ in some sensible Qualities, they ought to be distinguished by peculiar Titles.

The Publisher's PREFACE.

OUR Author having sufficiently accounted for the Usefulness of his Institutions, I shall forbear all further Enlargement. This Study, which before lay, like ancient Chaos, involved in the deepest Darkness and Confusion, appears now, by his ingenious Industry, stripped of all its ugly and forbidding Forms, in beautiful Order and easy Method. The general Approbation which the Work has met with, and the Author's Character, too well known in the learned World to need any additional Lustre from our scanty Panegyrick, abundantly recommend it to the Perusal of the Curious.

Our Translation endeavours to render the Performance more universally useful, by subjoining specifick Descriptions, where any remarkable Difference, not expressed in the Appellations of the Species, seems to demand them, and by adding the medicinal Vertues of the several Plants: The Descriptions are generally borrowed from Ray, whose Accuracy and Diligence have procured him a merited Reputation; and therein we still aim to be concise, clear, and perspicuous. Schroder, Frederic, and Caspar Hoffman, Dale, and Tournefort himself, in other Works published by him, are the Authors we are principally indebted to for the physical Vertues of the Plants: Those that are of chief Use in Medicine, we have given you chymically analyzed by our Author, who was a curious Searcher into Nature, which shews them in their Principles and depending Powers; nor have we omitted any Discoveries of this Nature, made by the useful Labour of the Royal Academy of Sciences at Paris. And tho' we are in great Ignorance as to the Plants of the Ancients, yet where the Descriptions given by Dioscorides, and the ascribed Powers, appear to agree with the Modern, we have all along inserted a faithful Abstract of that laborious Ancient, and given an abridged View of his *Materia Medica*.

Throughout the whole Work, we give an exact Account of the most useful Preparations from the several Plants, and of the famed Compositions into which they enter as chief Ingredients. In short, the Reader shall find the Performance as compleat as possible in this useful Part, neither tediously diffuse, nor too obscurely contracted, no imaginary Qualities nor universal Powers ascribed, but such as they are really possessed of, from long Experience and Observation, and upon the Authority of the best Vouchers.

Several Reasons have determined us to publish it thus Monthly; the Expence of our Undertakers, which otherwise would have amounted to too considerable a Sum; if it does not answer the Expectations, nor hit the Taste of the Curious, it may be the more easily dropped, and with less Loss: Errors may creep in, both in the botanical and physical Parts, and the Generosity of some who wish the Propagation of useful Knowledge, may incline them to communicate some new Observations in both Kinds; in this Manner of publishing, all Mistakes may be with less Trouble rectified, and new Discoveries inserted, which shall be faithfully done, and with Gratitude acknowledged, if transmitted either to the Printer or Publisher.



A short Account of Monsieur Tournefort's Life and Writings.

Joseph Pitton Tournefort, was born at *Aix* in *Provence*, the fifth of *June*, in the Year 1656. his Father was named *Peter Pitton, Seigneur de Tournefort*, and his Mother *Aimare de Fagon*, descended of a noble Family in *Paris*.

When of Years proper to commence his *Latin* Studies, he was sent to the *Jesuits* College at *Aix*, where his Genius soon discovered it self: Plants no sooner offered themselves to his View, than he felt a strong Inclination to Botany, diligently enquired their Names, and carefully observed their Differences, and would often employ the Hours of his Class to herbarize in the Fields, and preferred the Study of Nature to that of the *Roman* Language; nor, when advanced to Philosophy, could he relish that which was then commonly taught; he found nothing but abstracted and indetermined Ideas, which start wide of Things, and afford no solid Entertainment nor real Satisfaction to a Mind closely bent upon the Pursuit of Nature: Chance at last favoured his Inclinations; in his Father's Closet he discovered the Philosophy of *Descartes*, little known at that Time in *Provence*, and soon found it was what he so long searched for, and that it answered his Taste; he could not entertain himself with this Philosopher but at stolen Hours; this inflamed his Mind with stronger Desires, and quickened his Application; and the Father who opposed his Pursuit of so useful a Study, gave him an Opportunity of laying the Foundation of a most excellent Education, without thinking that he in the least contributed thereto: As he designed him for the Church, he fixed him in a Seminary to follow his Theological Studies; but the Bent of Nature baffled the Parent's Views; the Love of Botany so filled his Mind that Divinity lay neglected, and he pursued his favourite Study, either in a curious Garden belonging to an Apothecary at *Aix*, in the adjoining Fields, or upon the Tops of the neighbouring Mountains; and by Address or Presents, gained Access to such Places where he thought there were Plants not to be found elsewhere: If these Means failed, rather than suffer a Disappointment, he resolved to enter by Stealth and Secrecy, which often exposed him to Danger; and he once narrowly escaped the Rage of the Peasants, who mistaking him for a Thief, hotly charged him with Volleys of Stones. Chymistry and Anatomy too had powerful and engaging Charms, and almost equally fired his inquisive Mind: In short, the Study of Nature and Medicine attracted him with such irresistible Force, that Theology was abandoned, and the Church obliged to yield her unjust Acquisition; he had before his Eyes, the Example of a paternal Uncle, a Physician of great Merit and Reputation; this encouraged him in his Choice, and the Death of his Father, which happened in the Year 1677, took off all Restraint, and left him at full Liberty to pursue his favourite Views.

He improved the Opportunity, and in 1678, visited the Mountains of *Dauphine* and *Savoy*, from whence he brought a great Number of curious Plants, which laid the Foundation of his Herbal.

Geometry and History may be learned in the lazy Solitude of the Closet; Astronomy, Chymie, and Anatomy, require but small Action, but Botany is not to be attained in learned Ease and Inactivity; the only Books which can instruct in this Science, lie dispersed over the whole Surface of the Earth: Botanists must traverse the thickest Woods and Forests, climb the highest Mountains, and stand exposed upon the Brink of Pre-

[Take the Remainder of this out of Number IV.]

Precipices; Labour and Danger muſt be reſolved upon and encountered in the Search; whence it is, that ſo few are found to excel in this Science: A ſuperior Degree of Paſſion to what is requiſite to make a learned Man in another Profeſſion, muſt inſpire him who aims at perfection in this, and that Paſſion muſt be attended with full Health and Vigour of Body. Monſieur *Tournesfort* was a Man active and laborious, of a ſtrong and robuſt Conſtitution, and of a moſt cheerful Temper, which ſupported him under all his Toils and Fatigues: In ſhort, Nature had exactly moulded him, both in Body and Mind, for the end ſhe deſigned him.

In the Year 1679, he went from *Aix* to *Montpelier*, where he made great Progreſs, and conſiderably improved himſelf in Anatomy and Phyſick. The Garden of Plants eſta- bliſhed in this City by *Henry* the Fourth, however richly furniſhed, could not ſatisfy his Curioſity; he travelled all the adjoining Parts for ten Leagues round, and diſcovered Plants unknown, even to the Inhabitants; but theſe Courſes were ſtill too much con- fined and bounded: In the Year 1681, in the Month of *April*, he ſet out for *Barcelona*, and ſtaid till Mid-Summer in the Mountains of *Catalonia*, whither he was accompanied by the Phyſicians of the Country, and the young Students, to whom he read Lectures of Botany; one would have almoſt concluded, that herein he imitated the ancient Gym- noſophiſts, who kept their Schools in remote Deſerts, and carried their Diſciples there to inſtruct them.

The high *Pyrenean* Mountains ſtood too near in view not to afford a powerful Tempta- tion; he well knew that in thoſe vaſt Solitudes he muſt lead the Life of the moſt aſtere and rigid Anchoret, and that the miſerable Inhabitants, who were to furniſh him with that poor ſlender Subſiſtence, exceeded not in Number the Robbers whom he had to dread; and it ſo happened that he was often ſtripp'd by the *Spaniſh* Miquelets; but he at laſt found out a Stratagem how to ſave a little Money upon ſuch Occaſions: In Loaves, which he carried about with him, he concealed ſome Reals; tho' they ſearched him narrowly, and were not of a Character to ſlight the ſmalleſt Gain, yet the Bread was ſo coarſe, black, and hard that they left it to him, condemning the mean Purchase: The Strength and Paſſion of his Inclination ſurmounted all Difficulties, and thoſe hideous and almoſt in- acceſſible Rocks ſtood transformed to his View into a moſt magnificent Library, where every Thing courted his Fancy, where his Curioſity rioted and was moſt luxuriouſly feaſted, and where his Hours glided ſmoothly in infinite Pleaſure and Satisfaction; du- ring his ſtay here one unhappy accident beſel him, a wretched Hut, where he lay, fell upon him, he remain'd two Hours buried under the Ruins, and had any longer delay been interpoſed, the World had been robb'd of this excellent Genius.

About the end of the Year 1681, he returned to *Montpelier*, and from thence into his own Country to *Aix*, where he claſſed in his Herbal all the Plants he had collected in *Provence*, *Languedoc*, *Dauphine*, *Catalonia*, and upon the *Alps* and *Pyrenees*: There are but few that can comprehend, how the Pleaſure of viewing theſe Plants entire, well pre- ſerved, and regularly diſpoſed in a beautiful Order, in large Volumes of white Paper, abundantly recompenced all his paſt Toil and Fatigue.

Happy it was for Botany, that Monſieur *Fagon*, then firſt Phyſician to the late Queen of *France*, as he had been always paſſionately addicted thereto, and look'd upon it, not only as a curious Study, but as an eſſential Branch of Phyſick, now declared himſelf its Patron and favoured its Advancement with all the Power which his high Poſt and Merit gave him: The Report of Monſieur *Tournesfort*'s Fame and Character reached him from ſo many Parts, and ſtill ſo-uniformly, that he reſolved to draw him to *Paris*, the general Rendezvous of all the great Genius's diſperſed over the ſeveral Provinces of the Kingdom; for that End he addreſſed himſelf to *Madame de Venelle*, Sub-Governante of the Children of *France*, who was well acquainted with all the Family of Mr. *Tourne- ſort*; at her Inſtances and Perſwaſions he came to *Paris*, and in 1683, was introduced by her to Mr. *Fagon*, who the ſame Year procured for him the Poſt of Profeſſour in Bo- tany

tany at the Royal Garden of Plants founded at *Paris*, by *Lewis* the Thirteenth, for the Instruction of young Students in Physick.

This Business gave no Interruption to his Design of Travelling; he returned into *Spain*, and visited *Portugal*; he acquainted himself with Plants, but for the most Part without the Assistance of any Botanist. In *Andalusia*, which is a Country fruitful in Palm-Trees, he was curious to verify the famous Stories of the Amours of the Male and Female of that Species, but his Search was vain, he could discover nothing certain, and these Amours so ancient and so much celebrated, if real, remain still mysterious: He likewise visited *Holland* and *England*, where he saw several new Plants and many famous Botanists, whose friendship and esteem he easily gained; a sufficient Proof whereof we find in *Herman*, the late famous Professour of Botany at *Leyden*, who, as he was then very far advanced in Years, was instant with him to accept of the Resignation of his Post; he wrote to him with great Earnestness, and the Zeal he was inspired with for the Advancement of the Science he professed, inclined him to a Successor, who was not only a Foreigner, but the Subject of a hostile Nation: He assured Mr. *Tournefort* of a Pension of 4000 Livres from the States-General, and gave him Hopes of an Augmentation, when his Merit should be better known: Tho' the Revenue of his own Post, as Professour of Botany at the Royal Garden, was but small, yet the passionate Love of his native Country, where Arts and Sciences flourished in as great a Degree of Perfection at least as in any other Nation, made him reject such advantageous offers.

His Country was not ungrateful: In the Year 1691, Mr. L'Abbé *Bignon* being constituted President of the Royal Academy of Sciences, the first use he made of his invested Power, was to associate into that learned Body *Tournefort* and *Hombert*, no otherwise known to him than by the Fame and Renown of their Merit; and when upon his Testimony the King had approved of the Choice, he presented them both to the Assembly.

In 1694, the first Work of Mr. *Tournefort*'s appeared in the World, entituled, *Elements de Botanique, &c.* Elements of Botany, printed at the *Louvre*. In 3 Vol. in 8°. His Design was to establish a certain Order among that prodigious Number of Plants confusedly dispersed over the whole Face of the Earth, yea, and concealed within the Bottom of the Deep, to distribute them into Genus's and Species, to facilitate the Knowledge thereof, and prevent the Memory's being clogged and overwhelmed with an almost infinite Number of different Names and Appellations.

This Order so necessary, is not fixed by Nature, she preferred a pompous Confusion to the Convenience of the Naturalists, whose Business it is to discover a regular System: As this is a Work of the Mind, 'tis easy to foresee they will disagree in Sentiment and Opinion, and that some may probably declare against all System and Method: That which Mr. *Tournefort*, after a most learned and ingenious Discussion, found most rational and preferable to all others, was, to regulate the Genus's by the Flowers and the Fruit together, that is to say, that all Plants alike in these two Parts should be reputed of the same Genus, and that the Difference either of the Root, or of the Stalk, or of the Leaves, should afterwards constitute the several Species: He proceeded farther, the Genus's he includes within fixed Classes, regulated only by the Flowers: He was the first who ever hit upon this thought, which is much more useful in Botany than may be perhaps at first imagined; for there are found hitherto only fourteen different Forms of Flowers to be imprinted upon the Memory: When we have then under Consideration a Plant in Flower, whose name we are ignorant of, we see immediately to what Class it belongs; some Days after the Flower the Fruit appears, which determines the Genus, and the Survey of the other Parts fixes the particular Species; insomuch, that in a Moment we find the Name Mr. *Tournefort* gives, with respect to his System, and the Appellations given to it by the most famous Botanists, either according to their own peculiar Systems, or without adhering to any: Thus we may attain a perfect Knowledge of this Plant by having recourse to the Authors who have treated of it, without fear

fear of blending or confounding it with another : It is an infinite Relief to the Memory, to find this tedious confounded Science reduced to this, to retain only 14 different Shapes of Flowers, by help whereof we are distinctly led to 673 Genders, which include 8846 Species of Plants, whether of the Land or the Sea, all that were known unto the Time that this Book was published : What prodigious and unfurmountable Labour would it be to know these 8846 Species, under all the different Names it has pleased Botanists to impose upon them? This shall be more particularly enlarged upon and illustrated, when we give our Author's ingenious Introduction, at the Completion of the first Volume.

This Work was received with general Approbation ; it was attacked in some Points by Mr. Ray, to which Mr. Tournefort answered in 1697, in a *Latin* Dissertation, addressed to Mr. Sherrard, a learned and famous Botanist ; the Dispute was carried on without Heat and Passion, and with a becoming Politeness on both Sides : In a Work posteriour to this dispute, Mr. Tournefort gives a high Character of Mr. Ray, yea and greatly commends his System.

He was received into the Faculty of Paris as Dr. of Physick, and in 1698, published a Book, intituled, *Histoire des Plantes, qui naissent aux environs de Paris, avec leur Usage dans la Medecine*, The History of such Plants as grow in and about Paris, with their Uses in Physick. It is not to be imagined that he who searched for Plants upon the Summits of the Alps and Pyrenees, would neglect to survey those that grow in the Country adjoining to Paris. Botany would be a Science merely curious, had it no relation to Physick ; and it is the Botany of one's own native Country which ought to be chiefly studied ; not that Nature has been so careful as to furnish each Climate with Plants appropriated to the Diseases of the Inhabitants, but that it is more convenient to employ what is near at hand ; and what comes from remote and foreign Parts, is often found possessed of no superiour Virtue. In this History, besides the different Names and Descriptions of the Plants, Mr. Tournefort gives us their chymical Analysis, as performed by the Royal Academy, with their most approved Virtues.

Among the Works of Mr. Tournefort one may reckon a Book, or at least Part of a Book, not published however by himself ; it bears for title, *Schola Botanica, sive Catalogus Plantarum, quas ab aliquot annis in Horto Regio Parisiensi studiofis indigitavit vir Clarissimus Josephus Pitton Tournefort, Doctor Medicus, ut & Pauli Hermannii Paradisi Batavi Prodomus, &c. Amstel. 1699*. This Catalogue was composed and published by Mr. Simon Wharton, an English Gentleman, who had studied Botany for three Years, at the Royal Garden, under Mr. Tournefort's Direction.

As the Elements of Botany had all the Success the Author could desire, in 1700 he gave a *Latin* Translation of them, much enlarged with many useful Additions, for the Benefit of Foreigners, under the title of *Institutiones rei Herbaria*, Institutions of Botany : In three Volumes, in 4^e. 'Tis this Work which we now give to the World in these monthly Volumes.

Botany, however, did not so entirely possess his Inclinations, but that most of the other Curiosities of Nature, such as rare Marcasites, figured Stones, uncommon Petrifications and Crystallizations, Shells of all Sorts shared them in a great Measure ; yet his Love for Stones must be excepted from the Number of his Infidelities to his Favourite ; he look'd upon them as Plants, and to have a Sort of vegetative Life ; yea, he extended this System even to Metals, so far did his prevailing Passion transport him, to transform every Thing into the particular object of its Love : The Arms, Instruments, and Habillements of remote Nations, he collected too with Care, which, tho' they are not Curiosities immediately fashioned by the Hand of Nature, yet afford a philosophical Pleasure to him that knows how to philosophize. All these together furnished him a sumptuous and magnificent Closet for a private Man, esteemed by the curious to amount to the Value of 45 or 50000 Livres : This vast Expence and Profusion would have fixed a Blot upon the Life of a Philosopher, had it had any other Object.

In 1700, he was ordered by the King to travel into *Greece, Asia, and Afric*, not only to discover the Plants of the Ancients, and others, which perhaps escaped their Knowledge; but to make Observations upon all the Parts of Natural History, ancient and modern Geography, and even of the Manners, Religion, and Commerce of the several Nations: He was ordered to write as oft as possible to *Monsr. de Ponchartrain*, and to inform him in detail of all his Discoveries and Adventures: He set out accompanied by *Mr. Gundelsheimer*, a *German*, and *Mr. Aubriet*, an excellent Painter, and travelled to the Frontiers of *Persia*, herborizing and observing: He should have visited *Afric*, but the Plague, which raged in *Egypt*, forced him from *Smyrna* into *France*, whither he returned loaded with the Spoils of the *East*: He brought back with him, besides an infinite Number of curious Observations, 1356 new Species of Plants, of which the greatest Part easily ranked themselves under some of his 673 Genus's; for the rest he was only obliged to create 25 new ones, without any Augmentation of Classes; which demonstrates the Convenience of his System. These Plants compose the Corollary to his Institutions.

Upon his return to *Paris* he resolved to renew his Practice in Physick, which he had sacrificed to his Eastern Voyage, at a Time when it turned to good Account; but Experience teaches us, That in whatever depends upon a certain Taste of the Publick, Interruptions are dangerous; humane Approbation is something forced, is very fickle and changeable, and seeks only to have an end. *Mr. Tournesfort* encountered great Difficulties in refusing his former Practice; he was besides obliged to continue his Exercises at the Royal Garden, and to discharge the Office of Professor in Physick at the Royal College, the Functions of the Academy demanded some Time; in fine, he determined amidst all this hurry of Business to compleat the Relation of his Voyage, which lay in scattered and confused Memoirs, intelligible only to himself: The Toil and Fatigue of the Day should have been succeeded by necessary Repose and Tranquillity; but on the contrary, it obliged him to new Labours during the Night: His strong and vigorous Constitution supported the vast Fatigue for some Time without any sensible Inconvenience, but at length Decay of Health ensued; and while, in this bad Disposition of Body, he unfortunately received a violent Blow upon the Breast, which he certainly judged would put a speedy Period to his Life, he dragged but a languishing Life for some few Months afterwards, and died the 28th of *December*, 1708.

By Testament, he left his Cabinet of Curiosities to the King, for the Use of the Learned; and his Books of Botany to *Mr. L'Abbé Bignon*: The first Volume of the Relation of his Voyage was printed at the *Louvre* before his Death, and the second was afterwards finished from his Manuscript: This Work, which preserves its first Form of Letters addressed to *Mr. Ponchartrain*, contains 200 Plates, curiously engraved, of the Plants of Antiquity, &c. is interspersed with many valuable Observations, and shews a great Knowledge of ancient and modern History, and a vast Erudition. *Histoire de l'Academie*.

The End of Mr. Tournesfort's Life.

ADVERTISEMENT.

TWAS thro' a Mistake of the Printer, that Table XV. was marked above the Genus of the *Althæa*, or *Marsh-mallows*, in N^o III. Page 58. for there is no Figure to represent it, nor should it have any, as he who attentively considers the Text of the Author will easily perceive; so that from this Error the following Tables are falsely numbered: Table XVI. should be XV. and so on; this we hope will satisfy those, who, from this Typographical Error, imagined there was a Table deficient.

Shewing the Use of his Botanical Institutions.

THOSE who are true Lovers of Botany, by Genius and Inclination led to the useful Knowledge of Plants, may, without the Assistance of any Master, in a very little Time accomplish themselves therein, by fixing in their Memory the different Forms of fourteen Flowers only, which one Hour, or two at most, will suffice to rivet there; for every Flower is either composed of Leaves, or, having none, consists only of some small Threads or Capillaments: The first, by the Botanists, is called, Flos Petalodes; the other, an apetalous or stamaneous Flower, which either adheres to the Embryo, or infant bud of the Plant, or remains separated from it: The petalous or leafy Flower is divided into simple and compound; the Simple consists either of one single Leaf, or of several distinct Leaves: The Species of the Monopetalous or single-leaf'd Flower, are, the Bell-shaped, the Funnel-shaped, the Wheel-shaped, the Labiate Flower, and the Flos Personatus, so called, because its Leaf imitates the Beaks or gaping Mouths of certain Animals. The Species of the polypetalous Flower, are, the Cross-shaped Flower, the Rosaceous, the Gillyflower-like Flower, the Liliaceous, and Papilionaceous, whose little Petala or Leaves are so disposed, as to represent the Form of a Butterfly. The compound Flower is divided into the Floscular, Semifloscular, and Radiated.

When any Plant therefore offers it self to the inquisitive Botanist, he is first to examine the Flower, if 'tis leafy or stamaneous, simple or composite; let us suppose it, for example, of the Bell-shape: In this case, the first Class of our Institutions, which treats of the monopetalous bell-shaped Flowers, is to be consulted, and all the different Kinds diligently surveyed, till he meets with a Flower like to that which remains unknown; for if in Form it imitates a Bindweed Flower, there he must fix, and continue his search till he finds if its Pointal changes into a Fruit like to that of the Bindweed: If 'tis so, the unknown Plant is to be ranked, beyond all doubt, under the Genus of the Bindweed: Nor is it enough to know the Genus; all the Species there enumerated are to be separately examined, that it may appear whether this particular one be described or not; for if in its whole Form, that is, in Roots, Leaves, Stalks, Flowers, and Fruit, it agrees with that Species which Caspar Bauhin calls the great white Bindweed, it is without controversy the great white Bindweed of C. B. Hereupon he may, if he pleases, have recourse to the botanical Writers mentioned by C. Bauhin, for more full Information. In enumerating the different Species, I first of all adduce the Appellation given by Casp. Bauhin, then the Name which John Bauhin has imposed upon the same Species, because of his Descriptions and useful Observations; and lastly, the Title used by Dodoneus, Clusius, Lobel, or any other approved Author who has given an exact Figure of the same Species.

When the Knowledge of Plants is attained by this Method, 'tis rarely lost, or if it so happens, it is easily by the same Means recalled: The studious Botanist, however, is to be advised of this, that besides the generical Characteristick, which for the most part is founded upon the particular Form of the Flower and Fruit, all the other Parts of the Plant are to be accurately examin'd with a nice and curious Eye, that the Images may remain more deeply traced; for having once discovered the Genus of each Species by the sole Inspection of the Flower, in any Season of the Year the same Species is easily distinguished, it immediately occurring even to those who are but just initiated into this Art, that Leaves of this or the other Form belong only to a Plant that bears a Flower and Fruit of a peculiar determined Structure: So that the generical Marks of Plants depend only upon two or three Parts, whereas the specific Characters are derived not only from all the individual Parts, but also from their several Qualities, by which it appears that nothing certain can be determined, even of the smallest Herb, but after the most exact Examination of all its Parts in their different Seasons.

Long Experience has ever confirmed this, to me, the surest and shortest Way to obtain the true Knowledge of Plants, especially of such as annually flower and fructify; for as to tall and lofty Trees, which but rarely bear either Flower or Fruit, their Names ought rather to be learn'd from Books, or from a Teacher, tho' their Genus's are to be determined by the Form of their Flower and Fruit; for those that are esteemed Species of the Poplar, Ash, or Oak, are only ranked under

der those Genus's, from the particular Structure of their Flowers and Fruit; and albeit they differ'd in their Leaves from every other Species, would still appropriate to themselves the same Name, from their Agreement in the generical Characteristick.

I must not omit to inform my Readers, that I not only enumerate the several Species of Plants, but often mention what the Botanists call *Varieties*; not at all solicitous whether they be really the same Species only varied and somewhat diversified; for as they differ in some sensible Qualities, they ought to be distinguished by peculiar Titles.

The Publisher's Preface.

OUR Author having sufficiently accounted for the Usefulness of his Institutions, I shall forbear all further Enlargement. This Study, which before lay, like ancient Chaos, involved in the deepest Darkness and Confusion, appears now by his ingenious Industry, stripped of all its Ugly and forbidding Forms, in beautiful Order and easy Method. The general Approbation which the Work has met with, and the Author's Character, too well known in the learned World to need any additional Lustre from our scanty Panegyric, abundantly recommend it to the Perusal of the Curious.

Our Translation endeavours to render the Performance more universally useful, by subjoining specific Descriptions, where any remarkable Difference, not expressed in the Appellation of the Species, seems to demand them, and by adding the medicinal Virtues of the several Plants: The Descriptions are generally borrowed from Ray, whose accuracy and diligence have procured him a merited Reputation; and therein we still aim to be concise, clear, and perspicuous. Schroder, Frederic, and Caspar Hoffman, Dale, and Tournefort himself, in other Works published by him, are the Authors we are principally indebted to for the physical Virtues of the Plants: Those that are of chief Use in Medicine, we have given you chymically analyzed by our Author, who was a curious Searcher into Nature, which shows them in their Principles and depending Powers; nor have we omitted any Discoveries of this Nature, made by the useful Labour of the Royal Academy of Sciences at Paris. And tho' we are in great Ignorance as to the Plants of the Ancients, yet where the Descriptions given by Dioscorides, and the ascribed Powers, appear to agree with the Modern, we have all along inserted a faithful Abstract of that laborious Ancient, and given an abridged View of his *Materia Medica*.

Throughout the whole Work, we give an exact Account of the most useful Preparations from the several Plants, and of the famed Compositions into which they enter as chief Ingredients. In short, the Reader shall find the Performance as compleat as possible in this useful Part, neither tediously diffuse, nor too obscurely contracted, no imaginary Qualities nor universal Powers ascribed, but such as they are really possessed of, from long Experience and Observation, and upon the Authority of the best Vouchers.

Several Reasons have determined us to publish it thus twice a Month; the Expence of our Undertakers, which otherwife would have amounted to too considerable a Sum; if it does not answer the Expectations, nor hit the Taste of the Curious, it may be the more easily drop'd, and with less Loss: Errors may creep in, both in the botanical and physical Parts, and the Generosity of some who wish the Propagation of useful Knowledge, may incline them to communicate some new Observations in both Kinds; in this manner of publishing all Mistakes may be with less Trouble rectified, and new Discoveries inserted, which shall be faithfully done, and with Gratitude acknowledged, if transmitted, either to the Printer or Publisher.

There remains but one Thing more of which we are to inform our Readers, that as our Author's Introduction is large and would have swelled our monthly Volumes to too great a Bulk, we have delayed the Translation thereof, which we shall publish with a compleat Dictionary of the technical Words, when the first Volume is completed.

THE COMPLEAT

HERBAL.

The First CLASS.

Of Herbs and Under-shrubs, with a Flower of one entire Leaf, in the Shape of a Bell.

A Bell-shaped Flower consists but of one single Leaf, in its Form imitating the Shape of a Bell: Of this Flower there are four Species, all which we shall mention under this Class. 1. That which is properly so called, the Figure of its Leaf most nearly imitating the Shape of a Bell. 2. The cy-

lindrical bell-shaped Flower, its Leaf is more contracted, and bears the Resemblance of a narrow oblong Tube. 3. The wide and expanded Bell-flower, which opens and spreads its Leaf in the Form of a Bason. 4. The globous bell-shaped Flower, its Mouth is of a much narrower Circumference than its Belly.

S E C T. I.

Of Herbs, with a Flower of one entire Leaf, in the Shape of a Bell, and a Pointal changing into a Fruit, soft and somewhat large.

T A B L E I.

G E N U S I.

Mandragora, Mandrake,

IS a Plant, with a Flower A B of one entire Leaf, in the Shape of a Bell, and cut into several Segments; the Pointal D shoots from the Flower-Cup C, pierceth the bottom Part of the Flower, and is afterwards converted into a soft Fruit E, for the most part round, enclosing many Seeds F, shaped like a Kidney G.

Its Species are,

Mandrake, bearing a round Fruit, of *Caspar Bauhinus*, *Pin.* 169. This is the Male Mandrake of *John Bauhin*. 3. 617. and the Mandrake of *Dodoneus*, *Pempt.* 457. The Leaves rise immediately from the Root, above a Foot in length, narrow at both ends, but very broad in the Middle, of a dark green Colour, and a most offensive Smell; from among these, directly too from the Root, some short Footstalks shoot, each sustaining a Flower of a white Colour, somewhat inclining to purple, and hairy; when the Flower drops, it is succeeded by a round Fruit about the Bigness of a Medlar, of a greenish Yellow, when fully ripe: *Parkinson* says, it is of a deep Yellow, the Root is sometimes single and undivided, sometimes found branched out into two, three, or more Divisions, long, thick, black without, and of a whitish Colour within.

In hot climates, as in *Italy*, *Spain*, *Candy*,

&c. it grows wild in Woods and shady Places, and near to Rivers; but in the cold and northern Climates it is only to be found in the Gardens of the Curious.

It flowers in *March*, and the Fruit is ripe in *July*.

Mandrake with a Flower of a bluish Purple, of *C. B. Pin.* 169. this is the female Mandrake of *J. B.* 3. 618, *Clus. Hist.* 87.

The Leaves of the female Mandrake are smaller, narrower, of a more blackish Colour, more wrinkled and folded, and of a more stinking Smell than those of the male; the Colour too of the Flowers is different; the Fruit, which is not formed like a Pear, but round, is less, and scented, full of Juice, and of a paler Yellow, the Seeds blacker; *Clusius* says, he has observed it in some Parts of *Spain*, flowering in *February*: This Species is more rare than the male: None of the Mandrakes emit stalks, which may be added to the Characteristicks of this Plant.

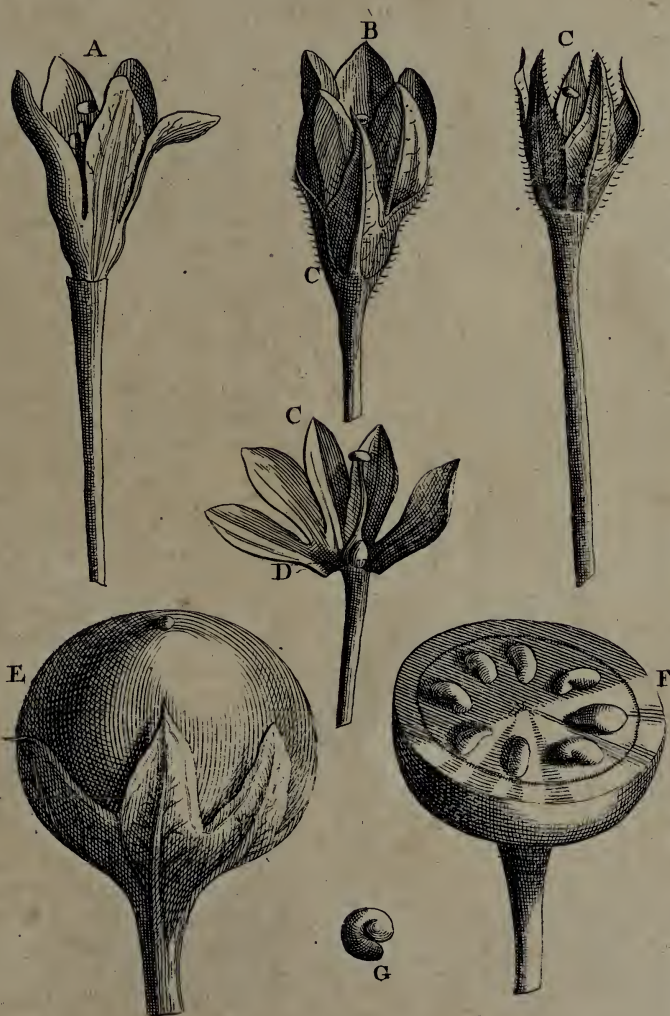
The Species of the Mandrake without Flower and Fruit are distinguished by their Leaves, which are of a dark green Colour, roundish, and of a stinking Smell, and by their Roots, which are long and thick, called by some *Anthropomorpha*, from their imagined Resemblance of a humane Shape.

It bears its Name from the *Greek* word *Mavdes*, which signifies a Stall for Cattle, because its first Observers discovered it growing near to such Places.

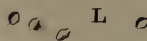
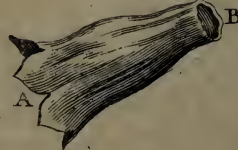
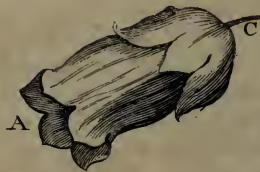
The male Mandrake is most commonly used; and of the whole Plant, only the Leaves, Bark of the Root, and the Fruit.

By a chymical Analysis it is found to abound with Oil, and acid Phlegm, but yields

Mandragora . *Mandrake*.



Beiladona *Deadly Night Shade.*



yields only a small Quantity of urinous Spirit, and volatile concremented Salt.

Tournefort in his *Materia Medica* compares it in Principles and Faculties to the Henbane, and consequently makes its Powers to depend upon Sulphur and Salt-Armoniack; by its Sulphur it softens and mollifies the Fibres, and by its Salt does discuss and dissipate Tumours.

It is soporiferous and narcotic, but as it is apt, if taken to a certain Quantity, to disorder all the rational Faculties, and pervert the whole Frame, it is rarely used internally, but externally, the Bark of the Root especially, in all Inflammations of the Eyes, Erysipelas, hard and scrophulous Tumours, &c. We are informed by *Dioscorides*, that the Juice of this Plant, and a Wine prepared by infusing the Barks of the Root, were usually given before Burning and Amputation, by the Ancients, to stupify all Sense of Pain; that the Juice entered as an Ingredient in ophthalmick and anodyne Remedies, and in emollient Pessaries; that both the Leaves and the Root, applied by way of Cataplasm, give Relief in all articular Pains; he tells us moreover, that the Smell of the Apples procures sleep, and that their Seeds purge the Womb. The Effects and Symptoms of their Poison, which they turn to when taken in too great a Quantity, he describes to be a profound and deep Sleep, nothing distant from a Lethargy, and as if it were a Dissolution of the whole OEconomy: *Matthiolum* adds, an excessive and insupportable Heat overspreads the whole Body, the Face is of a fiery Redness, the Mouth and Tongue dry and parched, and the Person affected perpetually gaping to suck in fresh Air: As a Remedy against their Poison he prescribes vomiting before the Poison has exerted its utmost Force, Rue, Pepper, and Mustard bruised in Vinegar and smelt to Wormwood and Nitre given in Wine, &c.

Matthiolum to these adds *Origanum*, Penny-royal, Castor, Calamint, and the Treacle of *Andromachas*, as highly beneficial;

with Friction, Ligatures, Vesicatories, &c. Those who would have more full Satisfaction may consult the aforesaid Author and his Commentator.

The Leaves of this Plant enter as a chief Ingredient in the Ointment of Poplar; but the Herb-Merchants commonly impose those of the *Hyoscyamus luteus*, or *English* Tabacco, for the true Mandrake-Leaves, which, when wanting, must diminish much from the Virtues of the Composition.

As to the famed Resemblance of a humane Form, which the Roots of this Plant are said to carry, 'tis all Imposture, owing to the cunning of Quacks and Mountebanks, who gull the Populace and the Ignorant with fictitious Images, shap'd from the fresh Roots of other Plants, especially the Briony, instead of those of the Mandrake; and what is reported as to the Manner of rooting up this Plant, by tying a Dog thereto, to prevent the certain Death of the Person who should dare to attempt it, and the Groans which it emits upon the Force offered, &c. 'tis all a fulsome Fable, derived, as *Matthiolum* probably conjectures, from what the Jewish Historian *Josephus* relates of that wonderful Plant which he calls *Baaras*.

TABLE II.

GENUS II.

Belladonna, Deadly Nightshade,

IS a Plant with a Flower of one entire Leaf A, in the Shape of a Bell, and cut into several Divisions: The Pointal D, which is fixed like a Nail in the back Part of the Flower B, rises from the Flower-Cup C, and is afterwards transformed into a roundish, soft or juicy Fruit E, by a transverse Partition F, divided into two Cells, G, H, stored with Seeds L adherent to the * Placenta I K.

Its

* The Placenta is that thin Membrane thro' which Nourishment is conveyed to the Seeds, and to which they are closely joined.

Its Species are,

Belladonna with larger Leaves and Flowers.

This is a Plant of a luxuriant Growth; from its thick spreading Root it sends up Stalks, four, sometimes six, Foot in length; which, swelling in several Parts into round Knots, from thence emit various Branches: The Leaves are large, of a dark green Colour upon the upper Side, but on the under of a lighter Green, upon both somewhat hairy; the Flowers are channelled or striated, of a dull purplish Colour within, and at the Bottom of a changeable Yellow; they are succeeded by Berries, when fully ripe, of a shining Black, and full of a purple Juice.

It grows near to Walls and Hedges, and in ruinous and uncultivated Places; it is found in several Parts of England.

Belladonna with lesser Leaves and Flowers.

Round-leaved, shrubby Spanish *Belladonna*; this is the *solanum Frutex rotundifolium Hispanicum* of Barr. Icon.

Shrubby American *Belladonna*, with a white Flower, and a Tabacco-leaf Plum.

Clusius gives us one Figure of the first Species, which he observed diversified in its Leaves and Flowers; it is called by Caspar Bauhin. *solanum melanocephalus*, by John Bauhin. *solanum manicum multis*, sive *Belladonna*, but how much it differs from the *Solanum*, may be clearly perceived from the Figure.

The Italians named this Plant *Belladonna*, which in their Language signifies a beautiful Woman, because the Ladies use it much in the Composition of their Fucus, or Face-Paint.

The Leaves of this Plant are only used; externally applied they soften and discuss the hard and cancerous Tumours, generated in the Breasts of Women. Ray. It is a soporiferous and poisonous Herb, never to be used inwardly; we have several Instances of the fatal Effects of its Berries, related both by ancient and modern Botanists; who caution against its Use; which the Curious may see more at large in Matthioli's Commentaries upon Dioscorides, Parkinson, Gerard, and others.

S E C T. II.

Of Herbs, with a Flower of one single Leaf, in the Shape of a Bell, and a Pointal changing into a soft and small Fruit.

T A B L E III. Fig. I.

G E N U S I.

Lilium Convallium, Lilly of the Valleys, or May-Lilly,

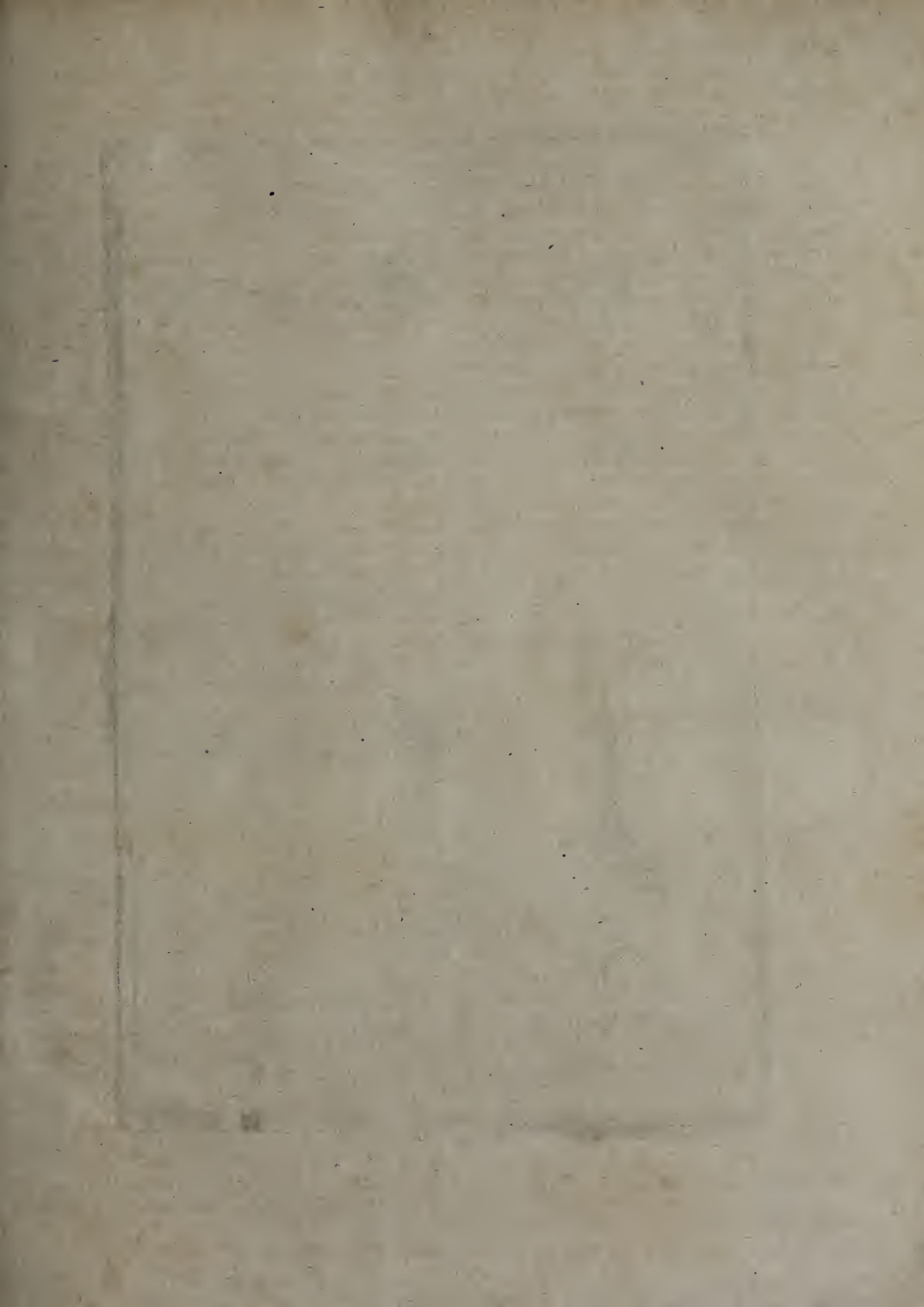
IS a Plant with a short Flower of one entire Leaf A, in the Shape of a Bell, without a Flower-Cup, and divided into several Segments; the Pointal B rises from the Bottom of the Flower, and is afterwards changed into a soft Fruit C, for the most Part of a round Figure, stored with

Seeds E, numerous and closely heaped together D.

Its Species are,

May-Lilly with a white Flower of C. B. Pin. 304. this is the *Lilium convallium vulgè* of J. B. 3. 531. and the May-Lilly of Dodoneus, Pempt. 205.

From a slender, white, and fibrous Root, creeping along the Surface of the Ground, it sends up a naked Stalk, (which may be added to the Characteristicks of this Plant, for all of the Kind bear a naked Stalk) and cornered; which from the Middle



Lilium Convallium. May Lilly.

Fig. 1st.



Polygonatum. Solomon's Seal.

Fig. 2^d.



dle to the Top is adorned with beautiful white Flowers, pendulous, and inclined to one side, supported upon little bending and crooked Footstalks, divided into six Segments, with an equal Number of fine slender Chives, surrounding a triangular Pointal, all of a greenish Yellow, of a pleasant Smell and a bitterish Taste: They are succeeded by a red Fruit or Husk which encloses the Seed; the Leaves come out in Pairs, a Hand's breadth and a half in length, two Inches broad, of a bright shining Green, and full of Nerves. It grows in Plenty upon *Hampsted Heath*, and in several other Parts of *England*.

May-Lilly with Flowers shooting from that Membrane, or Husk which enwraps the Seed, *Floribus è Folliculis prodeuntibus*. *Mapp.* This is the May-Lilly with many Rows of Flowers, *Plurimis florum ordinibus*, of *J. B. 3. 533*.

As the former has but one Row of Flowers, this has upon both Sides.

Lilium Convallium ad radicem monanthemum, *Mentz. Pug.* May-Lilly flowering only at the Root, of *Mentzelius*.

Narrow-leaved May-Lilly, of *Ray. Synop.* 148.

Broad-leaved May-Lilly, of *C. B. Pin.* 304. *Prodrom.* 136. *J. B. 3. 533*.

May-Lilly, with a full and party-coloured Flower, *Flore pleno variegato*. *Didac.*

May-Lilly with a red Flower, *C. B. Pin.* 304. *J. B. 3. 533*. This is the *Lilium Convallium floribus suave-rubentibus* of *Lobelius*, *Icon.* 173.

We must exclude from this Genus the lesser May-Lilly of *C. Bauhin. Pin.* 304. which we reckon a Species of the *Smilax*. Although long use and Custom hath authorized and established the Name of *Lilium Convallium*, yet we are to observe, that the May-Lilly is altogether different from the common Lilly, and that there is not the least Affinity between these two Kinds.

It is the first Species that is of common Use; and of the whole Plant, the Flowers, which chymically analyzed yield much Phlegm and volatile concremented Salt, with a large Quantity of Oil; whence it is highly

probable they are sufficiently impregnated with a Sulphur and Salt-Armoniac, tempered with some Earth: They are cephalic and cordial, of principal use in Apoplexies, Palsies, Epilepsies, Spasms, Swoonings, Palpitation of the Heart and other Distempers of the Brain, especially arising from a cold Cause. There is prepared from them a Conserve and a distilled Water, simple and compound; those who distil them from Wine, macerate the Flowers therein for some Time before distillation, either alone or with the Flowers of Lavender and Rosemary; if it is desired stronger, the Infusion is repeated, and again distilled. This Water, *Matthioli* informs us in his Commentary upon the 120 Chap. of the third Book of *Dioscorides*, is called by the Germans, *Aqua Aurea*, or the golden Water, because of its excellent Virtues in all the above mentioned Distempers; he tells us in the same Place, that a Wine is prepared from these Flowers dried, by mixing them with the Grapes in the Wine-Press, but this is of less Efficacy: The Juice squeezed from the Flowers, after they have been earthed for the Space of a Month in an Ant's Nest, in a Vessel closely shut, is highly extolled by *Caspar Hoffman* and *Schroder*, as of excellent use in all articular Pains; we learn too from *Fred. Hoffman*, that a Spirit is prepared by a Distillation of the fermented Flowers, which he says is endowed with admirable Virtues; the Powder both of the dried Root and Flowers is esteemed a powerful Sternutatory. *Tournefort Histoire des plant. Schrod. C. Hoff. de Medicam. officinal. Fred. Hoffman, Animad. & Comm. in Pharm. Schrod. &c.*

TABLE III. Fig. 2.

GENUS II.

Polygonatum, Salomon's Seal,

IS a Plant with a Flower of one entire Leaf A, of the cylindrical Bell-shape, without a Flower-Cup, and divided into several Segments: The Pointal B shoots up from the bottom of the Flower, and is afterwards

terwards transformed into a soft Fruit C, commonly of a globular Shape, containing Seeds D, for the most Part roundish E.

Its Species are,

Common broad-leaved Salomon's Seal, *C. B. Pin.* 303. This is the *Polygonatum vulgò sigillum Salomonis* of *J. B.* 3. 529. and the *Polygonatum* of *Matth.* 954.

From a Root creeping along the upper Surface of the Ground, full of Joints, thick-set with Fibres, about the Thickness of a Man's Thumb, and of a bright White, of a sweetish Taste, and a nauseous Smell; it sends up round Stalks, half a Yard in Length, bending their Tops almost into an Arch, which, if cut or bruised, emit a most offensive Smell: Upon these the Leaves are alternately disposed, all upon one Side, above of a black shining Green, below of a Green inclining to a Blue, and full of Nerves, resembling those of the May-Lilly; the Flowers rise from the Angles which the Leaves make with the Stalk, upon short Footstalks, divided into others still lesser, so that there are found sometimes one, sometimes two or more Flowers at the Angle from whence they shoot; white and without Smell, all pendulous upon one side of the Stalk; they are succeeded by a Fruit about the Bigness of an Ivy-Berry, found diversified in colour when fully ripe, some Plants bearing it of a purple, some of a red, and others of a black Colour.

It grows in Woods, shady Places and Enclosures: *Gerard* and *Parkinson* mention some Places in *Somersetshire*, *Hampshire* and *Cambridgeshire*, where it grows in Plenty; it springs up in *March*, flowers in *May*, the Fruit is ripe in *September*, and continues on the Stalks till the Frost rots and nips both.

Common broad-leaved Salomon's Seal with red Stalks. *H. L. Bat.*

The greatest broad-leaved Salomon's Seal of *C. B. Pin.* 303. This is the *Polygonatum majus vulgari simile* of *John Bauhin.* 3. 529. and the first broad-leaved Salomon's Seal of *Clusius*, *Hist.* 275.

It differs from the first Species only in this, that it shoots up to a much greater

Height, has thicker Roots and Stalks, broader Leaves, abounds more in Flowers, and bears larger Berries; it grows wild in *Austria* and some other Parts of *Germany*.

Broad-leaved Salomon's Seal, with the white Hellebore-Leaf of *C. B. Pin.* 303. This is the *Polygonatum amplitudinis foliorum Hellebori albi* of *J. B.* 3. 530. And the third Salomon's Seal of *Clusius* with a broader Leaf. *Hist.* 276.

Salomon's Seal with a white Hellebore Leaf, and a Stalk of a purplish Colour. *Ray Synop.* 148.

Broad-leaved Salomon's Seal, with a large scented Flower, *C. B. Pin.* 303. This is the *Polygonatum floribus ex singularibus pediculis* of *J. B.* 3. 529. and the second broad-leaved Salomon's Seal of *Clusius*, *Hist.* 276.

This sort agrees very much with the first, only its Stalks are shorter, not exceeding a Foot in length, strait and not bending; its Leaves are broader and thicker set, being placed at shorter Intervals; from every Angle which they make with the Stalk, rise two or three Flowers, each supported by a proper Footstalk, of a pleasant Smell, not unlike that of the Hawthorn Flowers; the Berries are larger than in the first Sort, at first green, and when fully ripe, black, containing a hard stony Seed; it is found in *England*; *Clusius* found it upon the Mountains of *Leittenberg* above *Manderstorf*, and in several other mountainous Parts beyond the *Danube*.

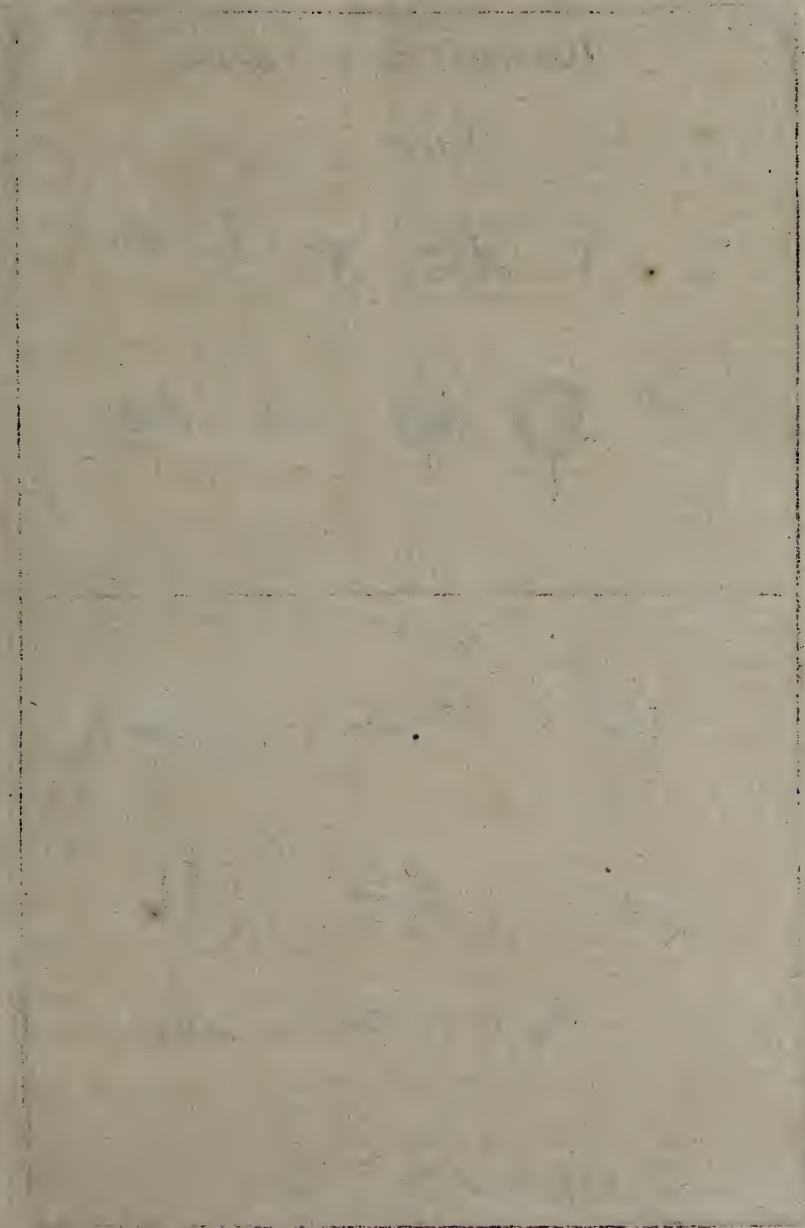
Broad-leaved Salomon's Seal, with a double and sweet-smelling Flower, *H. R. Par.* This is the *Sigillum Salomonis flore pleno* of *A. R. Par.* p. 115.

The lesser broad-leaved Salomon's Seal, with a great Flower, *C. B. Prod.* 136. *Pin.* 303.

Polygonatum humile Anglicum. *Ray Synop.* 148.

Narrow-leaved, unbranched Salomon's Seal, *C. B. Pin.* 303. This is the narrow-leaved Salomon's Seal of *J. B.* 3. 531. And the *Polygonatum alterum* of *Dodoneus*, *Pempt.* 345.

The only remarkable Difference between this and the first and common Sort, lies in the Form of the Leaf, which in this is more narrow and long; and their Disposition, for



Ruscus. Butcher's Broom.

Fig. 1st

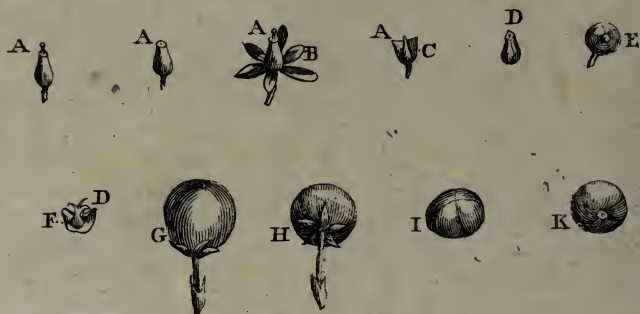


Fig. 2^d



Cerinthe. Honey-wort.

for they are not placed in an alternate order, but shoot out five or six together from every Joint of the Stalk, and encompass it round, showing like a Star or Spur: The Fruit is at first, as *Clusius* observed, of a changing Colour, but when ripe, red and smaller; it grows in plenty in several mountainous and woody Parts of *Germany*, and near to *Geneva*.

Narrow-leaved, branched Salomon's Seal, *C. B. Pin. 304. J. B. 3. 531*. This is the sixth Salomon's Seal of *Clusius*, or his second with a narrow Leaf. *Hist. 277*.

What distinguishes this Species from the last, are the little slender Branches which rise from the Knots of the Stalk, two, three, sometimes more, in Number, in proportion to the Angles or Corners of the Stalk.

Polygonatum Americanum, scandens, alifissum, foliis Tamm. Plum.

Broad-leaved oriental Salomon's Seal, with a small Flower.

We must exclude from this Genus these following Plants; barren Solomon's Seal with spiked Flowers. *Corn. 32*. Berry-bearing Salomon's Seal with spiked Flowers, *Corn. 34*. They are both a Species of the Smilax. Cluster'd Salomon's Seal, *Corn. 39*. The greater cluster'd Salomon's Seal, with a yellow Flower. *Corn. 41*. They are all three polypetalous, that is, their Flowers do not consist of one single entire Leaf, but of many distinct Leaves.

Salomon's Seal is distinguished from the May-Lilly, by the cylindrical Shape of its Flower; it derives its Name from the two Greek Words *πᾶν* and *ῥυν*, because its Roots and Stalks are full of Joints and Knots.

'Tis the Root of the first Species that is most commonly used, the Fruit and Leaves but rarely.

Upon a chymical Analysis it yields only some acid Liquors and Oil, a small Quantity of Earth, and fixed, but no volatile, Salt. *Schroder* affirms, that fourteen or fifteen of its Berries purge by Stool and Vomit, one Drachm of its Root produces the same Effect; some give the Infusion of half an Ounce of the Root in Wine, by way of Diet-drink for several Months to such as have Ruptures; the Patient never vomits,

and finds great Relief; especially if at the same Time the Root bruised be externally applied to the Part by Way of Cataplasim: It is of no less Efficacy in all manner of Contusions; the distilled Water of the whole Plant clears the Face and beautifies the Complexion; a Decoction thereof cures the Itch and such like cutaneous Distempers. *Tourn. Hist. des Plant.* It is vulnerary and astringent, stops all manner of fluxes, knits and consolidates broken Bones; it is used internally as a Remedy for the Whites: *Matthioli* assures, that the Roots candied, if frequently used, are of experienced Efficacy in this Case. *Gerard* and *Parkinson* tell us, that the Country People in *Hampshire*, and in several other Provinces of *England*, in the above mentioned cases, have recourse to it as a divine Remedy; they take internally the Infusion of the Root, and at the same Time make external Application thereof to the Part affected; and that they use it for their Cattle upon the like Occasions: Some Physicians highly recommend the Decoction of the Root in strong Ale, as of excellent use in the Gout. The particular Virtues of this Herb, as a Vulnerary, some think, procured it the Name of Salomon's Seal, and not the Resemblance, which some Parts of its Root bear to the common Shape of a Seal.

TABLE IV. Fig. I.

GENUS III.

Ruscus, Knee-Holly or Butchers Broom,

IS a Plant with a Flower of one entire Leaf A D, of the globous Bell-shape; the Flower-cup B E is cut into several Divisions; the Pointal C F rises from the Bottom of the Flower, and is afterwards changed into a soft Fruit G H, containing one or two hard stony Seeds I K.

Its Species are,

Butchers Broom, with a Myrtle-Leaf, sharp and pointed: This is the *Ruscus* of *J. B. 1. 579*. The *Ruscum* of *Dodonæus*, *Pempt.*

Pempt. 744. The Butchers Broom of the Shops.

This Species from its Roots, which are thick, winding, very much entwined, fibrous, of a white Colour and sweetish Taste, with some bitterness, sends up several Stalks a Yard, sometimes more, in length, pliant, tough, and channelled; which afterwards widely stretch out into Branches thick set with Leaves, of the Shape of the Myrtle-Leaf, rigid, nervous, and armed with a prickly Point; from the middle Nerve of the Leaf the Flowers rise of a violet Colour, they are succeeded by a Fruit, red when ripe; near in bigness to a Cherry, and of a sweetish Taste; it grows in plenty in England, in rough and barren Grounds, as upon *Hampsted-Heath*, and is often found under the Holly-Bush.

It emits its first Shoots in the Spring, which, when tender, are eaten in divers Parts like those of Asparagus; the Fruit is ripe in *August* or *September*.

All the Plants of this Genus, besides the Characteristicks given by our Author in his general Description, have this distinguishing Mark from every other Plant, that they bear their Fruit upon the Leaf, which the *Greeks* expressed in one Word, *ἑσπεριόφυτοι*.

Broad-leaved Butchers Broom, with the Fruit growing upon the Leaf; this is the Laurel of *Alexandria*, *fructu folio insidente* of *C. B. Pin.* 305. The Laurel of *Alexandria* of *J. B.* i. 574. The Laurel of *Alexandria*, and the *Chamadaphne* or dwarf Laurel of *Columna*, *Part.* i. 165.

The Leaves of this Sort are broader than those of the First, the Flowers of a whitish Colour inclining to a Green, the Berries smaller, it grows in several mountainous Parts of *Italy*, and is from thence transported into the Gardens of the Curious. *Parkinson* censures *Columna*, for affirming the Laurel of *Alexandria* and the *Chamadaphne* of *Dioscorides* to be one and the same Plant; and indeed by the Description which he gives, they appear plainly to be two different Species; the Leaves of the *Chamadaphne* are, he says, narrower and longer, and the Fruit grows upon the

under, not the upper, Side of the Leaf, which is sufficient to constitute a distinct Species.

Dioscorides in his fourth Book Chap. 142. gives this Description of the Laurel of *Alexandria*: Its Leaf, says he, is larger, softer, and whiter than that of the *Ruscus*, it bears its Fruit upon the Middle of the Leaf, which is red when ripe, and of the Bigness of Chiches; it spreads Branches a Span, sometimes more, in length; its Roots resemble those of the wild Myrtle, but are larger, softer, and of a pleasant Smell.

Narrow-leaved Butchers Broom, with the Fruit growing upon the Leaf: This is the *Laurus Alexandrina*, *fructu pediculo insidente* of *C. B. Pin.* 304. The *Bonifacia* sive *Bislingua*, Double-Tongue, of *J. B.* i. 575. The Horse-Tongue and *Laurotaxa* of *Columna*, *Part.* i. 165. The *Radix Idæa* and Horse-Tongue of *Col. Phytob.* 64.

This Species grows much like the former, only its Leaves are narrower, longer, and more pointed; what distinguishes it from every other Species, is that little secondary Leaf or Tongue, which, by the surprizing Industry of Nature, shoots from the middle Rib or Nerve of the greater: From the Bosom of these two the Flowers rise, of a pale Green inclining to a Yellow, supported by short Footstalks, upon which, when they drop, the Berries stand, red when ripe, and in bigness near to those of the *Ruscus*: Such is the Inclemency of our Climate, that it never bears Fruit in *England*, yea, and but seldom in *Italy*: In the warmer Climates it flowers in *June*, and the Berries ripen about the End of *September*; it is found in several Places, especially such as are mountainous and shady, both in *Italy* and *Germany*.

From the Description of the Laurel of *Alexandria*, by *Dioscorides*, and that now given of the *Hippoglossum* or Double-Tongue; the Mistake of those Botanists who blended these two Plants of *Dioscorides* into one, is manifest; for he has not only described them separately in two different Chapters, but mentions particularly the secondary diminutive Leaf, as the distinguishing Characteristick of the Horse-Tongue.

Narrow-leaved Butchers Broom, with the Fruit growing upon the Tops of the little Branches. Laurel of *Alexandria*, branchy, and bearing its Berries upon the Extremity of the Stalks. *H. R. Par.* and *H. L. Bat.* In the Appendix whereof a Figure of this Species is exhibited, p. 681. Laurel of *Alexandria*, with the Fruit joined to the Stalk; By long intervening Foot-stalks. *Mor. H. R. Bles.*

Most Botanists have mistaken the Flower-Cup of this Plant for the Flower, which two Parts are to be carefully distinguished by the Rules laid down in the Introduction.

The Root of the first Species, which is the *Ruscus* or common Butchers Broom of the Shops, is one of the five aperitive Roots; and by a chymical Analysis yields a large Quantity of Oil, Earth, and acid Phlegm, with a moderate Quantity of urinous Spirit, and volatile concremented Salt; and as it is wholly stripp'd of that viscous Juice which abounds in the alcalious pungent Salt of Asparagus, it is a more powerful Diuretic than the Root of this last Plant: It is moderately hot and dry, and is of chief Use in removing Obstructions, especially those of the Liver, in a Strangury, and the Suppression of the monthly Evacuations of Women; it is celebrated by *J. Bauhin*, as of great Efficacy in the Dropsy; and indeed *Riverius*, in the third Century of his Observations. *Obs.* 52. Relates the Case of a poor Man, whose Circumstances could not allow the Physician's Fees, wonderfully cured of a confirmed Hydropsy, by a Decoction of the Root of this Plant in Water, used only during the Space of a Month, with some intermediate Purges of the simple Infusion of *Senna*. The same Decoction is of no less use in the Stone and Jaundice: A Scruple of the Powder of the Root, with an equal Quantity of those of Dropwort and Figwort, infused into half a Pint of White Wine, and continued for some Time, is of excellent use in all scrophulous Tumours.

The Conserve of the Berries of this Plant

is of great Efficacy in a Gonorrhoea; which is confirmed by the Experience of *Formius*, as may be seen in the Observations communicated by him to *Riverius*; where he tells us too, that the distilled Water of this Plant has the like Powers; the *Arabians* confounded this Fruit with the Cubebs, by a gross Mistake discovered in the History of Drugs. *P.* 222. *Lib.* 7. The Seeds of the Fruit of this Plant are an Ingredient in the Composition of the *Benedicta laxativa*.

The Virtues ascribed by *Dioscorides* to his *Μυρραντζετα*, or wild Myrtle, being the same with those already enumerated; his *Ruscus*, in all probability, is the same with that now in use. *Diosc. Tournf. Mat. Med. Histoir. des Plant. Schrod. Hoff. Dale.*

The second Species, or the Laurel of *Alexandria*, is commended by *Dioscorides*, as of use in hard and difficult Labours, and in a Retention of Urine. *Matthioli*, in his Commentaries upon this Author, tells us from *Galen*, that it is of a hot Temperature, of a sharp and bitterish Taste, and that it provokes Urine, and the monthly Courses. According to *Dale* it is vulnerary and diuretic.

The third Species, or the double Tongue, is esteemed a vulnerary Plant: All that *Dioscorides* says of it, is, that a Garland of its Leaves cures the Head-ach, and that its Root and Juice were used as Ingredients in emollient Cataplasms; but *Matthioli*, in his Commentary upon this Chapter, observes, That the Moderns have discovered its many concealed Virtues; that it is an excellent Remedy in all diseases of the Womb; that a Spoonful of the Powder, either of the Root or Herb, taken in Wine or Broth, is a certain Specific in the hysterical Passion; that the same Powder taken to the Quantity of half a Drachm, in the Decoction of the greater Comfrey, cures Ruptures in Children; he adds, that at first it occasions great Pains, and that a Truss must be used during the Continuance of this Remedy, and some time after the Cure is performed.

S E C T. III.

Of Herbs with a monopetalous Flower, in the Shape of a Bell, whose Pointal changes into a dry Fruit, or Husk; which in some Kinds encloses only one, but in others, several distinct seminal Cells.

TABLE IV. Fig. 2.

G E N U S I.

Cerithe, Honey-wort,

IS a Plant with a Flower of one entire Leaf, of the cylindrical Bell-shape, cut into various Segments; its Mouth in some Species A is shut, but in others C is open: From the Flower-cup E rises the quadrangular Pointal F, fixed like a Nail in the back Part B D of the Flower, which is afterwards transformed into a Fruit G composed of two roundish Shells or Husks, divided into two Cells H enclosing Seeds, for the most part, of an oblong Shape I.

Its Species are,

The greater Honey-wort, with a party-coloured Flower. *J. B. 3. 602. Clus. Hist. 167.* This is the *Cynoglossum montanum majus*, or the great mountain Honey-wort, of *C. B. Pin. 258.* The great Honey-wort of *Gerard*, and the greater red and yellow Honey-wort of *Park.*

This Species sends up Stalks half a Yard in length, round, hairy, and full of Juice; thick-set with Leaves, of a bluish Green, marked with white Spots; which so embrace and encompass the Stalk where they join it, that it seems to pierce the Leaf: From the Bosom or Angle of the Leaf with the Footstalk, it pushes other little Branches, which wreath and turn themselves like those of the *Tournesol*: The Flowers,

from the extream Circumference to the Middle, are of a yellow Colour, from thence to the Bottom of the Flower-cup, of a purple Red; the Seeds are black, big as those of the bitter Vetch, two together in each Seed-Coffin.

The greater Honey-wort of some Botanists, with a red purplish Flower. *J. B. 3. 603. Clus. Hist. 168.* This is what *C. B. Pin. 258.* calls, *Cerithe flore ex rubro purpureascente.*

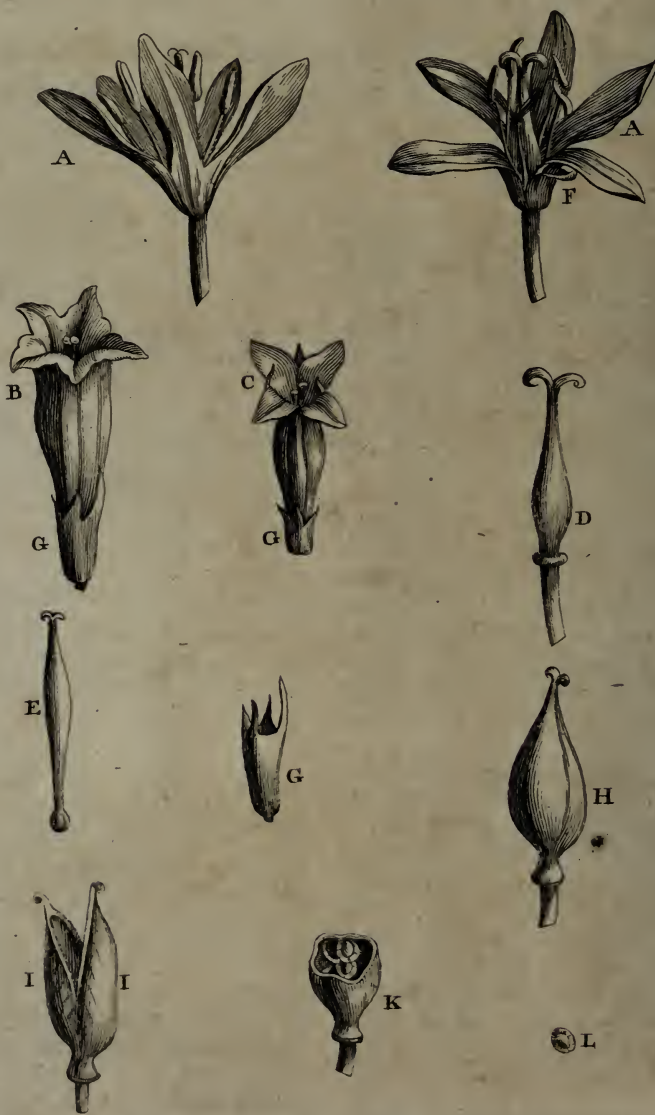
This grows almost in every respect like the preceding, only its Flowers are of a deep purple Red, with some mixture of White, and its Seed larger than in any of the other Species.

The greater Honey-wort of some Authors, with a prickly Leaf and a yellow Flower. *J. B. 3. 602.* This *C. B.* in his *Pin. 258.* calls *Cerithe flavo flore, asperior.* And *Clusius* in his *Hist. 167.* *Cerithe quorundam major, flavo flore.*

The Stalks of this Species are smooth and white, half a Yard, sometimes more, in length, branched out from top to bottom; the Leaves are armed with little sharp Prickles on both Sides, encompass the Stalk with hooked Appendices, are curiously jagged, and cut into fine small hairy Threads round the Edges, spotted like the First, of the same Colour, the Seeds the same, only the Flower all yellow.

The lesser Honey-wort, with a yellow Flower. *J. B. 3. 603. Clus. Hist. 168.* This is the lesser Honey-wort of *C. B. Pin. 258.*

The Stalks of this Sort are slenderer than those of the preceding, the Leaves lesser, the Flowers dented at the Extremities, and smaller. White



White flowered Honey-wort. *Park. Theat.*

521.

The white Spots in the Leaves are not so conspicuous as in the others.

Honey-wort, with a green unspotted Leaf. *C. B. Pin.* 258. This is the fifth Variety of the Honey-wort, according to *Clusius. App. alt. ad Lib.* 5. which he calls *Cerithe, folio non maculato*. This is the lesser yellow and red flowered Honey-wort, of *Park.*

It differs but little from the last, which makes *Ray* suspect them but one Species; its Roots are short, in a manner leaning on the Ground; the Leaves altogether green without any white Spots, nor covered with any hairy Down; from the Angle which the Leaves make with the main Stalks, little weak and slender Branches shoot, thick-set with Leaves, between which rise the Footstalks, of a deep purple Colour, which support Flowers, in their lower and upper part yellow, with an intervening Circle of Purple.

Never-fading Honey-wort of the *Alps*, with a chanelled Flower. Mountain Woad of *Dalechampsius. Lugd.* 1204. This is the *Isatis*, or *Glastrum montanum*, of *Dalechampsius. F. B.* 3. 603.

Those Species of the Honey-wort which bear no Flower, nor Fruit, are for the most part distinguished by their bluish Leaves, frequently chequered with white Spots.

It bears its Name from the *Greek* Word *Κηρός*, signifying Wax, because the Bee booties much upon it, and delights in its Spoils.

The first Species grows in several Parts of *Portugal*, and in *Spain*; the third is very common in *Italy* and *Sicily*; the fourth is found in *Germany*, in some Parts, as in *Austria*, &c. The fifth and sixth grow in diverse Parts of *Spain*, from whence *Parkinson* says he had them, by the careful Diligence of *William Boel*; they all flower in *July* and *August*.

As to the medecinal Vertues of this Plant, there is nothing certainly known: If it has any, they lie hitherto concealed.

TABLE V.

GENUS II.

Gentiana, *Gentian* or *Felwort*,

IS a Plant, with a Flower of one entire Leaf, either of the wide and expanded Bell-shape A, or the narrow and cylindrical, and cut into several Divisions B C: From the Flower-cup F G, the Pointal D E shoots, it pierceth the lowermost Part of the Flower, and is afterwards changed into a membranous Fruit H, of a sharp-pointed oval Figure; Bivalve, or opening length-ways into two Parts I, with one single Cavity, stored with Seeds K, for the most part flat, roundish, and edged with a thin leafy Rim L.

Its Species are,

The great yellow-flowered Gentian of *C. B. Pin.* 187. This is the great common Felwort, with a Leaf like to that of the white Hellebore, of *F. B.* 3. 520. The Gentian of *Dod. Pempt.* 392.

This Species from its Roots, which are about a Foot in length, thick, of a yellowish Colour within, and of a Taste extremely bitter, sends up Stalks, a Yard, sometimes more, in length, and smooth; the Leaves grow upon the Stalks by Pairs, the one opposite to the other, large, with three or five Nerves, like those of Plantane, smooth, shining, and of a pale green Colour, by which Marks they are distinguished and differ from the Leaves of the white Hellebore: From the Angle of the lesser upper Leaves, with the Stalk, the Flowers rise, disposed in Whirls round the Stalk: The Seed is of a reddish Colour, approaching near to that of the Stock-Gilly-flower.

It flowers in *June*, the Seed ripens in *August*, and grows in great Plenty in the Mountains about *Geneva*, and in the mountainous Pastures of the *Alps* and *Pyrenees*.

The larger purple Gentian of *C. B. Pin.* 187. This is the great Gentian, with

a purple Flower, of *J. B.* 3. 521. And the first larger Felwort, with a purple Flower, of *Clus. Hist.* 312.

The Form of this differs nothing from that of the first common Species; its Leaves are large, yet somewhat narrower, and of a deeper Green; they are disposed upon the Stalks after the same Manner, two together in opposition: The Stalks are full of Joints, and the two or three uppermost are deck'd with Flowers, which grow in knots and surround them like a Garland; not yellow, nor expanded into a wide Circumference, as those of the first, but of a purple Colour, larger, and concave, like an oblong Tube, cut into six or more Segments, paler towards the Bottom, where they are marked with several little purple Spots; the Seed is smaller.

It is found in several Parts of *Germany*, and the *Alps*; flowers in *August*, and in *September* the Seed is ripe.

The greater white-flowered Gentian of *C. B. Pin.* 187. This is the great Gentian, with a white Flower, of *J. B.* 3. 521. And the greater Gentian, with a white Flower, of *Clus. Hist.* 312.

This differs nothing from the second, but in the Colour of its Flower.

The greater Gentian, with a spotted Flower. *C. B.* 187. This is what *Clus.* describes, *Hist.* 312. under the Title of the greater Gentian, with a pale Flower, mark'd with Spots.

The Flowers of this Species are of a pale Yellow, and marked on both Sides with several black Spots; in every Thing else it agrees with the two last.

Gentian with a Swallow-wort Leaf. *C. B. Pin.* 187. This is the *Gentiana, folio Asclepiadis vulgò creditæ*, of *J. B.* 3. 523. And the second Gentian of *Clusius*, with a blue Flower. *Hist.* 312.

This Species from the same Root emits several Stalks, strong, firm, and full of Joints; at each Joint the Leaves are placed in the same Disposition as in the others, but of the Bigness, Shape, and Form of the Swallow-wort Leaf, with five Nerves, or Veins running length-ways, sharp and pointed at the Extremity, only they are of a paler Green: The Flowers don't grow in knots, but single, sometimes two one

over against the other, concave and cylindrical, diversified in their Colour, being sometimes found of a Purple and a deep Blue, sometimes of an ash Colour; the Seed is flat, chaffy, and of an ash Colour too, lesser than in the former: The Root is yellow, an Inch in Thickness, branching out into many small oblong Fibres of the same Colour, and sends up new Shoots every Year.

It grows plentifully in the lower *Austria*.

Gentian of the *Alps*, with a great Flower. *J. B.* 3. 523. This is the broad and narrow-leaved Gentianel of the *Alps*, with a great Flower, of *C. B. Pin.* 187. The fifth Gentian, and the greater Spring-Gentianel, of *Clusius. Hist.* 314. The greater large-flowered Gentianel of the Spring, of *Ger.* The greater Spring-Gentianel of *Park.*

This Species, from a slender yellowish Root, sends up Leaves, ranged circularly upon the Ground, but so that there are always two in opposition, equal almost in breadth to those of the broadest Myrtle, thick, and ending like them in a sharp Point; from the Middle of these Leaves there shoots a very small Stalk, set with lesser Leaves, which supports a very large Flower, three Inches long, concave, and of an exquisite Blue, cut into five Segments, with two little Appendices or Ears between each Division; when it drops, it is succeeded by a long conical Fruit, or Husk, which encloses a small Seed, striated or channelled, and of an earthy Colour.

Tho' it grows only naturally upon the Tops of the highest Mountains, where it flowers in *June* and *July*, yet it does not refuse Culture, and is transplanted into our Gardens; highly esteemed and sought after by the curious Florists, for the excellent Beauty and Elegance of its Flowers.

The greater Dwarf-Spring-Gentian of the Mountains: The greater Spring-Gentianel, of the *Alps*. *C. B. Pin.* 188. This is the *Gentianula sive Hippion*, of *J. B.* 3. 527. The sixth Gentian, the lesser Spring-Gentianel of *Clus. Hist.* 315.

In the way of growing this differs very little from the former; the Leaves are much

much smaller, with three Nerves running along; their order upon the Stalk, which is single, small and slender, of a purplish, or green Colour, much the same: At the Top stands the Flower-cup, which supports a long hollow Flower, much less than the preceding, of so charming a Blue, that it seems to vye with the Heavens, whose colour it imitates; it is divided into five Parts, has the like little Appendices or Ears, at the bottom of each Segment; but is distinguished by a white Line upon the Side of each fold, or little seeming Leaf.

Ray says, he hath found it in plenty upon the Mountains near to Geneva; and Clusius, upon several high Mountains in Austria and Hungary: Parkinson is of Opinion, that Gerard was mistaken in saying, he observed it in Salisbury plain, in Sussex, and near St. Albans, and that it was another Variety; it flowers in May or June, and the Seed is ripe in July. Clusius affirms, that it refuses Culture.

The lesser Dwarf-Spring-Gentian of the Mountains: The lesser Spring-Gentianel of the Alps. C. B. Pin. 188.

Dwarf-Gentian of the Mountains, with the Leaf of the lesser Centaury. Summer-Gentianel of the Alps, with the lesser Centaury-Leaves. C. B. Pin. 188. This is the *Gentianella quinta fugax Clusii, flore caruleo, colore elegantissimo*, of J. B. 3. 527.

This has a very small Stalk, scarce three Inches in length, full of Joints; at each whereof are yet little narrow Leaves, resembling those of the lesser Centaury: The Flowers are of a beautiful and exquisite Blue; and are succeeded by little horned Seed-Pods, stored with a small black Seed; its Root is small and fibrous, and intolerably bitter.

It flowers in the Beginning of August, upon the Mountains of Eischer.

Dwarf-Gentian of the Mountains, with a short Leaf: Gentianel with a short Leaf. C. B. Pin. 188. This, according to J. B. 3. 527. is the fourth Gentianel of Clusius, with a perishing Root, and a Flower of an exquisite Blue, and paler purple Colour: And according to Ray Hist. Plant. Gerard's *Gentianella fugax minor*; and Par-

kinson's autumnal Gentian, with Leaves like those of the lesser Centaury.

The different Colour of the Flowers, which are either of a pale Purple, or an exquisite Blue, and the Seed, which is yellowish, constitute the Variety between this and the former.

Blue-flowered Gentian, with hairy Edges. Blue Gentianel, fringed with Hair. C. B. Pin. 188. This is the Dwarf Gentian of J. B. 3. 525. with a Flower cut into four Divisions, and each edged with a fine Down. The autumnal Dwarf-Gentian of Columna. Part. 1. 222. Narrow-leaved, with a blue fringed Flower, and according to Ray's Hist. Plant. the autumnal Dwarf-Gentian of Parkinson, with a fringed Flower.

The Root of this Species is long, slender, creeping, full of knots, perennial, and of a yellow Colour; the bottom Leaves are narrow, smooth, and like to those of the Flax, but shorter, with only one Vein running length-ways; those above the Bottom to the Middle grow larger, from whence to the Top they decrease in bigness: The Stalks are quadrangular, and channelled, branching out sometimes from every Joint: At the Top stands the Flower of a deep Blue, enclosed in its Cup, of a Green inclining to a Purple; the Flower is long and hollow, deeply cut into four Partitions, bearded, as the Title hints, with a fine bluish Hair or Down; in the middle are four Knobs, of a yellowish Red, supported upon so many white Stamina or Threads; these are succeeded by a Husk, long, quadrangular, and forked at the Top, which encloses a very small black Seed.

It grows in several Parts of Germany, where it flowers in the Month of September; and in Italy near to Naples.

Crois-wort Gentian. C. B. Pin. 188. This is the *Gentiana minor, seu vulgi cruciata*, of J. B. 3. 522. And the *Gentiana tertia cruciata*. Clus. Hist. 313.

The Branches of this Species creep along the Ground with the Root, four Inches, sometimes more, sometimes less, in length, round, and of a reddish Colour; the Leaves resemble those of the Soap-wort, the

the Flowers stand thick upon the Extremity of the Branches, of a blue Colour, cut into five Partitions, almost wholly inclosed within their Cups; the Seed is small, of an oblong Shape, yellow and inspid; and the Seed-Vessels are wrapped up in a membranous Husk or Coat.

Clusus observed two Varieties of this Sort, one with creeping, the other with erect, Branches, and greater; the Flowers of the one of a deeper Blue, and one of them its Roots not perforated.

It grows in plenty in several Parts of *Germany*, both in mountainous Pastures, and in uncultivated Grounds, and by the Roads.

Branchy, autumnal Gentian. *C. B. Pin.* 188. This is the first annual Gentian of *Clusus*, with a small Flower from a blue inclining to a purple Colour, according to *J. B.* 3. 526.

The Stalks of this are half a Yard in length, full of Joints; the Leaves set by couples at each knot, with three Nerves running along length-ways, are broad at the Bottom, but end in a long sharp Point, joined to the Stalk without an intervening Footstalk; from the Bottom almost of its Stalk, it shoots out little Branches from the Angles of the Leaves, which support five, seven, or more Flowers, but small in proportion to the Bigness of the Plant.

Meadow-Gentian, with a downy Flower. *C. B. Pin.* 188. *Gentianella Species quibusdam, an Cordo Pneumonanthe, aut Gentiana fugax altera Clusii. J. B.* 3. 526. The eighth Gentian, or the second annual Gentian, of *Clus. Hist.* 315. According to *Ray*, this is the autumnal Dwarf-Gentian of *Parkinson*, with the Leaves of the lesser Centaury, and the lesser annual or perishing Gentian of *Gerard*.

The Root is woody, of a yellowish Colour, not very fibrous; the Stalk half a Foot in height, square, full of Branches, and from a Green turning sometimes to a deep Red, sometimes to a Purple; the Leaves have no Footstalks, about the length of a Finger, broad at the Bottom, but drawing to a sharp Point at the Extremity, with three Nerves, of a dark green Colour, set two and two together, opposite, as is usual in all the Gen-

tians; the Flowers shoot out from the Angles of the Leaves near the Top of the Stalk, of a purplish Colour, long and concave, cut into five sharp-pointed Segments, at the base of the Segments are circularly disposed several little Strait Leaves, divided into fine slender Filaments or Threads which *John Banhin* calls the purple Beard or Down.

The Leaves and Stalks taste hot and bitter, but the Root is inspid.

It is this Species which is so frequently found throughout *England*, especially in chalky Grounds, of which, says *Ray*, our Botanists constitute two varieties; its Characteristick is, that the lowermost internal Part of each Segment, is covered with a fine purple Down; it flowers with us about the End of *August*.

Meadow-Gentian, with a greater and shorter Flower. *C. B. Pin.* 188. This is the third annual Gentian of *Clusus*, with a greater and shorter greenish and bluish Flower, according to *J. B.* 3. 526. The ninth Gentian, or the third perishing Gentian, of *Clus.* 315.

The Title gives all the Difference between this and the last, the Leaves only are much broader; the Flowers are succeeded by long horned Seed-Pods.

Gentian, with little bellying husky Bags, *Utriculis ventricosus. C. B. Pin.* 188. This is the second Blue, heart-like, (*cordata*) Gentian, of *Columna. Part.* 1. 221. And according to *Ray Hist. Plant.* the small Heart-like Summer-Gentian of *Parkinson*.

The Characteristick of this Species is fixed by the swelling husky Bags that grow upon the small Branches, composed of five hard or cartilaginous Ribs, which constitute so many Angles, and end in the like Number of sharp Points, of a pale green Colour; and by the Flowers which first appear from the Top of that siliquous Cavity, very little disclosed, wreathed like the Flowers of the small Bindweeds, of a whitish Blue before it is open, afterwards of so charming and exquisite a Blue, that it seems to exceed the Ultramarine; it is cut into five Segments, expanded and spread like a Star, which are the only Parts exposed, the long hollow Tube lying hid within

within the Cup, which is singular to this Species; between each of the greater Segments appears a lesser seeming Leaf, shaped like a Heart, whence it had the Name of *Cordata*; those who want this Appendice, have a white Line like a Nerve or Vein running along, whence the Centre of the Flower appears of a bright White; the Seed-Vessel bears a round large Head upon a long Neck, enclosing an oblong black Seed, and when the Seed is ripe, opens in two from the Head downwards.

It was observed by *Columna*, upon the Mountains near to *Naples*, where it flowered in *June*: But in *Germany* it flowers later, about the end of *August*.

Broad-leaved, Marsh-Gentian, with a spotted Flower. *C. B. Pin.* 188. Dr. *Penny's* Gentian, with a bluish spotted Flower. *J. B.* 3. 528. The twelfth Gentian of *Clusius*, with a spotted Flower. *Hist.* 316.

The Stalk of this Species is about half a Yard in length, the Leaves like those of the great Gentian, but smaller, the lowermost stand upon red Footstalks, but the upper have none, and in a manner encompass the Stalk: The Flowers are chanelled, of a bluish Colour, curiously marked with black Spots; at the middle of the Stalk they stand three together, but at the Top, five.

It grows in plenty upon *Bokemut*, a Mountain in *Switzerland*; and flowers in *August*.

The greater narrow-leaved autumnal Gentian of *C. B. Pin.* 188. This is the narrow-leaved Marsh-Gentian of the same Author. *Gentiana Species, Calathiana quibusdam, radice perpetua sive palustris.* *J. B.* 3. 524. The *Pneumonanthe* of *Tabern. Icon.* 787. The Marsh-Gentian or Calathian-Violet.

This Species is found in plenty in several Parts of *England*, in *Lincolnshire*, and *Yorkshire*, in moist, heathy Grounds.

The least of all the Gentians: The least of all the small Gentians. *C. B. Prod.* 97. *Pin.* 188. *J. B.* 3. 528.

Oriental Gentian, with the largest and most sharp-pointed Swallow-wort Leaf.

Oriental Gentian, with nervous Leaves, and a great Flower, of a bright White.

Oriental Gentian, with Leaves full of Veins, and a large Flower, of a greenish White; 'tis a Variety of the former.

The lesser autumnal Gentian of the East, with a Myrtle Leaf, and a large blue Flower.

The first discovery of this Plant, according to *Dioscorides*, is ascribed to *Gentius* King of *Illyria*, whose name it bears.

The Ancients make mention but of one Species of the Gentian, which appears to be the great common Gentian; the following Vertues are ascribed to it by *Dioscorides*, Book 3. Chap. 3. The Root, says he, is hot and astringent; two Drachms of it infused into Wine, with Pepper and Rue, is of use against the Stings of Serpents; a Drachm of the extracted Juice is administer'd with Success, in all lateral Pains, to such as are bruised by falls, ruptured, and convulsed: The Root taken in Water, is greatly subservient in Obstructions of the Liver, and diseases of the Stomach; used as a Pessary it expels the Birth: Externally applied, like the *Lycium*, or Box-Thorn, it is vulnerary, and cures all fistulous Ulcers; the Juice especially is endowed with these Powers; instead of the *Meconium*, it is used as an Ingredient in sharp Collyriums, and is of great Efficacy in all inflammatory Distempers of the Eyes. The way to extract the Juice is this, the Root, bruised, is macerated in Water during the Space of five Days, then it is boiled in the same Water, till the Roots are almost entirely consumed; afterwards, when cold, the Water is strained, then boiled again, till it obtains the Consistence of Honey. Thus far *Dioscorides*.

It is the first Species that is most commonly used, and of the whole Plant, the Roots only: Chymically analyzed, they almost entirely dissolve into Oil, yield notwithstanding no inconsiderable Quantity of Earth, and acid Phlegm, with some urinous Spirit, whence their active Powers seem to depend upon a Salt, nearly allied to that of Coral, and impregnated with a copious Sulphur.

They open, and attenuate, or thin viscidous and gross Humours; are esteemed an excellent Alexipharmic, and of chief Use

in all pestilential Distempers, and in removing Obstructions of the Lungs, Spleen and Liver; they perform their Operation by Sweat and Urine, and are given with Success in Fevers, especially intermittent, in which they are extolled by many, as a Specific no less sovereign than the celebrated *Quinquina*: *Schröder* particularly recommends the inspissated Juice of the Roots, given from ʒβ to a ʒl or ʒIV, before the Paroxysm, as of experienced Efficacy.

• They provoke the Courses, are Antiscorbutic, beneficial in all hypocondriacal and hysteric Cates, powerful against Worms, and cure the biting of a mad Dog, and of other venomous Creatures, taken internally; external application being at the same Time made of the powdered Root with Treacle to the Wound; they are besides externally used to cleanse Wounds and Ulcers.

They may be given either in Powder, Tincture, Infusion, or Decoction; the Dose of the Powder, a Drachm; an extract too is prepared from them; Dose from twelve Grains to a Scruple. *Matthiols* makes mention of their distilled Water, which he highly recommends as of great use in intermitting Fevers, against Worms, and to clear the Skin from all Spots, Morpew, or other such like Deformities.

Gentian is the Basis of the Treacle, called Diateseron, and enters as a chief Ingredient in most Treacles, as the Reformed and *Venice-Treacles*, &c. *Diaescordium*, in the Powder against Worms. *Schröder*. *Hoffman de Medicam. Offic. Comment. in Pharmac. Schröder*. *Tournf. Mat. Med. &c.*

The sixth Species, which is the Spring-Gentianel of the Shops, as it is of a strong bitter Taste, both in its Stalks and Leaves, is esteemed useful in all Distempers of the Liver, as the Jaundice, and other Obstructions.

The fourteenth, which is the *Fugax altera Clusii*, and differs not from the tenth in *Mr. Ray's* Opinion, or the *Fugax quarta Clusii*, &c. is the autumnal Gentianel of the Shops, and what our Botanists call autumnal Gentian, with the Leaves of the lesser Centaury: This Plant is a most excellent Stomachic, a pleasant Bitter, and

much superior to the lesser Centaury, instead whereof it is now frequently used with us. *Dale*.

TABLE VI. Fig. 1.

GENUS III.

Hydrophyllon,

IS a Plant with a Flower A, of one entire Leaf, in the shape of a Bell, and cut into several Segments: The pointal D, fixed like a Nail in the bottom part B of the Flower, shoots from the Flower-Cup C, and is afterwards changed into a Fruit almost round E, bivalve FG, enclosing Seeds H, near of the same Shape.

I know but one Species of this Plant.

The *Hydrophyllon* of *Morinus*. *Hort. Joncq.* 43. This is what *Dodart* in his Memoirs, p. 77. calls *Hydrophyllon*, with Leaves like those of the Tooth-wort, a Flower like that of Vipers Bugloss, and a Seed Coffin like that of the *Anagallis*. And the *Hydrophyllon* with Tooth-wort Leaves, and Vipers-Bugloss Flower; in the Catalogue of Plants of the Royal Garden at Paris.

It bears this Name from the two Greek words ὕδωρ, Water, and φύλλον, a Leaf, the Composition importing an aquatic Leaf; but why *Morinus* gave it this appellation, I cannot conceive; seeing it delights in Soils that are fat indeed, but not very watery.

TABLE VI. Fig. 2.

GENUS IV.

Soldanella, Soldanel,

IS a Plant with a Flower A, of one entire Leaf, in the Shape of a Bell, and for the most part fringed; the Pestle D, which is fixed like a Nail in the bottom Part B of the Flower, rises from the Flower-Cup C; and is afterwards changed into a Fruit of a cylindrical Figure E, opening at the Top F, and stored with Seeds H, adherent to the Placenta G.

Its

Hydrophyllum.

Fig. 1.



Soldanella.

Fig. 2.







Convolvulus. Bindweeds.



Its Species are,

Round-leaved Mountain *Soldanella* of *C. B. Pin.* 295. This is the *Soldanella montana quibusdam* of *J. B.* 2. 817. And the lesser Mountain *Soldanella* of *Clus. Hist.* 309.

Round-leaved, Mountain *Soldanella*, with a snowy Flower, of *C. B. Pin.* 296.

Mountain *Soldanella*, with a Leaf less round. *C. B. Pin.* 296. This is the greater Mountain *Soldanella* of *Clusius. Hist.* 308.

T A B L E VII.

G E N U S V.

Convolvulus, Bindweed,

IS a Plant with a Flower of one entire Leaf A, undivided, in the Shape of a Bell, whose Mouth or Brim, for the most Part, is widely spread and expanded; the pointal D rises from the Flower-Cup C, is fixed like a Nail in the bottom Part of the Flower B, and is afterwards changed into a round membranous or husky Fruit EFG, wrapped up, for the most part, within the Flower Cup, found sometimes but with one Seed-Coffin I, sometimes with three distinct seminal Cells H. enclosing little angular, or cornered Seeds K L.

Its Species are,

The great white *Bindweed* of *C. B. Pin.* 294. This is what *J. B.* calls *Convolvulus major.* 2. 154. And the *Smilax lavis major* of *Dodon. Pempt.* 392.

The Roots are white and small, emit various Fibres, and widely spread and diffuse themselves under Ground, of a Taste somewhat sharp and pungent; from thence it sends up very long, slender, and channelled Vine-stalks, which wreathing and winding round every approached Prop, mount it high; upon these, at great intervals, the Leaves are disposed, pointed at the Extremity, and where they join the

Footstalk, divided, and as it were stretched into two Wings, which gives a triangular Form to the whole Leaf, smooth, of a pale shining Green, and much larger than those of the Ivy; from the Bosom of the Leaves there shoots a long Footstalk, which supports a large Flower of a snowy White, with the sustaining Flower-Cup, composed of five little oblong Leaves; and besides these, two little oblong, triangular and hollowed Leaves, bordered with a purplish Colour, enclose the Flower before it is blown, and when it drops, the Flower-Cup, the Pointal, Threads, and Chives, are all white; the Seeds contained within a little round Husk about the bigness of a small Cherry, are black.

It grows in plenty in *England* in moist places, near to Hedges, flowers in Summer, the Stalks and Leaves perish yearly, but the Root is perennial; the whole Plant, as most of this kind, abounds with a milky Juice.

The great purple *Bindweed.* *Cat. Plant. Bat.*

The great *Bindweed*, with a Purple party-coloured Flower. *Hort. Amstel.* 12°. 97.

Great white *Bindweed*, growing upon the Sea-Coasts, with a thick Leaf, having Ear-like appendices. *Bot. Monspel.* This is the *Helxine Cissampelos* of *Pena* and *Lobel* in their *Adv.* 274.

Wheeler's *Bindweed*, with a purple Flower, and Arrow-root Leaves. *Pluknet. Phytolog. Tab.* 85. *Fig.* 3.

Purple *Bindweed*, with a roundish Leaf. *C. B. Pin.* 295. This is the *Campanula Indica*, or *Indian Bell-flower*, of *J. B.* 2. 165. and the *Convolvulus Indicus*, flore violaceo, *Indian Bindweed*, with a Flower of a violet Colour. *Eyster.*

It rises with many red, rough, wreathing and winding Stalks, which catch at every prop; the Leaves are of a roundish Shape, upon both sides somewhat hairy; their Footstalks above an Inch in length, rough, and of a red Colour; the Flowers are of a beautiful Purple, standing, for the most part, three together, each upon a proper Footstalk, shooting from the Top of one single common Footstalk, much longer than those which support the Flowers; the

Flower-Cup is divided into five sharp-pointed Leaves, hairy, and of a blackish Colour.

It is brought in Seed from Syria and the Eastern Parts; flowers in Summer, and perfects its Seed in Autumn, when it totally periseth: It is called by some the Flower of the Night, because its Flowers only open during the Night, and contract, wither, and die with the Sun's approaching Heat.

Indian Bindweed, with a white Flower. *H. R. Par.*

Indian Bindweed, with a white-purple Flower, and white Seeds. *H. R. Monspel.*

Purple Bindweed of *Maderaspatan*, with Leaves like those of the March-violet, and flowers standing in knots. *Pluk. Phytolog. Tab. 166. Fig. 5.*

Father *Plumier's* many-flowered yellow Bindweed. *Descrip. des Plant. Ameriq. 102.* This is the *Convolvulus Polyanthos, folio subrotundo, flore luteo*, the yellow flowered Bindweed, bearing several Flowers standing together in knots, with a roundish Leaf, of *Dr. Sloane. Cat. Plant. Jamaic. 55.*

The Stalks of this Species are very slender; at each Joint there shoots a Leaf shaped like a Heart, and pointed, four or five Inches long; and three or four broad, joined to a long, smooth, slender Footstalk, of a dark green Colour, and undulated; from the same Joints rises another very long Footstalk, thicker, especially towards the Top, than those of the Leaves, which sustains a knot of Flowers, all of a bright Yellow: From the bottom of the Flowers rise five small Filaments or Threads, with long white Chives, surrounding a Pointal somewhat longer, with a green Head, split and divided; the Fruit or Husk which encloses the Seed, is round, of a brownish Red; the Seeds are covered with a shining red, silky Down.

American Bindweed, deck'd with many Flowers, standing in knots, of a snowy White, and a larger roundish Leaf. *Plumier.*

Hairy American Bindweed, bearing yellow Flowers, with a purple Umbo or Centre. *H. Amstel. 15.*

American Bindweed, growing upon the Sea-Coasts, with a very large Leaf, shaped

like a Heart, and a great Flower of a purplish Colour. *Plum.*

American Bindweed, with a large Leaf shaped like a Heart, and a great white Flower. *Plum.*

Purging Sea-Bindweed, with Sorrel-Leaves, and a Flower of a snowy White. *Plum. 105.*

Purging Sea-Bindweed, with a round Leaf, and a purple Flower. *Plum. 104.* This is the Sea-Bindweed of *Piso. 258. Edit. 1658.* and the Sea-Bindweed, or *Soldanella*, of *Marcgrave. 51. Edit. 1648.*

Sea-Bindweed of *Zeylan*, with a thick Leaf, in the Form of a Heart. *H. L. Bat.*

The greater Italian Sea-Bindweed, with a hollowed Leaf. *Morison Hist. Oxon. Part. 2. 11.* This is the *Soldanella*, or the greater Sea-Colewort, of *C. B. Pin. 295.* The *Convolvulus marinus, Soldanella affinis*, of *J. B. 2. 168.* The *Convolvulus marino* of *Ferrante Imper. 671.*

North-Britain round-leaved Sea-Bindweed. *Morison. Hist. Oxon. Part. 2. 11.* This is the lesser Sea *Soldanella* of *C. B. Pin. 295.* The Sea-Colewort or *Soldanella* of *J. B. 2. 166.* and the *Soldanella* of *Dodon. Pempt. 395.*

From white, fibrous, and spreading Roots, it sends up slender Stalks or Tendrils, which creep and stretch along the Surface; the Leaves rise upon long Footstalks, roundish, with blunted Lobes, somewhat thick, nearly resembling those of the Celandine, and full of a milky Juice; the Flowers are large, undivided, of a purple Colour, not unlike those of the smooth Smilax: The Seed contained within the round Husk or Fruit, is cornered, found in some Plants of a black, in others of a white Colour; the whole is of a salt and bitterish Taste.

It is found in plenty upon the sandy Banks near to the Sea-Coast, both in Scotland and England; and flowers in Summer.

The lesser Field-Bindweed, with a purple Flower, streaked with red, of *C. B. Pin. 295.*

The lesser Field-Bindweed, with a white Flower, of *C. B. 294.*

The lesser Field-Bindweed, with a white Flower, and its concave Centre of a purple Colour, of *C. B. Pin. 295.*

The

The lesser Field-Bindweed, with a white Flower, streaked with purple Lines, of C. B. Pin. 295.

Convolvulus angustissimo folio nostras cum auriculis. Pluk. Phyt. Tab. 24. Fig. 3.

The lesser branching Bindweed of Morisf. Hist. Oxon. Part. 2. 37.

Portugal Bindweed, with a blue Flower, of La Brosse. This is the *Convolvulus peregrinus*, foreign Bindweed, with a blue Flower, and an oblong Leaf, of C. B. Pin. 295. J. B. 2. 166. and the *Campanula exotica*, exotic Bell-flower, of Aldinus.

Small African Bindweed. Park. Theat. 171. The Leaves of this Species are not divided where they join the Footstalk, but entire, and the Flowers of a purple Colour.

The least African Bindweed. Parkin. Theat. 171.

This sort does not climb, but its slender Stalks are either spread upon the Ground, or stand upright; the Leaves are very small, and full of Nerves, which run from the middle Rib to the Circumference; almost round, and disposed in an alternate Order; the Fruit which succeeds the Flower is of a roundish Shape, and divided by a thin Membrane into three distinct Seed-Vessels, containing each two small Seeds, partly cornered, and partly round.

The lesser Field-Bindweed, with a Flower of a Rose-colour. C. B. Pin. 294. This is the *Helxine Cissampelos multis*, five *Convolvulus minor*, of J. B. 2. 157. and the small smooth Smilax of Dodon. Pempt. 393.

The Roots are white, tough, slender, emitting but few Fibres, shooting deep into, and widely spreading under the Ground; they send up many weak and slender Stalks, which climb by winding themselves round the neighbouring Plants, but when they find no prop to catch at, they lie spread and creeping along the Ground; the Leaves rise single upon long Footstalks, in some measure triangular, and divided at the base into two Parts, resembling Ears, they are smooth, and the lower, which are the greater, are an Inch broad, and half an Inch long; the Flowers shoot from the Angles of the Leaves with the Stalk, supported by long Footstalks, two for the most Part together, white, or purplish,

and sometimes party-coloured; the Pointal is white and forked, the Chives purple; the Flower-Cup short and undivided; the Flower is succeeded by a small round Fruit, enclosing four Seeds, somewhat large and corner'd; the whole Plant swells with a milky Juice.

It is found commonly in England, in the Fields, near to the Highways and Hedges, and in Gardens.

Small Sicilian Bindweed, with a little Flower, having two Leaves annexed to its Flower-Cup, resembling Ears, *flore parvo auriculato. Bocconi. Rar. Plant. 89.*

The Leaves are in form near to those of the Violet, only lesser and more pointed, upon the upper Side covered with a fine and almost imperceptible Down, and greyish underneath: The Flowers are of a pale Blue, the least and smallest of all the Bindweeds; at the base of the Flower-Cup two narrow oblong little Leaves are annexed, like Ears; the Seed-Vessels are divided into four separate Cells, containing each four Seeds, pretty large, angular, and of a blackish Colour.

This Plant is annual, and flowers during the whole Summer, till Autumn.

Syrian Bindweed, and Syrian Scammony. Morison's Hist. Oxon. Part. 2. 12. This is the *Scammonia Syriaca* of C. B. Pin. 294. The Syrian Scammony, with a great Bindweed Flower, of J. B. 2. 163. and the *Scammonium Syriacum*, *Antiochenum* of Lobel. Icon. 620. Scammony.

From a Root, long, and thick as a Man's Arm, blackish without, within white and fibrous, and full of a milky Juice, it sends up stalks three Yards in length, which wreath and wind themselves round the adjacent Shrubs; the Leaves are in a manner triangular, in shape approaching to the bearded Point of a Spear, smooth, thin, and of a pleasant Green; their Footstalks are short; from the Angles of the Leaves, with the Stalk, the Flowers rise, near the Tops of the Stalks, of a beautiful purplish Colour; they are succeeded by a round membranous Fruit or Husk, which encloses black angular Seeds.

Bindweed with Leaves like those of Scammony. Morisf. Hist. Oxon. Part. 2. 17.

The Leaves are triangular, like those of the Scammony, but much broader at the Base, and the Angles more obtuse; the Flowers are of a pale green Colour; the Seed-Vessels are divided into three distinct Cells, separated by so many thin Membranes, each containing two black or brownish angular Seeds; compared with the Scammony, it is found to differ from it in the Structure of the Leaf, and in its Root, which shoots deep into the Earth, and spreads widely, whereas the Scammony has a long thick Root, like that of the great Radish; it abounds with Milk, as most of this Genus.

Long-rooted Bindweed, called Scammony of *Pluk. Phyt. Tab. 85. Fig. 4.*

In all Things it agrees with the true Scammony, except in the Root, which is long, and not above an Inch thick.

The small Syrian Bindweed. *H. L. Bat. App. 660.*

Convolvulus Linariae folio assurgens, Bindweed with a Toad-flax Leaf: This is the *Volulus terrestris* of *Dalechamp. Lugd. 1425. J. B. 2. 160.*

Convolvulus Linariae folio, humilior. Low Bindweed, with a Toad-flax Leaf. This is the *Cantabrica quorundam* of *Clusius. Hist. 49.*

The small creeping Bindweed, with Leaves of a silver Colour, and almost without Stalks. *H. R. Par.* This is the small silver creeping Bindweed of *Rochel*, with a red Flower, of *Morif. Hist. Oxon. Part. 2. 17.* *Lobel* gives us a Figure of this Species in his Tables, *p. 622.* near to that of the *Convolvulus spicatosus*, or the *stachas Citrina* or *Linaria*.

This sort grows very low, leaning upon the Ground, with long narrow Leaves, of a bright silver-grey Colour; the Flowers are red, by which marks it is easily distinguished from every other Species of the smaller Bindweeds.

Silver-leaved Bindweed, with upright Stalks, set at the Top with Flowers in a Tuft, or round, like a Lady's Umbrella: This is the *Cneoron album, folio olea argenteae, molli*, white *Cneoron*, with a soft silver-coloured Olive-leaf, of *C. B. Pin. 463.* The *Cneoron album* of *Dalechamp*, the *Dorycnium* of others. *J. B. 1. 597.* and the *Dorycnium* of *Plateau*, according to *Clusius. App. 254.*

It is a shrubby Plant, and rises with many erected Stalks shooting from the same Root, a Yard and more in length, white and hoary, set with numerous Leaves, resembling those of the Olive, narrow, and covered with a soft silver-coloured Down; the Extremities of the Stalks are deck'd with white Flowers, with some Leaves intermixed, disposed in a Round or Tuft, and spreading like an Umbrella; the Fruit is like that of the lesser Bindweed, and is divided into three seminal Cells, two Seeds in each; it yields either none, or but a small Quantity, of milky Juice.

It grows, according to *Alpinus*, in the maritime Parts of the Island *Candy*, never divested of its Leaves, but ever green.

Silver-leaved Bindweed, flat and creeping upon the Ground, with Tufts of Flowers, disposed in a Round. *Lychnidis silvestris species Myconi*, a Species of the Wild Campions, according to *Myc. Lugd. 817.* The Wild Campions, with a Flower like that of the *Campanula*, according to *C. B. Pin. 206.* The *Campanula Lychnidea* of *J. B. 2. 803.*

Hoary, branched Bindweed, with the common Mouse-ear Leaf. *C. B. Pin. 294.* This is the *Cislampelo ramoso di Candia* of *Pona*, in his Description of the Plants of *Montebaldo. Ital. 16.* Branchy Bindweed of *Candy*.

The Stalks of this Species are very much branched, and the Branches still subdivided into smaller, with two Leaves at each Joint, hoary, and covered with a hairy Down, like those of the Mouse-ear, the upper being the smallest: The Flowers are large, of an incarnate Colour; the Seed is black, and but one in each Seed-Coffin; the Root is full of Fibres, but periseth every Year.

The least American Bindweed, rough and hairy, with a Leaf like that of the Dwarf-Sun-Flower. *Plumier.*

Dr. Sloan's small creeping Bindweed, with a Money-wort Leaf, and a blue Flower. *Cat. Plant. Jamaic. 58.*

From a slender Root, with many annexed Fibres and Filaments, it sends up long creeping Stalks, striking other Roots into the Ground as they creep along, in various places; at short unequal intervals the

the Leaves are set in an alternate Order, almost round, like the Leaves of the lesser Money-wort, with a purplish Flower, near an Inch in length, and half an Inch broad; their Extremities are infected, and they stand upon short Footstalks, about a quarter of an Inch in length; the Flowers are of a pale Blue, and are succeeded by a brownish Fruit, enclosing two or three Seeds of the same Colour.

It grows in plenty in the Meadows round the Town of *St. Jago de la Vega*, after the Rains, and in *Barbadoes*.

Blue-flowered Bindweed, with an angular Ivy-Leaf. *C. B. Pin.* 295. This is what some call the *Nil Arabum*, or the blue Bindweed, according to *J. B.* 2. 164. The azure or blue, Ivy-like Bindweed, or exotic Smilax, of *Lobel. Icon.* 623. Blue-flowered Bindweed, with a broader Ivy-Leaf, angular or corner'd. *H. L. Bat.*

Hairy Indian Bindweed, with an Ivy-Leaf divided into three Parts, and a blue Flower. *H. L. Bat.*

The greatest Indian Bindweed, winged or branched, with corner'd Leaves, somewhat resembling those of the Marsh-mallow, the Turbith of the Shops. *H. L. Bat.* This is the creeping Indian Turbith, with Marsh-mallow Leaves, of *C. B. Pin.* 149. *Turbith.*

The Root is woody, above an Inch thick, and somewhat branched, penetrating deep into the Earth; it is covered with a thick and brownish Bark, which being broken, distils a glutinous milky Juice, instantly thickening into a pale yellow Rosin, at first of a sweetish Taste, but afterwards sharp and pungent, inclining to vomit; it sends up several slender Stalks, which shoot out into four Wings or Branches, (*quatuor alis donata*) woody near the Root, thick as ones Finger, and of a reddish Brown, but in their Progress greenish; stretching out sometimes six or seven Yards in length, wreathing and winding into various Circles, some of them creep along the Ground, while others mount and climb upon the adjoining Trees and Shrubs, closely clasping and entwining their sustaining Props; upon little winged or branched, and carinated, (*i. e.* crooked and hollowed like the Keel of a Ship,) Footstalks, the Leaves

stand, in Form like those of the Marsh-mallow, soft, covered with a fine hoary Down, cornered, their Edges infected, and somewhat pointed; from their Angles with the Stalk, towards the Extremities of the Branches, other Footstalks shoot, longer and more firm than the former, but neither winged nor carinated, which sustain three or four little oblong pointed Heads, composed of five small Leaves of a reddish Green, each whereof discloses a Flower, in form and bigness like that of the common Bindweed, of a white Colour, containing within, five pale-coloured Stamina or Threads, with their Chives, surrounding a sixth, which is fixed in the subjected Seed-Vessel; when the Flower drops, the little Heads open and expand, and discover four blackish, cornered Seeds, about the bigness of a Pepper-Corn, in their Centre, enclosed within a thin membranous and roundish Vessel, which is divided into four Parts.

It grows in abundance in *Zeylan* and *Malabar*, in shady and moist places, upon the Brinks of Ditches, behind Hedges and Garden-Enclosures, and in other Parts far removed from the Sea.

The American Bindweed, called *Mechoacan*, of *Ray. Hist.* 723. This is the *Jecicucu*, or the Root *Mechoacan*, of *Marcgrave.* 41. *Edit.* 1648. The *Mechoacan*, or white Briony, of *C. B. Pin.* 297. The *Mechoacan* of *J. B.* 2. 149.

The Stalks are full of little slender Twigs, which creep and climb, and stretch out to a great Length, with many Angles and Corners, tough, of a brown and green Colour; the Leaves are placed single, in an alternate order, shaped like a Heart, with two Lobes or Ears, of a deep Green, and three or four Inches long; having at their Base a large Nerve, with many Veins running transversly; the Flowers are like those of the common Bindweed in form and bigness, white, with an intermixed Carnation-colour, but upon the inside Purple; the Seed is about the bigness of common Pease, almost triangular, of a dark brownish Colour: The Root, which is for the most part divided into two Parts, is very thick, half a Foot, or a Foot, in length, upon the Outside of a dark ashy Colour, but

but white within, and when fresh, full of a resinous Juice; the Stalk, if cut, yields a milky Liqueur.

It was first found in *Mechoatan*, an Island of *New Spain*, and from thence took its Name; but afterwards, in several other Parts of *South-America*, as *Nicaragua*, *Quito*, *Brasil*.

Convolvulus Americanus, coccineus, heptaphyllus, radice crassissima. American Bindweed, with a Flower of a shining Purple, a Leaf divided into seven Parts, and a very large thick Root. *Plumier*.

Sea, *American Bindweed*, with a white Flower, and a jagged Leaf. *Plum.*

American Bindweed, with the Flower and Fruit of a purple Colour, and the largest Size, and a Leaf cut into many Divisions. *Plum.*

Cinquefoil American Bindweed, with a smooth dented Leaf, and rough hairy Stalks. *Plum.*

Convolvulus Americanus, villosus, pentaphyllus, & heptaphyllus major. *H. L. Bat.*

Convolvulus Zeylanicus, villosus, pentaphyllus & heptaphyllus minor. *H. L. Bat.*

Convolvulus multifidus, glaber; smooth Bindweed, with a Leaf cut into several Parts: This is the *Convolvulus quinquesfolius*, or the Cinquefoil Bindweed of *C. B. Prodr.* 134. and his *Convolvulus foliis laciniatis, vel quinquesfoliis*, with jagged or cinquefoil Leaves. *ibid.* and in his *Pin.* 295.

Bindweed, with an oblong purple Flower, and a Leaf cut into three Jags, and covered with a fine woolly Down, of *Dr. Sloane. Cat. Plant. Jamaica.* 55. This is the *Convolvulus Jamaicensis, trilobatus, foliis tomentosa lanugine, densiore & levissima, ac veluti adinstar urimque obductis, flore permixto purpureo.* *Jamaica Bindweed*, with a Flower of a beautiful Purple, and a Leaf divided into three Parts, and covered upon both Sides with a fine velvet Down. *Pluk. Tab.* 167. *Fig.* 4.

Beautiful foreign Bindweed, with a Betony-Leaf. *J. B.* 2. 259. This is the silver Bindweed, with a Marsh-mallow Leaf of *C. B. Pin.* 295. and the Bindweed with Marsh-mallow Leaves of *Clusius. Hist.* 49.

The Stalks are slender and hairy, climbing upon every adjoining Prop, a Foot or two in length; the Leaves are of a silver

Colour, napped with a bright shining Down, and supported by long Footstalks; the lowermost and nearest to the Root resemble those of the purple Betony, but are smaller, with curled and infected Edges, the others too are jagged and deeply cut, gummous, and of a sharp and bitterish Taste; the Flowers are purple, smaller than those of the smooth Smilax, and are supported by a Husk composed of many little Leaves; the Root is small and slender, creeping near to the Surface, and shooting up in divers places.

What is most remarkable in this Species, is, That it contains no milky Juice, like the other Bindweeds.

Silver Bindweed, of a most elegant Form, with Leaves finely cut. Silver Bindweed, with Marsh-mallow Leaves, more deeply cut and hoary. *H. L. Bat.* This is the smaller Bindweed, with Leaves divided into five Parts, of *Muntingius.* 503.

We must exclude from this Genus the lesser Bindweed, with a triangular Seed, of *Caspar Bauhin. Pin.* 295. it is a Species of the *Fagopyrum* or Buck-wheat.

Silver Bindweed, narrow-leaved, with Flowers disposed in a circular Form, like an Umbrella, and with Stalks, some upright and erected, others lying flat and spread upon the Ground; the *Dorycnium* of *Prosper Alpinus. Exot.* 73.

Grecian Bindweed, with Arrow-wort Leaves, and a white Flower: This is the least Bindweed, with a narrow Leaf, divided into two Lobes or Ears, of *Boccone. Mus. Tab.* 53. Transplanted into Gardens, it changes its Form and Appearance, and approaches near to the small Field-Bindweed of *Caspar Bauhin. Pin.*

Low oriental Bindweed, with broad Leaves of a silver Colour, upright, and covered with a downy Nap.

Silver oriental Bindweed, with Marsh-mallow Leaves, angular or cornered.

Oriental Bindweed, with Mouse-ear Leaves, spread and stretched upon the Ground.

Oriental Bindweed, with an oblong Leaf, and a red Flower.

It bears the Name of *Convolvulus*, because most of its Species have wreathing and winding Stalks, which twine and turn

turn round every adjoining Tree or Shrub.

The Root of the first Species, or great white Bindweed, is purgative, and cleanses the Body of sharp bilious and serous Humours. *Dale*.

The next Species, which is of any use in Medicine, is the *Convolvulus Maritimus nostras rotundifolius*, of *Morison*, or North-Britain Scurvy-grass, called also *Soldanella* sive *Brassica Marina*, &c. Sea Bindweed; chymically analyzed it yields a large Quantity of essential Salt and Oil. All that *Dioscorides* says of this Plant is, that it contains a small Quantity of milky Juice, is of a sharp, saltish, and bitterish Taste, and highly prejudicial to the Stomach, *κακοστυμαχον*; that the Decoction thereof with flesh Broth purges violently, and that to abate its great Acrimony, it is usually boiled with fat Flesh; and we know from *Pliny*, that the Ancients not only thus blunted its Force, but by adding Astringents at the same Time, such as Spikenard, Rhubarb, &c.

The Authority of *Dioscorides*, as we find from *Hoffman de Medicam. officin.* has divided Authors in their Sentiments as to the use of this Plant, some extolling it as a divine Remedy, while others condemn it as altogether noxious; yet upon a fair Collection, we find, that the generality of the Moderns, and the most celebrated Names agree, That when corrected with proper Stomachicks, such as Ginger, Mace, Cinnamon, Anise, Citron-Seeds, &c. it is of admirable Use, especially in hydropic Distempers, for that it powerfully evacuates serous and watry humours; as also in Palsies, and in scorbutic and rheumatic Dispositions.

The Leaves are only used, and that variously; some eat them by way of Sallad, to the Quantity of two Handfuls, with Water-Cresses, &c. others boil them in the Juice of Fleth, as is already hinted, and others use the Powder of the dried Leaves in Pullet-Broth, or some other convenient Vehicle: The Dose of the Powder is from ʒβ to ʒI or ʒII. *Fallopins* recommends the tender Sprouts prepared after the same Manner we commonly do those of Asparagus, as of singular Efficacy in a Dropsy,

and affirms that he never met with a more excellent Remedy.

The Preparations from this Plant are, the inspissated Juice, and a Conserve, which ought to be corrected with a little Cinnamon.

Convolvulus minor Arvensis, flore rosco, &c. small Field-Bindweed, with a Rose-coloured Flower: *Tournefort* says of this Plant, that he can't determine whether it be purgative, or not, as a great many affirm, but that he certainly knows from the Experience of the Peasants of *Provence*, that externally applied it is an excellent vulnerary.

The 31 Species; which is the *Convolvulus Syriacus*, or *Scammonia Syriaca*, *Morison's* Syrian Bindweed, called by others the Syrian Herb: Scammony, as you may see in the Collection of the synonymous Titles, is of noble use in Physick; as its Roots afford us that admirable Juice, which, when thickened and dried, is known by the Name of Scammony. The Ancients, as we are informed by *Dioscorides*, collected the Juice by the Incision of the Roots; which is certainly the best Way of obtaining it, for from the Wounds it distils pure and uncorrupted.

Scammony, by a chymical Analysis, is found to abound with Oil, joined with a pungent Salt; and after the manner of sharp alcalious Salts, tinctures the blue Paper with a more lively Colour.

It is an excellent purgative, powerfully discharges sharp bilious and serous Humours, and is of frequent use in all old obstinate Distempers; such as the Gout, Scurvy, Dropsy, Rheumatism, Apoplexy, Head-ach, Cachexy, Reliques of the venereal Distemper, &c. Several Physicians have loudly declaimed against the use of Scammony, and all scammoniat Medicines; and have given us a formidable Detail of the many fatal Inconveniences and Disorders which it occasions: That it generates Winds in the Stomach, which torture the Patient, and raise a Disposition to vomit; that by reason of an abounding acrid Quality, it is apt to exalt the Spirits to too great a Degree of Inflammation, to open the Mouths of the Vessels, and cause too plentiful Evacuations, to fret and corrode the

the Intestines and other Parts, whence follow Loosenesses, Dysenteries, &c. and that from some secret latent Malignity, it is rather an Enemy to the principal Vitals, than a Friend to Life: These *Mesue* has recounted, and from him *Matthiolus*, with their several Remedies, which we judge it not proper tediously to insist upon; repeated Experience and Observations having confirmed that Scammony, rightly prepared, and justly administered in a due Dose, is a most safe and noble Cathartic, either by it self, or joined with other Purgatives.

The most usual and common Preparations of Scammony are, 1st, *Diagrydium*, which is a Correction of Scammony, by baking it in an Oven in a hollowed Quince, covered over with a Paste. 2dly, Scammony sulphurated. 3dly, Scammony vitriolated. 4thly, The Extract of Scammony by the Spirit of Wine, the Magistery or Rosin of Scammony; the Extract of *Diagrydium*; some again prepare Scammony by dissolving it in the Juice of Lemons, others by mixing it with Cream or Salt of Tartar. Prepared Scammony is prescribed from gr. VI to XII, or $\mathfrak{z}$ l. The Powder of three Things, is prepared from equal Parts of Scammony, Cream of Tartar, and diaphoretic Antimony; the Dose is from $\mathfrak{z}\beta$ to $\mathfrak{z}$ II. The *Dyacidoniatum* of Scammony, or Scammony with Quinces, is thus prepared; take of Scammony prepared with Sulphur, gr. XII or XV, of Marmalet of Quinces a sufficient Quantity to make a Bolus for one Dose.

The best Scammony is brought from *Ahippo*, and that is to be chosen which is light, resinous, shining, of a greyish Black, not heavy, of a bitterish Taste, and a rank unpleasant Smell, easily crumbling into a Powder when rubbed between the Fingers, and not much inflaming the Tongue when tasted; that which is ponderous and black is either the expressed Juice of the whole Plant, or adulterated; for further Directions as to the Choice of this necessary Medicine, see *The History of Drugs*, pag. 215 and 26.

From what *Dioscorides* says of the Scammony, *lib. 4. cap. 165.* we learn three Things; 1st, That the Scammony of the

Ancients was the Juice of a rough hairy Bindweed, different from the *Syrian* Bindweed described above. 2dly, That it was milder, for the smallest Dose which he prescribes, is two *Oboli*, or gr. 24. To discharge bilious and phlegmatic Humours, he orders $\mathfrak{z}$ l of the Juice, and for a more effectual Evacuation, three *Oboli* or gr. XXXVI. of Scammony, two *Oboli* or XXIV gr. of black Hellebore, with $\mathfrak{z}$ l of Aloes, which makes *Matthiolus* suspect, either that the Text is here corrupted, or that we have now no pure unsophisticated Scammony sent us. 3dly, That the Ancients used it, not only as a Purgative, but externally in their Ointments and Liniments, for the Scab, Leprosy, and other Deformities of the Skin, for confirmed Head-aches, to dissolve hard and schirrous Tumours, and for sciatic Pains.

Scammony enters as a *Stimulus* in most purging Compositions; as in the Electuary of Prunes, the Electuary of Dates, and the *Benedicta Laxativa*, or blessed laxative Electuary.

The next Species which is of use in Physick, is the *Convolvulus Indicus, alatus, maximus, foliis Ibis nonnihil similibus, Turbith officinarum*, or the great Indian Bindweed, with Leaves like those of the Marshmallows, called the Turbith of the Shops; the Bark or Root of this Plant separated from the Pith, is only used in the Shops. The Roots chymically analyzed yield a volatile Salt, Oil and Earth; the Infusion thereof tinctures the blue Paper with a reddish Colour, after the same Manner as Salt Armoniac; they contain besides a glutinous Juice, which is wholly destroyed by the Operation of the Fire; they purge powerfully gross and clammy Humours, which they draw from the most remote Extremities, and are therefore highly beneficial in all chronic Diseases, especially the Gout, Asthma, Dropsy, Leprosy, the Venereal Distemper, &c. but as they are apt to cause loathing and vomiting, they ought to be corrected with Ginger, Cardamome, Cinnamon, Fennel, Grains of Paradise, &c. they are not to be given to Children, nor Women with Child; the Dose in Substance is from $\mathfrak{z}$ II to $\mathfrak{z}$ IV. but in Infusion



Tithymalus Spurge.

Fig. 1.



Fig. 2.

Glaux.

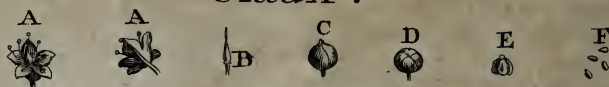


Fig. 3.

Oxys.



fusion from $\mathfrak{zI}$ to $\mathfrak{zIII}$. their purging Quality depends upon a Salt Armoniac involved in Sulphur and Earth. There is an Extract prepared from Turbith by the Spirit of Wine. Dose from $\mathfrak{z\beta}$ to $\mathfrak{zI}$. and a Vinegar recommended against the Plague, which is made by infusing Turbith, Rue, Myrrh, Aloes, &c. in Vinegar: It enters as an Ingredient in the Electuary of Dates, in the Blessed Laxative, Diacarthamum, and in the Electuary of Citrons, &c.

When the Roots are fresh, they commonly choose those that are thick, full of a milky Juice, and a resinous Gum; but as they are brought over to us dry from the *East-Indies*, and other Parts, we are to chuse those that are well cleansed, tough, and difficult to break, brown on the Outside, and whitish within; heavy, and guminous; such as are white, easily broken, worm-eaten, and light, are to be rejected.

Authors have very much differ'd about this Plant; it was entirely unknown to *Dioscorides*, but *Mesue* mentions it in his second Book of simple Medicines, affirming it to be the Root of a milky Plant, with the Leaves of Fennel-Giant, but lesser; whence a great many have mistaken the Thapsia for the Turbith, and use the Roots of it instead of the true Turbith; but as they are apt to inflame the Jaws and Stomach, they ought first to be steeped in Vinegar, or rather altogether disused, because of their violent Operation, and the horrid Symptoms which they cause, such as cruel Gripings, and dangerous Convulsions.

The *Convolvulus Americanus Mechoacan* diffus; Ray's American Bindweed, called *Mechoacan*, is the only remaining Species, remarkable for its physical Uses: Some Authors have wrote entire Volumes upon the Faculties of this single Plant, as *Everartus* at *Antwerp*, in the Year 1587, and *Goraeus* at *Paris*; and have launched out into hyperbolic commendations of its Virtues: Its Roots purge watry and serous Humours from all Parts of the Body, especially from the Head, Lungs, and Nerves, mildly, and without the least Violence; so that it may be safely given both to young and old,

in Cachexies, Catarrhs, Dropsies, the Venereal Distemper, &c.

The purging Faculty of *Mechoacan* proceeds from its Sulphur, and pungent Salt; yet its cathartic Power is very much blunted by a copious Quantity of Earth; so that it purges gently, removes obstructions, and purifies the Blood; whence it is commended in the Jaundice, Scurvy, Gout, and the other Distempers already mentioned. It is given to Children to the Quantity of $\mathfrak{z\beta}$, to those of riper Years to $\mathfrak{zI}$ or $\mathfrak{zII}$, and to such as are of a robust Constitution to $\mathfrak{z\beta}$, in any proper Vehicle. It may be given either in Substance, or in Infusion; the Infusion is for the most Part made in Wine, if there be no signs of a Fever, and if there be, in the Water of Endive: Yea, and then to be used with Caution; it is seldom or never given in Decodion, for in boiling it loses its cathartic Force.

An Extract and a Rosin are prepared from *Mechoacan*, either with white Wine, or Spirit of Wine, the Dose whereof is from $\mathfrak{z\beta}$ to $\mathfrak{z\beta}$.

Mechoacan is an ingredient in the catholick Extract of *Vicardus*, in the famous *Hydragog* of *Rhenodorus*, and in the *Hydragog* Syrup of *Charras*; the ancient Physicians were entirely ignorant of it; we are indebted to the *Spanish* Physicians and Surgeons for the first Discovery; they first brought it into *Europe* from the *Spanish West-Indies*.

It grows, as we have already mentioned, in *Mechoacan*, an Island of *New-Spain*, in *South-America*; but that which grows upon the Continent in the Province of *Nicaragua*, is the best and most valuable; the Inhabitants send it over cut into round flat slices; it ought to be chosen sound, solid, and compact, white and heavy.

TABLE II.

GENUS VI.

Tithymalus, Spurge,

IS a Plant with a Flower of one entire Leaf, A B C, of the globous Bell shape,
E 2 cut

cut into several Segments, and encompassed with two little Leaves DE, MN, which seem to perform the Office of a Flower-Cup; the Pointal FG, which is for the most part triangular, rises from the Bottom of the Flower, and is afterwards changed into a Fruit H of the same Shape, divided into three seminal Cells, enclosing Seeds IK, of an oblong Figure L.

Its Species are,

Tree-Spurge, *Tithymalus arboreus* Prosp. Alpin. Exot. 60. This is what Caspar Bauhin calls *Tithymalus myrtifolius arboreus*, Myrtle-leaved Tree-Spurge, Pin. 290. and what John Bauhin Names *Tithymalus Dendroides*, 3. 675.

This Tree-Spurge riseth with an upright Stem, as big as a Man's Thumb, from the Bottom, where for about half a Foot it is bare of Leaves; then it stretches out into several Branches, thick as ones Finger, whereon are set long narrow Leaves: The Flowers and Seed are yellow. It grows upon Rocks and Precipices; Ray found it in the mountainous Parts above Messina in Sicily.

Broad-leaved, Garden Tree-Spurge; it springs from the Seed of the former, but its Leaves are larger.

Tree-Spurge, with a tuberous or knobby Root, softer Leaves, and a rough warty Seed, (*Semine verrucoso aspero.*) Boccone's Mus. Part. 2. 109. Tab. 88.

African Tree-Spurge; this is the *Tithymalus Aphyllus*, or Tithymal without Leaves of J. B. 3. 676. And the *Tithymalo Aphylo*, *pianta di Mauritania*, of Ferrante Imperato. 664. Its Stalks are strait and naked, or at least bear but very few Leaves about the Middle of the Spring and Autumn, with pale-coloured Flowers, which dropping off in a little Time, leave the Stalks bare and naked for the rest of the Year; the Seed lies concealed within the autumnal Flowers, which, tho' perfectly ripe, grows not when sown in our Climate.

This Plant grows plentifully in the maritime Parts of Africa, and abounds with a white milky Juice, of a most sharp, pungent, and caustic Taste: The Ethiopians use it dried and powdered in their Sauces, as

we do Pepper; it is called in *Afric* by a Name which to us signifies Long-Pepper.

American Tree-Spurge, with a Leaf like to that of the *Venice Sumach*, *Cotini folio*. H. Amstel. 29. This is the Tree-Tithymal of Surinam with the Leaves and outward Form of *Venice Sumach*, (*Cotini five coccigiae foliis & facie*) of Breynius. Prod. 2.

American Tree-Spurge, with the Leaves of the *Venice Sumach*, but lesser, and growing in Whirls. (*Cotini foliis minoribus & verticillatim nascentibus*). Plumier.

American Tree-Spurge, with the Almond Tree Leaves blunted. (*Foliis Amygdali obtusis.*) Plumier.

American Tree-Spurge, with Toad-flax Leaves. Plumier.

Shrubby American Spurge, with Box-tree Leaves. (*Fruticosus, Buxi foliis.*) Plumier.

Ethiopian Tree-Spurge, with a Leaf like to that of the *German Mezercon*, and a pale-coloured Flower. H. Amstel. In 12^o. Pluk. Tab. 230. Fig. 1.

Foreign Wood-Spurge, with red Stalks (*Tithymalus Characias, rubens, peregrinus*) of C. B. Pin. 290. This is the *Tithymalus Amygdaloides*, five *Characias*, Wood-Spurge with Leaves like those of the Almond-Tree, of J. B. 3. 672. and the first Wood-Spurge of *Clusius*. Hist. 188.

It riseth for the most Part, but with one Stalk, sometimes more, half a Yard in length, and about the thickness of a Man's little Finger, covered with a reddish Bark, smooth at the Bottom, and marked only with the Appearance of Leaves, as if they were cut or wounded; but on the upper Part adorned with Leaves hard, smooth, and of a green Colour, larger and longer than those of the Olive, but smaller than those of the Almond-Tree; afterwards they branch out into several Twigs spreading like an Umbrella: The Flower is black, and is succeeded by a Fruit divided into three seminal Apartments, enclosing Seeds, which break and start out of the Husk, when ripe; the Root is hard and woody, it is found in the rocky Places about *Montpelier*, and in several rough and mountainous Grounds in *Italy*; and flowers in *March* according to *Clusius*. This Species is called by Gerard and Parkinson, *Tithymalus*.

malus Characias Monspeliensium, Montpellier Wood-Spurge.

Wood-Spurge, with Flowers shaped like a Crescent, (*lunato flore*) of *C. B. Pin.* 290. This is the Tithymal, *toto anno folia retinens*, that is never stripp'd of its Leaves, of *J. B.* 3. 671. and the Tithymal with horned Flowers of *Columna*, Part. 2. 57.

This Species from a Root, black without, and but small in proportion to the whole Plant, sends up several Stalks, a Foot in length, smooth, and of a red Colour at the Bottom, but from the Middle (whence shoot several Leaves circularly disposed in the Form of a Wheel) to the Top of a greenish Colour, and somewhat hairy, decked with little short round Leaves, alternately placed; from the uppermost Leaves some Branches rise, which bear round hollow Leaves at their Tops, out of which two others shoot, supported by little rushy Footstalks, hollow too, in Form of a Balon; within these the Flowers stand, of a greenish Yellow, composed of four little seeming Leaves, representing the Figure of the crescent Moon, with their little Horns bending outwards, and their gibbous Parts swelling inward and almost conjoin'd; within stand four yellow Threads, from whose Centre the Style rises, supporting a triangular Fruit; the Leaves are soft and hairy, of an ashy Green, one Inch in breadth, and four in length: This Species seems near allied to our common Wood-Spurge; nor is the crescent Form of the Flowers peculiar to it, but common to some other Sorts. *Ray.*

Wood-Spurge, with a downy Leaf (*Characias folio lanuginoso*) of *C. B. Pin.* 290. This is the second Wood-Spurge of *Clusius. Hist.* clxxxviii.

It differs little from the *Characias rubens peregrinus*, it sends up more Stalks from the same Root, its Leaves are softer, and covered with a hairy Down, and the Flowers of a pale Colour.

Wood-Tithymal, with a creeping Root. *H. R. Par. Mor. H. R. Blef.*

Tithymal, with a Leaf like to that of the greater Gromwel (*Lithospermi majoris folio*) in the Appendix of the *Botanicum Monspeliense*.

Broad leaved Tithymal, called *Cataputia*, *H. Lygd. Bat.* This is the *Lathyris major* of *C. B. Pin.* 293. The *Lathyris five cataputia minor* of *J. B.* 3. App. 180. and the *Lathyris* of *Matthiolum*.

From a Root single and undivided, and somewhat fibrous, this Species sends up a round solid Stalk, about the Thickness of a Thumb, covered with many Leaves, three Inches long, like to those of the Willow, of a bluish green Colour, and disposed in the Form of a Cross: The first Year after it is planted, it resists and supports the Winter's cold, and in the following Summer stretches out into Branches, upon which stand Leaves, shooting out in Pairs at every Flower, much different from those which adorn the Stalk, for from a broad Base they gradually lessen till they end in a sharp Point, somewhat hollow at first, but afterwards approaching in shape to the Ivy or Swallow-wort Leaf, of a yellowish-green Colour, without any mixture of blue; at each Flower the little Branches stretch out into two others still smaller, so that the Flower stands in the very Angle of their Division; it is of a pale yellow Colour, and cut into four Segments; the Seed-Vessel is pretty large, and divided into three Apartments: This Species is the *Lathyris major hortensis*, or the great Garden-Spurge of *Parkinson*, and the *Cataputia major & minor*, of *Gerard*.

Spanish broad-leaved Tithymal of *C. B. Pin.* 291. This is the third broad-leaved Tithymal (*Tithymalus Plataphyllos* III.) of *Clusius. Hist.* 438.

It rises sometimes with one single Stalk, a Foot in height, sometimes it is found branched out immediately from the Root; the Leaves are large and broad, ending in a blunt, and as it were orbicular Point, in shape like to the young Leaves of Wood, of a green Colour, thick and somewhat fat and fleshy to the Touch, swelling with a pale and sharp Juice; the Flower rises upon the little Branches, of a yellow Colour, inclining to a Purple, supported by hollow Cups, as are most others of this kind; the Root is thick and white.

Broad-leaved German Tithymal, of the Fields (*arvensis, latifolius, Germanicus*) *C. B. Pin.*

Pin. 291. This is the *Tithymalus Platyphyllos Fuschii*, *Fuschius's* broad-leaved Tithymal. *J. B. 3. 670. Fusch. Edit. in Fol. 813.*

From a single Root of a white Colour, and woody, with some Off-sets, it sends up a strait, round, smooth, and hollow Stalk, of a reddish Colour; sometimes from the Root there shoots but one, sometimes more, among which the middle one rises to the greatest Height, and surpasses the others; all of them emit several Branches, each whereof has a large Leaf, two Inches in length, and one in breadth, fixed at the Place whence it shoots from the Stalk: The Top of the Stalk spreads into several little Footstalks or Rays, imitating the Shape of an Umbrella, with one Flower in the Middle; the Place where they centre is deck'd with a Rose of oblong Leaves, finely dented and infected; each of these Footstalks is subdivided into others, and these last again into others after the same Manner, and every little branching is distinguished and adorned with a single Flower; the Flowers are of a yellow Colour, and are cut into four Segments or little seeming Petals or Leaves; they are succeeded by a Fruit smaller, and not so rough as that of the *Tithymalus Verrucosus*, so deeply cut into six Furrows, that tho' it contains but three, it appears to be divided into six seminal Cells; it is an annual Plant, yearly reviving from its own fallen Seed; yet sometimes it resists the Winters cold: It is found frequently in the Fields.

Tithymal with a Willow-Leaf, most finely toothed or indented, and downy. (*Salicis folio tenuissimè serrato, & villosa.*)

Tithymal of the Woods, with a more soft and downy Leaf. *Nemorosus, villosus, mollior. Barr. Icon.*

Broad-leaved Myrtle-Spurgie (*Myrsinites larifolius*) of C. B. Pin. 290. This is the *Tithymalus Myrsinites* of *J. B. 3. 674.* and the first Myrtle-Spurgie of *Tabernemontanus. Icon. 591.*

Tithymalus incanus, hirsutus, rough, hoary Tithymal. C. B. Pin. 292. *J. B. 3. 666.* *Tithymalus Characias pratensis, hirsutus. Bot. Monsp.*

From a thick Root it sends up various Stalks a Foot, sometimes more in length,

and of a red Colour, which are covered with long and broad Leaves, placed without any order, with their Edges gently indented, and covered upon both sides with a soft Down; the Flowers, of a yellow Colour inclining to a reddish Brown, are circularly disposed, so as to imitate the Figure of an Umbrella, as is common to most of this Kind; the seminal Vessels are triangular, covered with a Down, and some wart-like Excrecencies. Mr. Ray puts the Question, whether this Species be not much the same with that which Morison in his *Praludia*, calls *Tithymalus Characias lanuginosus*, downy Wood Tithymal, yet as Morison found it in the Woods of *Gallia Soloniensis*, (*Sologne*) concludes it rather a Variety of the *Tithymalus Sylvaticus*, or Wood-Spurgie, that keeps its Leaves throughout the whole Year.

Tithymal of the Island *Curacao*, with reddish Stalks, and Willow and Arrache-Leaves, rough and hairy, *Tithymalus Curassavicus, Salicis & Atriplicis foliis hirsutis, caulibus subrubentibus. Prodr. Par. Bat.*

Tithymal of the Island *Curacao*, with smooth Willow and Arrache-Leaves, and greenish Stalks. *Prodr. Par. Bat.* This is only a Variety of the former.

Dwarf-Spurgie, *Tithymalus, sive Esula exigua, C. B. Pin. 291.* This is the smallest narrow-leaved annual Spurgie of *J. B. 3. 664.* And the *Esula exigua*, or Dwarf-Spurgie of *Tragus Lob. Icon. 357.*

The Root of this Species is very small and slender, three or four Inches long; it sends up many little Stalks and Branches, which do not exceed the Measure of a Span in height, they are thick set with narrow Leaves, which end in a sharp Point, stand upright, and are full of a milky Juice; the Flowers are of a greenish Colour, the Fruit or seminal Husk triangular, as is common to all the other Species, and the enclosed Seeds greyish; it is an annual Plant, and commonly found in Corn-Fields; it is called by *Parkinson, Tithymalus Leptophyllus.*

Petty or Dwarf Rock-Spurgie, *Tithymalus exiguus saxatilis. C. B. Pin. 291. J. B. 3. 664. Bot. Monsp.*

It has a very slender Root, composed of small Threads or Strings, and somewhat long; the Branches or Stalks are small, not

extending above two Inches in length, adorned with short and narrow Leaves; the Flowers too are small and of a red Colour: Ray is of Opinion, that it differs nothing from the *Tithymalus Leptophyllos foliis obtusis*, but in the Smallness of all its Parts, which he says, is probably owing to the Barrenness of the Soil.

Dwarf-Spurge, with blunt-pointed Leaves, *foliis obtusis*, C. B. Pin. 291. J. B. 3. 664. In the *Botanicum Monspeliense*, there is exhibited a Figure of this Species, with one of the *Tithymalus exiguus saxatilis* or Dwarf Rock-Spurge.

Annual Spurge, with a sharp-pointed flax-Leaf. *Botan. Monspel.*

Sweet Mountain-Spurge, *Montanus non acris*, C. B. Pin. 291. This is the *Tithymalus non acris rubro flore*, sweet Tithymal with red Flowers of J. B. 3. 673. The *Esula dulcis* of *Tragus*, 298. and the Pithyusa, or second Dwarf-Spurge, with red Flowers of *Lobel. Icon.* 358.

The Root is somewhat long, fibrous, and knobby; the Stalks are at first of a purplish Colour, and branched, they rise to a Foot or two in height, and are covered with Leaves like to those of the *Tithymalus verrucosus*, ending in a roundish Point, the Top of the Stalk spreads into some little Branches, which shoot out other little slender Twigs, so disposed as to imitate the Form of an Umbrella; a Rose of oblong Leaves circles the Stalk at that part where it stretches out those little Branches; the Flowers which stand encompass'd within two hollow Leaves, are small, divided into four Segments, and of a red Colour; from the middle of the Flower, upon a short Footstalk the Fruit rises, small, of a triangular Shape, and rough, with some little tuberos Excrecencies, from its middle the Style shoots, and from the Side thereof another little Branch or Footstalk, which sustains two other Leaves, and between them another Flower and Fruit; the Liquor which distills from the wounded Plant is milky, as in all the other Spurges, but not of a sharp nor hot burning Taste, whence it had the Name of sweet Spurge; it is found upon the Mountains near to Geneva.

Myrtle-Spurge, with a Wart-like Fruit, *Myrsinitis, fructu verruca simili* of C. B. Pin. 291. This is what J. B. calls *Tithymalus verrucosus*, or Wart-like Spurge. 3. 673.

It has several slender Roots, which at last uniting, compose one greater, about the Bigness of the little Finger, woody, covered with a Bark black without, and white within, and full of a viscid milky Juice: It sends up several Stalks of a reddish Colour, slender, tough, and difficultly broken; thereupon in an alternate order the Leaves are disposed, covered with a fine Down, but more upon the under than the upper Side, whence it is, that below they appear of a brighter White than above, the under Leaves are sometimes found of a red Colour, and sometimes too the upper; the Flowers grow in Tufts, and are of a yellowish Colour; they are succeeded by little round Heads, rough, with many little wart-like Excrecencies, which shew like the smallest Grains of Sand; they are divided into three Parts, in which are contained three Seeds, in colour and shape like to those of common Clary, and of a white and fat oily Substance.

Narrow-leaved Myrtle-Spurge of C. B. Pin. 290. This is the second Myrtle-Spurge of *Tabernemontanus. Icon.* 592.

Mr. Ray is of Opinion, that this Species is the same with the *Tithymalus Myrsinites latifolius*, and that they ought not to be distinguished.

Tithymal with narrow Leaves, resembling those of the Almond-Tree, *Amygdaloides angustifolius*, of *Tabern. Icon.* 591. This is the *Tithymalo marino affinis, linaria folio*, or Tithymal, with a Toid-flax Leaf, of C. B. Pin. 291. The *Alypum* of *Camerarius*, *Epit.* 985. and the *Alypum Matthioli Tithymalis affine*, according to J. B. 3. 676.

Cypress-Spurge, *Tithymalus Cyparissias* of C. B. Pin. 291. This is the *Tithymalus Cypressinus sive humipinus* of *Lobel. Icon.* 356. and the *Esula Officinarum*, or common Spurge of the Shops of *Casalpin.* 374.

The Root is about the Thickness of a Man's little Finger, fibrous and woody, and sometimes creeping; the Stalks stretch a Foot, sometimes more in length, at first single

single and undivided, afterwards branched; the Leaves upon the Stalks before they branch, are like those of the Toad-flax, soft, but afterwards much more slender and narrow; the Flowers are disposed in a round Tuft or Cluster upon long Footstalks, which pierce the Leaves that encompass them, of a yellow Colour; their four little Segments, or seeming Petals, imitate the Shape of the crescent Moon, having their little Horns turn'd outward; their Chives too are yellow; they are succeeded by triangular Husks, in which the Seed is contained; all its Parts abound with a milky Juice.

The same Root emits several little Stalks whose Leaves are much shorter, roundish, and more fat and fleshy, marked upon the Outside with many little brownish Spots: Mr. Ray says, that he never observed these Branches flowered; and is of Opinion, that they are only an abortive Birth of the same Plant, tho' by some Authors it is esteemed a distinct Species.

This Cypress-Spurge remarkably varies, according to its Age and the Season of the Year, for it is often found in the Spring with red or yellow Flowers; it is found commonly upon the Banks of Meads and Hedges, but grows not wild in England.

Cypress-Spurge, with a little red Head, *Capitolo rubente* of C. B. Pin. 291.

Prosper Alpinus's Cypress-Spurge. *Exot. 65.*

Tithymal with a Toad-flax Leaf, and a Flower having its little seeming Leaves shaped in the Form of a Crescent, *Lunato flore. Moris. H. R. Bles.*

As these Marks agree with those of the Cypress-Spurge, as described by *John Bauhin*, Mr. Ray takes it to be the same Species.

Tithymal with Pine-Leaves, perhaps the *Pithyusa* of *Discorides*, *Pini foliis, forte Dioscoridis* *Pityusa*. C. B. Pin. 292. This is the *Tithymalus Cyparissie similis*, *Pityusa multis* of J. B. 3. 665. and the *Tithymalus Pineae*, or Pine-Spurge of *Lobel. Icon. 357.*

This rare sort of Spurge, tho' it resembles the common Cypress-Spurge, yet it differs from it in its Root, which is longer, thicker, and less fibrous; and in its Leaves, which are thicker, firmer, and of a more bluish Green, and thicker set upon the Stalks; the Botanical Authors have wrote

so confusedly of the Cypress and Pine Spurges, and so blended them in their Descriptions, that 'tis very difficult to distinguish the one from the other; this is described by *Parkinson*; under the title of *Cyparissias vulgaris*, or common Cypress-Spurge, and this last under the title of *Pityusa Tithymalus Pineae sive Esula minor*.

The *Pityusa* is thus described by *Dioscorides*; the Stalk, says he, rises above a Cubit high, full of Joints; the Leaves are like those of the Pine-Tree, slender, and sharp-pointed; the Flower is small, and of a purplish Colour, the Seed is broad and flat like Lentils, the Root thick, white, and full of Juice.

Sea-Spurge, *Tithymalus maritimus*. C. B. Pin. 191. This is the *Tithymalus Paralius* of J. B. 3. 674. and of *Dodonaeus Pemp. 370.*

From a Root, long, thick, and woody, it sends up several woody and red Stalks, which rise to a Foot or half a Yard in height, thick set from top to bottom with long narrow Leaves, yet somewhat broad in the Middle, like to the Leaves of Flax, but thick, and of a whitish or pale Green, and abounding with a milky Juice, extremely sharp and caustic to the Taste: Upon the Extremities of the Stalks the Flowers rise, supported by slender Twigs or Footstalks, so disposed as to imitate the Shape of an Umbrella, as is common to all the Spurges: They are of a pale yellow Colour, and have each of them two broad Leaves encompassing the Twigs or Footstalks upon which they stand; they are succeeded by triangular Husks, divided into three feminal Cells, as in all other Species; it is commonly found upon sandy Banks near to the Sea.

Tree-Spurge, with Leaves like to those of the Line or Flax, *arboreus, linifolius*. H. R. Par. This is the Sea-Spurge, with a Juniper-Leaf, of *Boccone Rar. Plant. 9.*

In its Growth it resembles the Tree-Spurge; the Stalk rises a Foot and more in length, in its upper Part stretching out various Branches, which are thickly covered with long Leaves, like to those of the Juniper, but softer and lesser, approaching in shape to those of the *Tithymalus Leptophyllos*; the Flowers and Seed-Vessels differ nothing from those of the other Spurges;

ges; it is a perennial Plant: *Parkinson's* Description of the common Cypress-Spurge, so nearly agrees with this, that *Ray* reasonably questions whether this Species be not the same with the *Cyparissias vulgaris* of that Author. *Boccone* discovered it upon the sandy Coasts near to *Marsailles*, as did *Ray*.

Thorny Sea-Spurge, *maritimus*, *spinosus*, *C. B. Pin.* 291. This is the *Tithymalus Ragnusinus*, *flore luteo*, *pentapetalo*, in *Herman's* Catalogue of Plants in the physick Garden, at *Leyden*. *H. Lugd. Bat.*

It is described by *Parkinson* under the Title of *Tithymalus maritimus Creticus spinosus*, or thorny Sea-Spurge of Candy.

Narrow-leaved Wood-Spurge, *Characias angustifolius*, *C. B.* 290. This is the third narrow-leaved Myrtle-Spurge of *Taverner*. *Icon.* 592.

Wood-Spurge, with an indented Leaf, *Characias, folio serrato*, *C. B. Pin.* 290. This is the *Tithymalus serratus Dalechampii*, of *J. B.* 3. 675. and the fifth Wood-Spurge of *Dodonæus*. *Pempt.* 369.

It sends up a Stalk half a Yard high, the Leaves are narrow, and about an Inch in length, for the most Part not sharp-pointed, but roundish, smooth, and have their Edges dented; but those that encompass the Rays or Twigs of the Umbel, extend more in breadth than length; yea, some of them are round, with their Edges notwithstanding infected; the Flowers which stand in hollow Leaves or Cups, are yellowish; the Head, Husk, or Fruit which succeeds, is triangular, supported by a slender Foot-stalk, and near in bigness to that of the Myrtle-Spurge; it grows in plenty about *Nemours* and *Montpelier*.

Wood-Spurge, with a Root shaped like a Pear, *Characias, Radice Pyriformi*. *Morif. H. R. Bles.* This is the *Tithymalus seu Ichus Ranunculi radice, capsula molliter echinata* of *D. Fagon*. *Schol. Botan.* 124.

Wood-Spurge, with the Leaf of the small Willow, *salicis minoris folio*. *Morif. H. R. Bles.*

Tithymal with a tuberous Root, shaped like a Pear, *C. B. Pin.* 292. This is the *Apios* of *J. B.* 3. 666. and the knobby rooted Spurge, or *Ichus* of *Clusius*. *Hist.* CXC.

This Species is called *Apios* by the *Greeks*, from the pear-like or conical Shape of its

Root, which has several Excrescencies, whereby it is easily distinguished; it sends up some little Stalks, about a Hand-breadth in length, covered with Leaves like to those of the *Esula Rotunda* or *Peplus*, but smaller, from a narrow Beginning, gradually widening, and round at the Extremities; it is brought from Candy, and nursed only in the Gardens of the Curious: *Imperatus* tells us, that it is found too in *Apulia*, and near to *Naples*.

Tithymal with a long knobby Root, *tuberosa, oblonga radice*, *C. B. Pin.* 292. This is the *Apios seu Ichus altera* of *J. B.* 3. 667. and the *Ichus altera*, or second *Ichus* of *Clusius*. *Hist.* CXCI.

The Root of this Species is tuberous, but almost of an equal Thickness throughout, and not tapering or shaped like a Pear, as the preceding, an Inch, sometimes two Inches, long, having four other Roots, gradually lessening and diminishing in thickness, with some few Fibres, issuing from its Extremity: Without, it is of a blackish Colour, and white within, and full of a milky Juice; it emits five or six little Branches, which stretch along the Ground, and are of a purplish Colour near to the Root, set with small green Leaves, like to those of the former, without any order: These are again subdivided into others still smaller and slenderer, which bear two Leaves oppositely placed, somewhat rounder, between which the Flower rises, of a reddish Yellow; and is succeeded by a little triangular Head or Husk, rough, with small knobby Excrescencies, in which the Seed is contained.

Shrubby, Marsh-Spurge, *Tithymalus palustris, fruticosus*, *C. B. Pin.* This is the *Tithymalus magnus multicaulis, seu Esula major*, the great Spurge with many Stalks of *J. B.* 3. 671. and the *Esula major*, or great Spurge of *Dodon.* *Pempt.* 374.

This is a Plant of a most luxuriant Growth, when it meets with a fertile Soil; the Root is woody and white, thick as a Man's Arm, yea sometimes much exceeding it, widely spreading under Ground, and perennial; it emits various Stalks, about the bigness of a Man's little Finger, of a reddish Colour, and very much branched; the Leaves are like those of the *Cataputia*

minor, or lesser Spurge, but much smaller, and drop off in the Winter; the Flowers are yellowish, and stand in clusters; the Seed contained in triangular Husks, is not unlike that of the other Sorts; it is rarely found in *England*, *France*, or *Italy*, except in Gardens; but grows in plenty in the upper and lower *Germany*, near to the Banks of the *Rhine*.

Broad-leaved, *Portugal-Spurge*, with a Fruit exactly triangular, *Tithymalus Lusitanicus*, *fructu exquisitè triangulari*.

Tithymalus Olea folio glauco Narbonensis.

Smooth, Dwarf-Spurge, with a Pennywort Leaf, *Tithymalus exiguus, nummularia folio, glaber*; the *Chamaesyce* of *J. B.* 3. 667. and of *Dodon. Pempt.* 377.

Dwarf-Spurge, with a Pennywort Leaf, and downy. *Chamaesyce villosa, major, cauliculis viridibus. Schol. Bot.* 122.

Tithymal with round Leaves, not indented, *rotundis foliis, non crenatis. H. Lugd. Bat.* This is the *Peplus*, *sive Esula rotunda*, round-headed or petty Spurge of *C. B. Pin.* 292. The *Peplus*, *sive Esula rotunda* of *J. B.* 3. 669. and the *Peplus* of *Dodonæus, Pempt.* 375.

This is a small Plant, not rising a Foot high, full of a milky Juice, like to the *Tithymalus Helioscopius*, or Sun-turning-Spurge, and as it were a Variety of it, but smaller in all its Parts; the Stalks are reddish, the Leaves small, somewhat long, and round-pointed, their Edges smooth, without any Incision, by which mark it is plainly distinguished from the *Tithymalus Helioscopius*, the Flowers are disposed in round Tufts; the Fruit and Seed differs nothing from that of the other Sorts: The Root is slender, fibrous, and annual; it grows in Gardens and Vineyards.

Sun-Spurge, or Wart-wort, *Tithymalus Helioscopius, C. B. Pin.* 291. *Dodon. Pempt.* 371. This is the *Tithymalus Helioscopius, sive solissequus*; Sun-following Spurge, of *J. B.* 3. 669.

The Root is single and undivided, white, strait, with some few fibres; it sends up but one Stalk, half a Foot, sometimes a Foot in length, round, and somewhat hairy; it is set pretty thick with Leaves, which resemble those of Purslain, a Finger,

sometimes a Finger and a half, long, and ending in a roundish Point, finely cut and infected at the Edges; five slender Twigs shooting from the Top of the Stalk, compose a sort of Umbrella, and are encompassed with so many Leaves, greater and more round than those upon the Stalk; each of these Twigs branch out into three others, adorned with a like Number of Leaves; the Flowers are placed in the Branchings of the Stalk and Twigs; they are small and of a grassy Colour: From the middle of the Flower the Pointal rises, and afterwards changes into a triangular seminal Husk, which is divided into three Lodges or Seed-Apartments: The whole Plant abounds with a sharp milky Juice; 'tis said that the Umbel or Tuft of Flowers turns with, and follows the Course of the Sun; and that from hence it derived its Name.

Upright, annual Spurge, with a long and sharp-pointed Leaf, *annuus, erectus, folio oblongo, acuminato*: This is the *Peplis annua, foliis acutis, flore muscoso*, of *Boccone. Rar. Plant.* 24.

Annual Spurge, with its Stalks lying stretched upon the Ground, and a more round and pointed Leaf, *supinus, folio rotundiore acuminato*: This is the *Peplis minor* of *J. B.* 3. 670. and the *Peplis*, or *Peplus minor* of *Tabern. Icon.* 597.

Sea-Spurge, with a Leaf bluntly pointed, having ear-like Appendices, and of a red Colour, as is the Stalk, *folio obtuso, aurito, rubro perinde ac caule*. This is the *Peplis maritima, folio obtuso*, of *C. B. Pin.* 293. The *Peplis* of *J. B.* 3. 668. and of *Clusius. Hist. CLXXXVII*.

Sea-Spurge, with a round or blunt-pointed Leaf, having ear-like Appendices, and green, as is the Stalk; *folio obtuso, aurito, viridi perinde ac caule*: This is the *Peplis maritima, folio obtuso, caule viridi*, in the *H. Reg. Par.*

Sicilian-Spurge, with a Fruit divided into several seminal Lodges, and a Leaf like to that of the Purslain, *Siculus Polycoccus, portulaca folio. Bocconi. Rari. Plant.* 39.

Perennial-Spurge, with a short, and round-pointed Leaf, *Tithymalus perennis, folio breviori & obtuso*.

Spanish-Spurge, with a longer Leaf, shaped like a Heart, *Tithymalus Hispanicus*, folio longiori, cordiformi.

Tithymal of Aleppo, with a roundish and hoary Leaf, *Tithymalus Alepicus*, folio subrotundo, incano.

American-Spurge, with its Branches spread upon the Ground, indented Leaves, and Flowers standing in knots fixed to the Branches, *humifusus, serratus, floribus in Capitulum alis adherens, congestis*. *Plumier*. This is the *Tithymalus dulcis*, *Parietarie foliis hirsutis, floribus ad Caulium nodos conglomeratis*, sweet Spurge, with hairy Leaves, like to those of Pellitory, and Flowers standing in Clusters at the Joints of the Stalks, of Dr. Sloane. *Cat. Plant. Jamaic.* 82.

American-Spurge, with upright Stalks, indented Leaves, and Flowers standing collected into a little Head, Tuft or Cluster, supported by a long Footstalk, *erectus, serratus, floribus in Capitulum longo pediculo insidens, congestis*. *Plumier*.

Wood-Spurge of Candy, with narrow Leaves, hoary and downy, *Tithymalus Characterias Creticus, angustifolius, villosus & incanus*.

Tithymal of Candy, with its Branches spread upon the Ground, and a Rupturewort Leaf, *supinus, Herniaria folio*.

Grecian-Spurge, with a most sharp-pointed Leaf, like to that of the Almond-Tree, of a bluish Green, and a purple Stalk, *Tithymalus Gracus, Amygdali folio acutissimo & glauco, caule purpureo*.

Annual Grecian-Spurge, with a Leaf like to that of the red Valerian, *Tithymalus Gracus, annuus, valeriana rubra folio*.

Great Sun-Spurge of Greece, with Leaves exquisitely infected, *Tithymalus Gracus, Helioscopius, maximus, foliis eleganter crenatis*.

Oriental Marsh-Spurge, with a knobby Root, and the Face or Appearance of the Lathyrus, *Tithymalus Orientalis, palustris, tuberosa radice, Lathyridis facie*.

Oriental-Spurge, with a very broad Leaf, covered with a rough Nap or Down, and a golden-coloured Flower, cut into round Segments — *Latissimo folio, villosus, flore aureo, Segmentis rotundioribus*.

Oriental Spurge, napped with a fine Down, having a very broad Leaf, and

Flowers shaped like a Crescent — *Latissimo folio, villosus, flore lunato*.

Small oriental Spurge, with a Pennywort Leaf. — *Minimus, Nummularia folio*.

Oriental Spurge, with a Leaf like to that of the Orpine, and a large crested Flower — *Anacampterosotis folio, flore magno, cristato*.

Oriental Spurge, with an Orpine Leaf, finely indented, and a lesser Flower, but not crested — *Anacampterosotis folio, tenuissimè serrato, flore minori, non cristato*.

Oriental Spurge, with a very broad smooth Leaf, of a bluish Green — *Latissimo folio glauco & glabro*.

Oriental Spurge, low and spreading, with a downy willow Leaf — *Patulus & humilior, folio salicis villosus*.

Oriental Spurge, with a Willow Leaf, a purple Stalk, and a great Flower — *Salicis folio, caule purpureo, flore magno*.

The lowest oriental Spurge, with a Toad-flax Leaf — *Orientalis humillimus, linnaria folio*.

Oriental Spurge, with a very long and narrow Leaf — *Longissimo & angustissimo folio*.

Oriental Cypress-Spurge, with spreading Branches, its upper Leaves shaped like a Spear, and a small Flower — *Orientalis Cyparissias, patulus, foliis superioribus hastatis, flore minimo*.

Oriental Spurge, with a Willow-Leaf, small and smooth, and a Fruit covered with wart-like Excrescencies — *Salicis folio, minor & glaber, fructu verrucoso*.

Oriental Spurge, with a most sharp-pointed Flax-Leaf — *Lini folio acutissimo*.

Tree-Spurge, low and spreading, with a broader Leaf — *Arboreus, humilior & patulus, latiore folio*.

Tree-Spurge, low and spreading, with a narrower Leaf — *Arboreus, humilior & patulus, angustiore folio*. A Variety of the former.

All the Spurges yield a milky Juice, whence 'tis thought they borrowed or derived the Name of *Tithymalus*; which is a Greek word compounded of *τιθη*, which signifies a Breast, and *μαλακός*, which signifies soft, the Composition importing a soft or tender Breast; but would the Ap-

pellation be ridiculous if the Plant did not yield a milky Liquor?

The Spurges by a chymical Analysis yield a large Quantity of Oil, Earth, and acid Liquors; but an Acid is chiefly predominant in the Roots, upon which account they are sharper than the Leaves; the milky Juice seems to proceed from the large Quantity of Sulphur, which being diluted by the serous Phlegm, is turned into a whitish Liquor, in the same Manner as it happens, when Emulsions are prepared from oily Seeds,

All the Spurges almost are purgative, and work violently both by Stool and Vomit; but as they are endowed with a most sharp and caustic Quality, especially their milky Juice, they inflame and exulcerate the Parts, are very offensive to the Stomach, and create torturing Pains in the Bowels, so that they cannot be taken inwardly without great Prejudice, and are not to be administered without the greatest Caution, and after due Correction, which is done by steeping them in Vinegar, or other Acids: They evacuate bilious, phlegmatic and watry Humours, and are consequently useful in the Gout, Dropsy, and other obstinate Distempers; externally applied, they eat and corrode the Skin, cure all sorts of Warts, and other such like Excreescencies, cleanse foul and carious Ulcers, running Sores, and remove Scurf, Scab, and all other Deformities of the Skin; to these may be added, That if any Person shakes the extracted Juice, and immediately thereupon smells to it, it will raise violent, and often mortal Sneezings.

The Species of the most common use are; 1st, The *Tithymalus Cyparissias* of C. B. Cypress-Spurge, or the *Esula Officinarum*. 2dly, *Tithymalus foliis Pini, forte Dioscoridis Pityusa*, &c. Pine-Spurge; 3dly, *Tithymalus latifolius Cataputia dictus*, broad-leaved Spurge, or *Cataputia*, &c. The Apothecaries however, use that kind for the most Part which grows nearest to the Place where they dwell, in which they are not to be discommended, seeing they all agree in the same Virtues.

The Leaves of the Cypress-Spurge are stiptic, without any acrimony or bitterness, and give a red Colour to the blue

Paper; but the Roots tincture it with a much deeper Red; they taste at first like the Leaves, but leave at last a great Sharpness in the Throat, so that 'tis highly probable, the Roots of this Plant contain a Salt nearly approaching in Nature to Al-lum, but much involved and fettered in a large Quantity of resinous Sulphur, and this mixture, as has been already insinuated, whitens the Phlegm of the Plant; it is an excellent Hydragog; but it is not without good reason that it is corrected by being steeped in Vinegar, or in the Solution of the Cream of Tartar; for if it is swallowed but in a small Quantity, it leaves not only an intolerable Sharpness, but such a Fire and Heat as communicates it self from the Throat to the *Oesophagus*; yea, and to the Stomach; it is a Purgative proper in Hydropsies, Cachexies, and intermittent Fevers, and applied to evacuate those Humours which resist the Force of ordinary Catharticks: Ten, twelve, or twenty of the Seeds purge downwards. *Fernelius* used the Root of this Plant as the Basis of the Pills, which he calls *Pilula ex Esula*; the Dose whereof is ʒII. The Roots of this Species enter as an Ingredient in the Compositions commonly known under the Names of the *Benedicta Laxativa*, *Hydragogum eximium Rhenodai*, *extractum eximium* & *Cholagogum Rolsinchii*, &c.

The Roots of the *Cataputia* are not used; the Seeds purge violently, but rarely used: The Peasants sometimes swallow six, seven, or twelve of them in a little warm Broth, or boil about twenty of them among Pot-Herbs.

The Pine-Spurge agrees in its Virtues with the first, but operates with greater Violence; its Roots, Bark of the Root, and Leaves are in use; but to be administered with the utmost Caution.

The Bark of Spurge Roots may be given in Substance, after it has been steeped twenty-four Hours in very sharp Vinegar, from ʒI to ʒI, but in Infusion to ʒII; it may be corrected with some Drops of the Spirit of Sulphur, or Cream of Tartar; an extract may be prepared from the whole Plant, bruised and infused in White Wine, to be prescribed from ʒß to ʒI.

From the Roots, Leaves, and milky Juice of the *Efula major*, or great Spurge, an admirable Ointment is prepared, of singular Efficacy against the running Scab of the Head.

We find eleven Species of the *Tithymalus* mentioned by *Discorides*, with their Descriptions and annexed Virtues.

Characias Amygdaloides, the *Characias rubens*, *peregrinus* of C. B. Wood-Spurge; the Roots, Leaves, and Seed have a sharp and caustic Quality; the Juice is a violent Purgative, and powerfully evacuates phlegmatic and bilious Humours; the milky Liquor mixed with Oil, makes the Hair fall off from any part, if anointed therewith: Drop'd into the hollow Cavities of the Teeth, it cures the Pain; but care must be taken that it touch no other Part, because it ulcerates and corrodes; it likewise cures the Scab, Scurf, running Sores, and other such like cutaneous Distempers; cleanses all fistulous and carious Ulcers, and eats off all Sorts of Warts; the other six subsequent Species, which are the Myrtle-Spurge, the Cypress-Spurge, the Sea-Spurge, the Tree-Spurge, the broad-leaved Spurge, and the Helioscopius or Sun-Spurge, are possessed of the same Powers: The Leaves and Roots bruised and thrown into a Pond or River, kills the Fish, for it immediately stuns and stupifies them, so that they rise to the Surface half dead, and are easily taken, some attribute this virtue particularly to the *Platophyllos* or broad-leaved Spurge.

Pitysfa, or Pine-Spurge, 3II of the Root given in Hydromel purges by Stool; the Dose of the Seed is 3I; of the Juice two Spoonfuls made into Pills with Flower, and of the Leaves 3III.

Lathyrus, the Root is not used; six or seven Grains of the Seed purge downwards; the Juice has the same Powers with that of the other Spurges; the Leaves boiled in Broth, with other Pot-Herbs, produce the same Effect. *Matthiolus* adds from *Aetnarius*, That it is a most violent Cathartic; fifteen of the greater Seeds, and twenty of the lesser is the Dose; if swallowed whole they operate gently, but if chewed, with greater violence; ten or twelve Grains stripped of their Husks, and bruised thin,

taken in an Egg, work powerfully by Vomit: In short, he ascribes to this Species all the Virtues of the *Ricinus* or *Palma Christi*.

Peplus or *Efula rotunda*, Petty-Spurge; the Seed bruised and taken in Hydromel, evacuates Phlegm and Choler; the Leaves were usually reserved for Pickles; the *Pepalis* or purple Sea-Spurge has the same Virtues. L

Chamaesyce or Thyme-Spurge; the young Branches bruised in Wine, and used as a Pessary, ease and cure the Pains of the Womb; they discuss Tumours, and eat off all sorts of Warts, boiled in Broth they are purgative; the Juice is endowed with the same Qualities: Externally applied, it cures the Bitings of Serpents, and is esteemed useful to remove Dimness of Sight, Suffusions, Films, and Scars of the Eye, being mixed with Honey and the Part therewith anointed.

Apios or round knobbed-rooted Spurge; the upper Part of the Root purges by Vomit, the lower Part by Stool, the whole both Ways, as does the Juice.

TABLE VIII. Fig. 2.

GENUS VII.

Glaux, Milk-wort,

IS a Plant, with a Flower of one entire Leaf A, in the Shape of a Bell, its Brim either expanded or shut, and cut into several Segments: From its Centre the Pointal B rises, which is afterwards changed into a Fruit or Husk C D, for the most Part, round, opening from the Top downwards, and enclosing small Seeds F, adhering to the Placenta E.

Its Species are,

Sea Milk-wort, or black Salt-wort — *Glaux maritima* of C. B. 215. This is the *Glaux exigua maritima*, or small Sea Milk-wort of J. B. 3. 373. *Lobel. Icon.*

It has many small and slender Stalks, which spread and creep upon the Ground, and take Root again by the help of some slender

slender stringy Fibres, which they emit from their Joints; the Leaves are like those of Rupture-wort, placed at the Joints two and two in opposition; the Flowers according to *Parkinson* and *Gerard*, are purple, and are succeeded by little Buttons or feminal Husks, enclosing the Seed.

Sea Milk-wort, with a white Flower, *Glaux maritima flore albo*.

Marsh Milk-wort, with a striated or channelled Flower, having its Mouth or Brim shut, and Leaves like those of Purslain, *Glaux palustris, flore striato, clauso, foliis Portulacae*.

This Plant is of no use in Physick that I can find; some Botanical Writers tell us, That it is commonly eat by Way of Sallad, and especially by Nurses to restore and encrease the Milk in their Breasts, and that from this Effect it derived its Name *Glaux* *quasi γάλαξ* or *γάλαξ* which signifies Milk.

TABLE VIII. Fig. 3.

GENUS VIII.

Oxys, Wood-Sorrel,

IS a Plant with a Flower of one single entire Leaf A, in the Shape of a Bell, having its Brim wide expanded, and cut into several Divisions; the pointal D, which is fixed like a Nail in the bottom Part of the Flower B, rises from the Flow-Cup C, and is afterwards transformed into an oblong membranous Fruit EF, divided into five feminal Cells, 1, 2, 3, 4, 5, opening outwards from the Base to the Top, and enclosing Seeds which often start from their Lodges, by reason of the elastic Force of the Calyptra or thin Membrane, in which each of them lie involved.

Its Species are,

Wood-Sorrel with a white Flower, *Oxys flore albo*. This is the *Oxys* *sive* *Trifolium acidum, flore albo* of *J. B. 2. 387*. The *Trifolium acetosum vulgare, flore lacteo* or common Wood-Sorrel, with a milky Flower of *C. B. Pin. 330*. and the *Trifolium acetosum* of *Dodoneus, Pempt. 578*.

The Root is somewhat thick, scaly, and white, or from a White inclining to a red Colour, with many long Strings or Fibres annexed; it sends up no Stalks. but several weak, slender, and round Footstalks, of a whitish Colour, and but a Hand-breadth in length, which support three pretty large Leaves, broader than long, shaped like a Heart, hairy, and of a greenish Yellow, and a sour Taste: From among these rise other little Footstalks, each sustaining a large Flower, of a white Colour, and channelled; the Fruit or Husk is pentagonal, the Seed of a brownish red Colour, and striated; it grows commonly in *England*, in such Places as are shadowed from the Sun, in Woods, and near to Hedges.

It is an Observation of *Fuchsius*, confirmed, as he says, by frequent Experience, that when this Plant is more than usually charged with Flowers, their abundance presages for that Year great Rains and Inundations; and that upon the contrary, when it is but thinly deck'd, the small Number foretells a dry Season.

Wood-Sorrel, with a purplish Flower, *Oxys flore purpurascens*. This is the *Oxys* *sive* *Trifolium acidum, flore purpurascens* of *J. B. 2. 387*. and the *Trifolium acetosum vulgare, flore purpurascens*, or common Wood-Sorrel, with a purplish Flower, of *C. B. Pin. 330*.

The Colour of the Flower constitutes the Difference between this and the first.

Wood-Sorrel, with a bluish Flower, *Oxys flore subcaeruleo*: This is the *Trifolium acetosum vulgare, flore subcaeruleo* of *C. B. Pin. 330*.

Wood-Sorrel, with a yellow Flower, *Oxys lutea, J. B. 2. 388*. This is the *Oxys, sive* *Trifolium acetosum, flore luteo, Oxys* or Wood-Sorrel, with a yellow Flower of *Dodon. Pempt. 579*. And the *Trifolium acetosum corniculatum* or Wood-Sorrel, with little horned Seed-Pods, of *C. B. Pin. 330*.

It spreads upon the Ground, with many little slender, creeping Stalks, a Hand-breadth, or a Hand-breadth and a half in length; the Leaves are smaller than those of the common Wood-Sorrel, more deeply cut at the Extremities, so that their Figure more exactly imitates the Shape of a Heart, as 'tis usually painted; they are too more rough

rough and hairy, and stand three together upon very slender and short Footstalks, which shoot from the Stalks, and of a fowr Taste; the Flower spreads and expands in form of a Star, and is of a yellow Colour; it is succeeded by a horned Pod or Husk, almost an Inch long, somewhat thick, and leafy, and divided into five feminal Cells; which, when ripened, at the least touch open, and throw out with some Force, several small Seeds, rough, and of a reddish brown Colour, their Sides immediately thereupon shutting, that it scarce appears the Seeds have started from the Husk; the Root is somewhat long, slender, and fibrous.

It is an annual Plant, reviving from its fallen Seed, and grows in plenty in Italy and Sicily, especially in shady Places; it flowers throughout all the Summer.

Upright, *American Wood-Sorrel*, with a yellow Flower, *Oxys lutea, Americana, erectior*: This is the *Trifolium acetosum, corniculatum, luteum, magis erectum, Indicum* five *Virginianum*, that is, Indian or *Virginian Wood-Sorrel*, with more upright Stalks, a yellow Flower, and horned Seed-Pods, of *Morison. Hist. Oxon. Part. 2. 184.*

American Wood-Sorrel, with a red Flower, and a fibrous Root, *Oxys Americana, rubro flore, fibrosa radice*: This is the *Trifolium acetosum, Americanum, rubro flore*, of *Barrelier. Icon. Boccon. Mus. Part. 2. 63. Tab. 51.*

It rises to the Height of a geometrical Foot.

Shrubby, *American Wood-Sorrel*, with a yellow Flower, and the Form of stinking Trefoil, *Oxys lutea, frutescens, Americana, Trifolii bituminosi facie. Plumier.*

Virginian Wood-Sorrel, with a purple Flower, and a scaly Root, *Oxys purpurea, Virginiana, radice squamata*: This is the *Oxys purpurea, Virginiana, radice Lilii more nucleata, capitulis postquam desloruerit bulbillis ut in Allio Corvino confatis. Pluknet. Phytog. Tab. 102. Fig. 4.*

African Wood-Sorrel, with a bulbous Root, round Leaves, and large purple Flowers, and Stalks of the same Colour, *Oxys bulbosa, Africana, rotundifolia, cauli-*

bus & floribus purpureis amplis, H. Amstel. 41.

African Wood-Sorrel, with a bulbous Root, round Leaves, green Stalks, and great purple Flowers, *Oxys bulbosa, Africana, rotundifolia, caulibus virentibus, floribus amplis purpureis*: This is the *Oxys affinis planta, bulbosa, Africana, flore purpureo, magno, of Breynius. Cent. 1. 46.*

Small *Ethiopian Wood-Sorrel*, with a bulbous Root, a Leaf shaped like a Heart, and a Flower from a white inclining to a purplish Colour, *Oxys bulbosa, Ethiopica minor, folio cordato, flore ex albedo purpurascente. H. Amstel. 43.*

All the Species of this Kind have three Leaves upon each Footstalk, shaped like a Heart, as it is usually painted, and of an acid Taste, from whence the Name is derived; for the Greek word *ξύς* signifies that which is sharp or fowr; but these are nothing essential to the proper Characteristic.

The two first Species, viz. *Oxys flore albo*, and *Oxys flore purpurascense*, *Wood-Sorrel* with white and purplish Flowers, known in the Shops under the Names of *Lapula, Acetosella*, or *Atelwia*, are of common Use; it has all the Virtues of the *Acetosa* or common Sorrel, and is by some esteemed of greater Efficacy; it is cooling and aperitive, abates the preternatural Motion of the Humours, quenches Thirst, allays the Heat of the Stomach and Liver, and fortifies the Heart; and is consequently of excellent use in all inflammatory Diseases; it restores a decayed Appetite, and stops vomiting; a Conserve is prepared from its Leaves, and a distilled Water, and a Syrup from the Juice, singularly useful in all the above mentioned Cases; its Seed is esteemed a Specific in a Dysentery; the Root dried and boiled tinctures the Water with a red Colour: And a Decoction thereof with Harts-horn may be given to very good Purpose in all manner of Fluxes; the distilled Water, or the Juice externally applied, to *Erysipelas* or hot Tumours, cools and diffuses, and cleanses foul Ulcers; a Gargle of the distilled Water cures any Ulcer in the Mouth, &c.

S E C T. IV.

Of Herbs, with a Flower of one entire Leaf, in the Shape of a Bell, and a Pointal changing into one single Seed.

T A B L E IX. Fig. 1.

G E N U S I.

Rhabarbarum, *Rhubarb*,

IS a Plant with a Flower ABC, of one entire Leaf, in the shape of a Bell, and cut into several Segments: From its Bottom rises the pointal D, which afterwards turns thicker E, and contains a triangular Seed FG, which when ripe, adheres so closely to its triangular Husk H, that it can't be separated from it.

I know but one Species of the Rhubarb,

The Rhubarb, probably of *Discorides* and the Ancients, *Rhabarbarum forte Dioscoridis & Antiquorum*; the *Rhaponticum* of *Prosper Alpinus*. *Exot.* 187.

At its first Appearance out of the Ground, in the Beginnings of the Spring, from a thick, fungous or spungy, and yellow Root, it sends up a great round, brownish Head, which by little and little discloses Leaves, successively opening; the Leaves when they first shoot, are very much contracted into folds and wrinkles; but afterwards, as they gradually extend and stretch, the Furrows into which they were crumpled, are smoothed, and they appear very large and of a roundish Shape, standing upon Footstalks of a dark-red Colour, about the Thickness of a Man's Thumb, and two Foot in length, when the Plant meets with a fertile Soil; they are two Foot in length, and of an equal Breadth, of a dark Green, when young of a lighter Green, thicker than those of the common great round-leaved Dock, of a

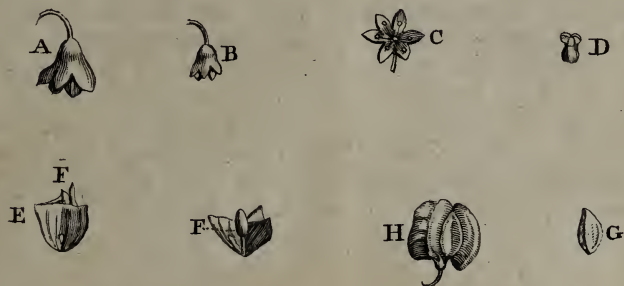
fowrish Taste, but more agreeable than that of the Wood or Garden-Sorrel; from among the Leaves there rises, but not every Year, a strong and thick Stalk, not so high as that of the Monks Rhubarb, covered with such like round Leaves, but smaller, which shoot from every Joint to the Top, even among the Flowers, which are of a white Colour, and divided into six Segments, with many little white Threads or *Stamina* within; they are succeeded by triangular Seeds of a brownish Colour: The Root in process of Time grows to a considerable Thickness, and spreads into various Branches, of a dark reddish Colour without; under the outward Bark there lies a thin Membrane or Skin that lines the internal Pulp or Substance, which peeled off, the Root appears naked, with many fleshy Veins winding and traversing it, of so fresh and lively a Colour, that the choicest Rhubarb brought to us from *China* and the *Indies* seems not to surpass it; if it is cut into slices, and these carefully dried by the Heat of a gentle Fire, so as not to touch one another, they retain their Colour, fresh as at first, and when chewed, give a yellow Tincture to the Spittle.

It is called *Rhabarbarum*, a Word importing a Root which grows among the barbarous Nations; for 'tis found near to the River *Rha*, known by the Name of *Volga* in *Moscow*.

It has been learnedly controverted by the Botanists, whether the Rhapontick of the Ancients, and the Rhubarb of the Moderns, is one and the same Plant; some affirming, and others denying that there is any Agreement: The Reasonings upon both sides, too tedious, and indeed not necessary, here to transcribe, may be seen at full length

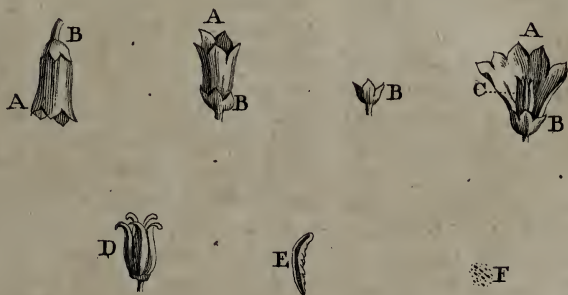
Rhabarbarum. *Rubarbe.*

Fig. 1^{te}.



Cotyledon. *Navel-wort.*

Fig. 2^a.



length in the Appendix to the second Tome of *J. Bauhinus's History of Plants*; the Description of the Rhapontic, given by *Dioscorides*, is as follows:

Rha or *Rheum*, called by the *Latins* Rhapontic, grows in those Countries that lie above the *Bosphorus*, from whence it is brought; the Root is black, like to that of the greater Centaury, but smaller, of a darker red Colour, fungous, somewhat light, and without scent; that is best which is not worm-eaten, that is clammy and astringent to the Taste, and that tinctures the Spittle with a Yellow, inclining to a Saffron Colour when chewed: Besides, *Dioscorides* ascribes no purgative Quality to it; the Rhubarb now in use is the Root of a *Chinese* Plant, accurately described by *Muntingius*, and which in the Opinion of a great many was entirely unknown to *Dioscorides* and *Galen*; it is a compact Body, heavy and dry, of a bitter Taste, a sharp and aromatic Smell, upon the Outside of a dark brownish Colour, within from a Brown inclining to a Yellow; and nearly approaching to the internal Colour of Nutmeg, when chewed dying the Spittle of a Saffron Colour; the Rhapontic, is not of a dense nor compact Substance, but rare and of a thin Texture, not heavy, but light; not dry and brittle, but tough; not bitter, but of a sharpish Taste; not scented, nor in colour resembling the modern Rhubarb: These Reasons induced *Matthiolum*, and many others, to conclude, the *Rhabarbarum* a Plant entirely different from the Rhapontic; yet notwithstanding this seeming disagreement, it is highly probable, as *Parkinson* justly insinuates, that the Roots which were commonly brought in the Times of *Dioscorides* and *Galen*, were the long Branches of the greater Roots of Rhubarb, dried, without separating the external Bark or Rind, which made them of a blackish Appearance, and not the great thick Roots now used; perhaps too they were adulterated, as *Galen* gives ground to believe, by being steeped or boiled in Water for some Time, to extract the strongest Juice, and then dried; this might render them of a blackish Colour and spongy, light and without smell, and strip them of their purgative Powers; from hence *Par-*

kinson concludes, That the Rhapontic was either a small kind of Rhubarb, or the bigger Branches of the great Roots of Rhubarb, the Colour and Faculties being so much alike.

The same Author declares himself of Opinion, That the modern Rhubarb, or the genuine Rhubarb of the Shops, is the Root of a great round-leaved exotic Dock: And *Ray*, who in his History affirmed the Rhapontic of the Ancients and the modern *Chinese* Rhubarb to be altogether different, in his Supplement declares himself of another Opinion, and that with *Herman* and others he believes it to be a great round-leaved exotic Dock, or *Thracian* Rhapontic; and not the Root of that Plant described by *Muntingius*, under the title of *Rhabarbarum Chinense longifolium*, &c. he adds, That he observed two Varieties of it, the one having its triangular Seed loose in the Husk, and the other having them inseparably joined thereto; we shall insist no longer upon this dispute, but leave the Decision to more accurate Botanists, and hasten to the more useful Part, the Powers and Virtues of this Root.

There are two sorts of it commonly sold, the one comes from the *Levant*, and is heavy, streaked and marbled with golden or reddish Veins, bitter and astringent to the Taste, of an aromatic Smell, a more lively Yellow, and if wetted and rubbed upon the Skin, it gives it a Saffron Colour; the other is brought from *Moscow*, it is heavier and of a more dark yellow Colour; the first is esteemed the best, and is endowed with nobler Virtues: *Garcias*, *Acosta*, and *Linschotanus* agree, That no other Country but *China* naturally produces the true Rhubarb, that from thence it is brought thro' *Tartary* to *Ormuz* and *Aleppo*, from thence to *Alexandria*, and hence to *Venice*; or by *Usbekin* into *Turky*, and from thence to *Venice*.

Rhubarb of the Ancients, or the Rhapontic of *Prosper Alpinus* purges moderately, the cathartic Power being not so strong as in the Modern, so that it must be given in a greater Quantity, in Powder to ʒii or ʒβ, but in Infusion to ʒi. It is esteemed more powerfully astringent, and therefore no contemptible Medicine in Loosenesses, and

and Dysenteries; it is likewise vulnerary and Anodyne.

The *Chinese* or modern Rhubarb, chymically analyzed, is found to abound with a volatile oily Salt, involved in a considerable Quantity of Earth; whence it is, that it produces no change as to colour upon the blue Paper; it purges gently, and is administered with Success in all Fluxes of the Belly, the yellow Jaundice, and Fevers occasioned from Worms; it may be given in Substance from ʒβ to ʒI; in Infusion from ʒI to ʒII or ʒIII. *Schroder* makes an extract of it with Endive, Succory or Agrimony Water, sharpened with some Drops of the Oil of Tartar *per Deliquium*; Dose from ʒI to ʒI: There is likewise a Syrup of Succory with Rhubarb: It is commonly corrected, but to little purpose, with the Saunders; Cinnamon or Fret Salt is better, or some Drops of the essential Oils, such as Aniseed, or the like, however it needs no Correctives, it being little or nothing bettered thereby, unless it be to render the viscous Humours adhering to the Intestines more fluid, and so fitter for Evacuation; when tossed 'tis said it loses all its purgative Faculties, and becomes wholly astringent; among the other admirable Virtues ascribed to this Medicine, this is commonly affirmed, That it is not only purgative, but at the same Time astringent: For the Satisfaction of the Curious we shall here subjoin the Experiences and Observations of *Mon. Bolduc*, upon this Root, communicated to the Academy of Sciences at *Paris*, which seem to contradict this received Opinion.

We know from experience, says he, that this Root is a most gentle and effectual Purger; but it is commonly affirmed, That it is at the same Time astringent; from whence it is concluded, That in purging it binds and fortifies, and that by certain Preparations it may be wholly stripp'd of its cathartic Power, and remain entirely astringent, as if in its natural State it were composed of two Parts, which may be easily separated and divided.

The purgative Faculty of this Root cannot be contested; but I think it will be hard to prove by clear Evidence and convincing Effects, that it strengthens and

binds. I know that when chewed, besides that agreeable bitter that offers it self to the Taste, and seems to point out its cathartic Virtue, a certain Sharpness, like to that which is observed in whatever we call astringent, strikes the Tongue, which has given Ground for this attribute of astringency: But to this Day it has never been demonstrated, that the Particles which cause that Sensation of Sharpness upon the Tongue, produce in the Ventricle and intestinal Duct an Impression sufficient to bind, and to make them enter into Contractions opposite to those which determined the Flux of the Humours downwards, as we find in the *Ipecacoana*, which manifestly purges and binds at the same Time; nor is it easy to perswade, That after having attempted to strip the Rhubarb of its purgative Force, there remains nothing but an astringent Quality.

I own that torrifed Rhubarb is almost in no Degree purgative, and that after having drawn the Tincture of this Root, the residue is not in the least Cathartic; but by all the repeated Experiences which I have made to illustrate and clear up this Matter, I could never find, after these two, or such like Preparations, any Grounds to believe the Rhubarb a certain Astringent.

It is certain that in all the Purgatives of which the Tinctures have been drawn by a proper *Menstruum*, besides that Substance of a Honey-like Consistence, called the Extract, we meet with a second earthy Substance, which is the *Feces* or Lees, that serves to curb the Activity of the other, while they remain united, and which is not at all purgative; we must then upon this bottom own the Residue or *Feces* of all the Purgatives to be astringent, which has not hitherto been affirmed; because a Medicine must sensibly bind, and be employed with success in fluxes, before that it can be esteemed an Astringent.

I shall therefore now report such Observations as I lately made upon the Rhubarb, by the different Tinctures or Extractions, and by Distillation.

I infused two Ounces of choice Rhubarb cut into slices, into twenty-four Ounces of pure River-Water, for the Space of twenty-

twenty-four Hours, upon hot Ashes, maintaining always an equal Degree of Heat ; I afterwards drained off the Infusion, which I gently strained ; the Tincture, when it was fully settled, was of a beautiful deep Yellow, somewhat inclining to a Red, and of a supportable Bitterness, with a moderate Sharpness or Astringency : I did not boil this Infusion, being fully persuaded by repeated Experience, that purgative Medicines, especially those that are of the vegetable Kingdom, lose much of their Force and Virtue by too great a Degree of Heat or Ebullition : Having evaporated this Tincture to the Consistence of an Extract, there remained four Drachms and twelve Grains.

A Drachm of the Tincture of Rhubarb, prepared as I have already specified, purges more powerfully than two Drachms of the Extract from the same Tincture ; yea, twenty-four Grains of Rhubarb in Substance purges more effectually than a Drachm of the Extract ; the same has been observed of Senna and several other Purgatives of that Nature ; from whence we may conclude, That 'tis often better to use Medicines, such as Nature has produced them, without resolving and disuniting their constituent Parts and Principles, unless a Physician has particular Reasons for acting otherwise.

I give it too as a sure Remark, that the Infusions of the vegetable Purgatives work more effectually than their Decoctions ; from whence it appears, That the most active Principles of those mixed Bodies are dissipated by the Heat ; we find too, That the most Part of those Vegetables, if kept too long, especially in powder, lose much of their Force and Energy.

But to resume the Thread of our Operation, having dried the remaining Part of the Rhubarb from whence I had drawn that first Tincture and Extract, I found it to weigh one Ounce, three Drachms and some Grains, and I drew a Tincture from it by simple Infusion : This second Tincture was not of so deep a Yellow, less bitter and less sharp to the Taste, and in fine less scented than the preceding, which it very much resembled ; but I have observed upon several Occasions, that those second

Tinctures were more weak in their Operation than the first, tho' given to a greater Dose, nor did I ever remark any Astringency in them.

After having evaporated this second Tincture sufficiently separated from its *Feces*, I had three Drachms of a pretty solid Extract ; 'tis true, this Extract was purgative, but remarkably in a lesser Degree than that of the first Tincture.

The Residue of this second Infusion being dried, weighed but seven Drachms, it was almost insipid, and had but a very little Sharpness or Astringency.

I repeated, however, a third Infusion by Ebullition ; the Decoction was of a dark blackish Colour, without Smell, little or no Taste, and almost no Astringency.

I never observed that either this third Tincture or its Extract was cathartic or astringent, altho' taken to a very large Quantity : I obtained from this third Infusion or Decoction a Drachm of hard Extract, but of no proper Consistence, and very earthy ; this last Remainder, when well dried, wanted some Grains of six Drachms, was without all Taste and Smell, and gave no tincture to the Spirit of Wine.

I have often administered to Patients that residuous Substance of the Rhubarb, but never perceived it possessed of any astringent Power from any sensible Effect.

By these three Infusions the two Ounces of Rhubarb yielded an Ounce and twelve Grains of Extract.

This is all I observed of the Rhubarb examined by a watry Dissolvent, I shall now set down what I found from a sulphurous Dissolvent.

I drew by a sufficient Quantity of the rectified Spirit of Wine the Tincture of one Ounce of Rhubarb, in proper Vessels by a digestive Fire, slow at the Beginning, but somewhat stronger towards the end of the Operation, for the Space of twenty-four Hours : The Tincture was of a beautiful citron Colour, very much differing from that which was drawn with Water, not only as to the Colour, but likewise as to the Taste ; for this Tincture, drawn with the Spirit of Wine, has but a little Bitterness, and almost without any Degree of

Sharpness or Stipticity; which may incline us to believe, that the purgative Faculty of this Root depends more upon its Salts than its Sulphurs, which must be in it but in an inconsiderable Quantity, seeing the Tincture was but little impregnated; yea, I am apt to suspect that this small Tincture which the Spirit of Wine drew, was owing to some remains of Phlegm, which the Spirit of Wine imbibes, however rectified it appears to be.

Having drawn off the Spirit from the Tincture by Distillation, the remaining Extract weighed a Drachm and a half; it was of a fine Colour; of a good Smell, and left the true Taste of Rhubarb upon the Tongue; half a Drachm of this Extract purges gently.

This Tincture wherewith the Spirit of Wine is charged, does not turn of a milky Colour by the Mixture of Water, which clearly shows that it contains but few, or no resinous Particles.

The residuous Part thro' which the Spirit of Wine had passed, when thoroughly dried, weighed six Drachms, and remained of as beautiful a Colour; almost as bitter and stiptic to the Taste as the Rhubarb it self before the Operation.

I have often administered half a Drachm of this residuous Substance, which purged as effectually as an equal Dose of the Rhubarb; but it had not always the same Effect, tho' it never failed to purge.

With Water I took the Tincture and Extract of this remaining Part, they are both purgative in the same Degree with the first that I named.

In the last Tinctures of this Residue I observed so little virtue that I seldom or never used them.

I shall add, That by the most exact Examination of all these Tinctures and Extracts, the first Infusion and Extract contained what was most purgative and astringent in the Rhubarb, seeing both of them are more bitter, and more sharp and stiptic than the others.

The Distillation of Rhubarb by the Retort after the ordinary Manner, gave me but small Satisfaction, as I still found it in all the Purgatives thus distilled: From Rhubarb thus distilled, I drew by the first Degree of Heat a Phlegm which had some smell of the Root, some small Sharpness and Taste; the other Parts which followed had Degrees of Acidity: The last yielded no Oil; for mixed Substances which contain but few resinous Particles, give but a small Quantity of Oil by Distillation; the Salt extracted from the *Caput Mortuum*, was but little, and fermented with acids.

By all these Experiences it appears to me, That we are equally uncertain and ignorant of any astringent Quality in the Rhubarb, as we are sure of its purgative Power; the first is only bottomed upon that small Degree of Sharpness and Stipticity observed in the Taste; toasted Rhubarb contains nothing but an earthy drossy Substance, the certain Properties whereof lie yet concealed; so that if in a Flux of the Belly the Patient feels himself more relieved after the use of Rhubarb, than of any other purgative Medicine, it is owing to this; that Rhubarb for the most Part occasions neither gripings nor nauseating, and that in disengaging the Vessels from the Humours which obstruct and load them, it sets the Springs at liberty to resume their natural Tension and Direction. *Memoires de l'Academie de l'Ann 1710.*

S E C T. V.

Of Herbs, with a monopetalous bell-shaped Flower, whose Pointal changes into a Fruit composed of several little Sheaths or Husks.

TABLE IX. Fig. 2.

G E N U S I.

Cotyledon, Navel-wort,

IS a Plant with a Flower of one entire Leaf A, of the long, hollow, or tubular Bell-shape, and cut into various Segments: The Pointal C, which pierces the bottom Part of the Flower, rises from the Flower-Cup B, and is afterwards changed into a Fruit D, composed of several little Husks, collected into a Button or Head, opening from the Base to the Top upwards, and enclosing a Seed F, for the most Part of a very small and diminutive Size.

Its Species are,

The greater Navel-wort, *Cotyledon major* of C. B. Pin. 285. This is the true Navel-wort, with a tuberous or knobby Root, *Cotyledon vera*, *radice tuberosa* of F. B. 3. 683. and the Cotyledon, *Umbilicus Veneris*, *Cotyledon*, or *Venus-Navel*, of Clusius. Hist. LXIII.

From a tuberous Root set with several small Fibres, it sends up some Footstalks; a Hand-breadth in length, which are fixed in the Centre of a thick, round Leaf, hollow upon the upper side like a Spoon or Saucer, full of Juice, viscous and watry to the Taste, and of a pale green Colour; from among these Leaves two or three Stalks shoot, half a Foot in height, sometimes single and undivided, sometimes branched, and deck'd from top to bottom with many little pendulous Flowers, of a grassy Colour and coneave, like to those of the Poly-

gonatum or Salomon's Seal, but smaller; the Seed is very small, and like to that of Purslain; the Leaves which are at the Bottom of the Stalk, two or three at most in Number, are not, like the others, round and circular, but somewhat long, nor is the Footstalk fixed in the Centre, but at the Side of the Leaf: It is found in many Parts of England, especially in the West, upon stone and mud Walls, upon Rocks also and stony Grounds, at the Bottom of old Trees, and sometimes upon the rotten and decayed Trunks; it usually Flowers about the Beginning of May, and the Seed ripens quickly after, so that about the end of May the Leaves and Stalks are withered and gone until September, when they spring again, and so continue all Winter; this is probably the *κωτολεδών* of Dioscorides.

Great Portugal Navel-wort, *Cotyledon major Lusitanica*: This is the greatest Portugal Navel-wort — *Maximum Lusitanicum* in the *Viridar. Lusitanic*.

This Sort has paler green Leaves, as Parkinson informs us.

Navel-wort, with a long, creeping tuberous Root, *Cotyledon, radice tuberosa, longâ, repente*. Morisf. H. R. Blef. This is the Navel-wort, with a yellow Flower, and a creeping tuberous Root, *flore luteo, radice repente*, in Dodart's *Memoirs. A. R. Pär. 73*.

The Leaves of this Sort are jagged, and the Intervals between the Jags somewhat toothed or dented, they are green all the Winter, wither and decay in May; the Stalk is round, firm, and of a reddish Colour, set with some few smaller Leaves, and divided into three or four Branches, which are loaded with Flowers of a yellow Colour, cut into five Segments, supported by a greenish Cup, and stand in Spikes; from

from its Middle rise five little narrow and Strait Husks, of a greenish Colour, filled with very small red Seeds; they are surrounded by five citron-coloured Threads or Stamina, with their Chives; it flowers in June.

Navel-wort, of a middle Size, and a yellow Flower, *Cotyledon flore luteo, media*. *H. Lugd. Bat.*

Shrubby African Navel-wort, with round Leaves, edged with a purple Rim, — *Africana frutescens, foliis orbiculatis, limbo purpureo cinctis*: This is the *Sedum Africanum, frutescens, incanum, orbiculatis foliis*, or the shrubby African House-Leek, with round Leaves and hoary, of Herman in his Catalogue. *H. Lugd. Bat.*

Round-leaved African Navel-wort, with a most beautiful Flower — *Africana teretifolia, flore pulcherrimo*: This is the *Sedum Africanum teretifolium, flore Hemerocallidis* & *Codice Comptoniano*, Round-leaved African House-Leek, with a Flower like to that of the *Hemerocallis*. *Pluknet. Phytog. Tab. 223. Fig. 1.*

African Navel-wort, with longish Leaves, Flowers standing in knots or tufts, and a fibrous Root, *Cotyledon Africana, foliis oblongis, floribus umbellatis, fibrosa radice*: This is the *Sedum Africanum, umbellatum, album, foliis Gentiana cruciata angustioribus*. *Prodr. Parad. Bat.*

Sea Navel-wort, with a House Leek Leaf, an incarnate Flower, and a fibrous Root — *Mariuima, sedii folio, flore carneo, fibrosa radice*.

Great Navel-wort of Candy, with a white Flower; it is a Variety of the first and common Sort.

Great Navel-wort of Candy, with a purple Flower; it is a Variety of the first and common Sort.

Navel-wort of Candy, with a tuberous Root, and a small yellow Flower.

The following Plants are to be excluded from this Genus; *Cotyledon media, foliis subrotundis*, *C. B. Pin. 285*. It is a Species of the Genus or *Avens*. *Cotyledon media, foliis oblongis serratis*, *C. B. Pin. 285*. It is a Species of the Saxifrage: *Cotyledon media, subhirsuta, floribus punctatis*, *C. B. Pin. 285*. it seems to be a Species of the Saxifrage: *Cotyledon minor, foliis subrotundis, serratis*, *C. B. Prodrum.*

133. 'tis a Species of the Saxifrage: *Cotyledon stellata*, *C. B. Pin. 285*. 'tis a Species of the House-Leek.

The Roots of all the Species of the *Cotyledon* or Navel-wort are for the most Part knobby, the Leaves thick and shaped like a Saucer, whence it derived the Name of *Cotyledon*, for the Greek word *κοτύλη* signifies a Cavity, or whatever is hollow; yet these don't constitute the proper Characteristick of this Genus, for among the enumerated Species, some there are which have flat Leaves, and others which have a fibrous Root.

'Tis the first Species which is of common Use; the following Virtues are ascribed to it by *Dioscorides*; the Juice mixed with Wine and drop'd into, or the Part being therewith anointed, cures a *Phimosis*, *φίμωσις τὴν ἐν ἀνδρῶσι, συνεκτα genitalia nudat*, reduces the Prepuce: It is useful in all Inflammations, *St. Anthony's Fire*, the King's Evil, and to remove Chilblains and kided Heels, being externally applied; it cools the Heat of the Stomach: The Leaves eaten together with the Root are said to break the Stone, and to be diuretic; they are given with Honey to such as are Hydropic: The Herb is used in Philtres.

Galen says, That it is of mixed Qualities, moist and cold, somewhat astringent, and gently bitter; that it very much cools, cleanses, repels, and discuteth, and consequently is highly beneficial in *Erysipelas*, and Erysipelatous Tumours and Inflammations, and allays the burning and preternatural Heat of the Stomach.

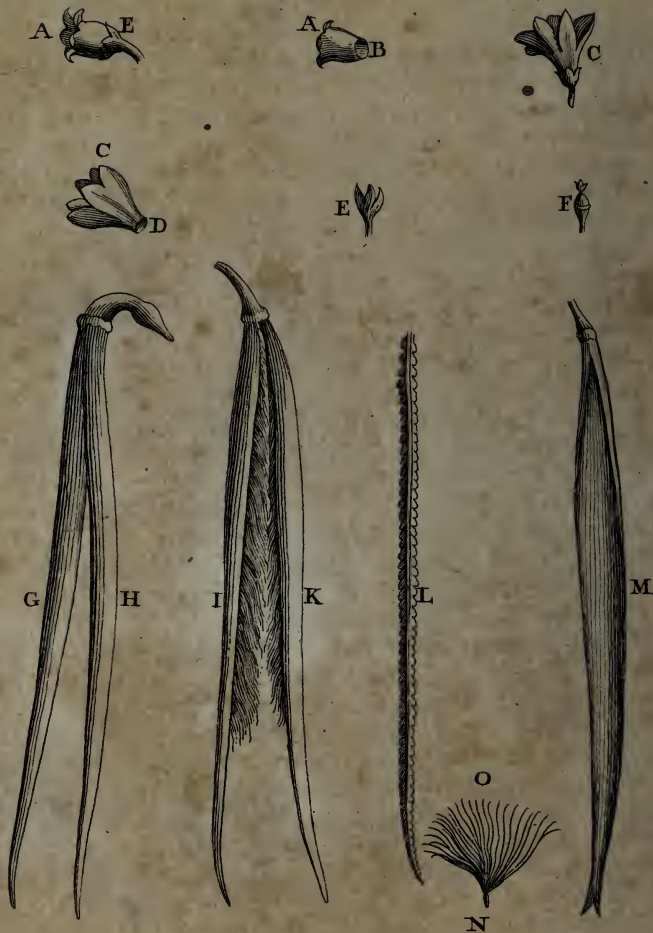
It agrees in virtues with the House Leek, and therefore is detesive, astringent, and repercussive, and may be employed after the same Manner, and in the same Cases; a Gargarism of the distilled Water of this Plant may be used with Success in a Squinancy, applying externally its Leaves bruised together with River Crabs; the Leaves of this Plant are likewise applied to remove Corns and gouty Nodes; and its Juice with that of River Crabs may be usefully administered by way of Injection in a Descent of the Womb, and to cleanse cavernous or fistulous Ulcers; it is esteemed singularly good against the Piles; if they are bathed with the Juice thereof, or if

Apocynum Dogs Bane.





Apocynum. *Dogs Bane.*



if 'tis made into an Ointment with other convenient Ingredients, and so used, it tempers the Heat, and allays and removes the Pain.

TABLE X, XI.

GENUS II.

Apocynum, Dogs-Bane,

IS the Genus of a Plant with a monopetalous Bell-shaped Flower, but not altogether the same in the several Species: So that it requires a separate Description.

1. In some Species the Flower A C is of the Bell-shape, and cut into several Segments; from its Flower-Cup E rises the Pointal F, which is fixed like a Nail in the back Part B D of the Flower, and is afterwards changed into a Fruit composed for the most Part of two Husks or Sheaths G H, opening from the Base to the Top I K M, and enclosing many Seeds N, which are pappous or covered with a fine Down, and affixed to a rough Placenta L.

2. In other Species the Flower is likewise of the Bell-shape I, but inverted and divided into several Segments; and its Centre is filled by a little Head or Button of an elegant Texture 2, composed of five little horned Leaves circularly disposed; the Pointal 4, which is fixed like a Nail in the lowermost Part of the Button 3, rises from the Flower-Cup 5, and is afterwards transformed into a Fruit 6, which for the most Part consists of two Husks, opening from the Base to the Top 7, 8, and enclosing several Seeds lying in such an order as to imitate the Disposition of Scales or Tiles 11, covered with a fine Down 12, and adhering to a leafy Placenta, 9, 10. To these Characteristicks we must add, That all the Species of the *Apocynum* or Dogs-Bane abound with a milky Juice.

Its Species are,

Broad-leaved *Egyptian* Dogs-Bane, upright and hoary, with Saffron-coloured Flowers, *Apocynum erectum, incanum, latifolium, Egyptiacum, floribus croceis. Par. Bat.* This is the *Apocynum Egyptiacum, la-*

efcens, siliqua Asclepiadis, or Egyptian Dogs-Bane, full of a milky Juice, with a Husk like to that of the Swallow-wort of C. B. Pin. 303. The *Beidelsar* of *Alpinus* or *Syrian* Dogs-Bane of J. B. 2. 136. and the *Beidelsar* of *Prosper Alpinus. Egypt. 36.*

Upright Dogs-Bane, broad-leaved, and hoary, of *Malabar*, with Flowers from a white inclining to an agreeable Purple, *Apocynum erectum, incanum, latifolium, Malabaricum, floribus ex albo suave-purpurascens, Par. Bat.* This is the broad-leaved *Egyptian* Dogs-Bane, upright, and hoary, with large Flowers of a pale violet Colour, *Apocynum latifolium Egyptiacum, incanum, erectum, floribus magnis, pallide violaceis, in the Prodrom. Par. Bat.* and the *Erica* in the *Hortus Malabaricus. Part. 2. 53.*

Upright *American* Dogs-Bane, broad-leaved, and hoary, with Flowers from an incarnate inclining to an agreeable violet Colour, *Apocynum erectum, incanum, latifolium, Americanum, floribus ex incarnato suave-violaceis, Parad. Bat.* This is the great, broad-leaved, upright *Indian* Dogs-Bane, with a large concave Flower, of an agreeable purplish Colour, *Apocynum erectum, majus, latifolium, Indicum, flore concavo, amplo, carneo, suave-purpurascens, of Breynius. Prodrom. 2.*

Upright *Syrian* Dogs-Bane, broad-leaved and hoary, with small Flowers of an obsolete purple Colour. *Par. Bat.* This is the great upright *Syrian* Dogs-Bane of *Cornutus. 90.* the *Syrian* Dogs-Bane of *Clusius. Hist. LXXXVII.* and the *Beid-el-sar* of *Veslingius, in his Annotations upon Prosper Alpinus, 208.*

The Root is white and creeping, with some few annexed Fibres, and about the thickness of a Man's Thumb; at the end of *May* it sends up Stalks, round, tough, and not easily broken, about two or three Cubits high, and somewhat branched towards the Top; the Leaves are three Inches broad, and six in length, from a broad Base tapering into a long round conical Figure; they grow by couples upon the Stalks and Branches, without any intervening Foot-stalks, are of a pale green Colour, thick and firm, and of a strong unpleasant Smell, with some few thick Nerves, issuing from the

the middle Rib, which are more conspicuous upon the back Part of the Leaf; from its earliest Growth it is whitened with a fine hoary Down, and from its Stalks, and little Nerves distills a sharp and bitter milky Juice; towards the Top of the Stalk shoot thick Footstalks, each supporting a large tuft of Flowers, fifty, sixty, sometimes a hundred in Number, closely compacted, for the most Part pendulous towards the Earth, upon long and slender Footstalks; every Flower is first composed of five little Leaves of a greenish Colour, and bending backwards, which serve for the Cup; then it hath five other Leaves four times larger than the former, bending backwards in the same Manner, and covering the five first of the Cup, these on the under side are Green, and upon the upper side of a pale Colour with some mixture of Red; then there appear within five little Grains (if they may be so termed) upon their Outside like to the Grains of Millet, but hollow within, and of an agreeable red Colour, with a little Filament or Thread issuing from each of them, and encompassing a little small Head like a Button, greenish underneath, and whitish above; the Flowers, tho' so numerous, are succeeded but by one or two Cods at most, which are about the length of a Finger, and within their membranous Husk contain many broad flat Seeds, wrapped up in a fine silken Down; the Cods are not only full of Silk, but every Nerve wherewith the Leaves are ribbed, are most pure Silk, as is the Peeling of the Stems: Those barbarous Nations among whom this Plant grows in Plenty, might find from it coverings to their Nakedness, knew they but the Art how to manufacture it: Johnson says the Stalks of this Plant are square, a Finger thick and hollow, and that the Leaves are of a dark-green Colour on their upper Sides, and more whitish below. *Ger. Emaculat.*

The greater upright Syrian Dogs-Bane, with a green Stalk, and a whitish Flower, *Apocynum majus, Syriacum, rectum, caule viridi, flore exalbido. H. R. Par.*

Narrow-leaved, upright Dogs-Bane of Canada, *Par. Bat.* This is the American Dogs-Bane, with a Swallow-wort Leaf,

and red Flowers so disposed as to imitate the Shape of a Parasol, *Apocynum Americanum, folio Asclepiadis, flore rubro, umbellato* of Guy de la Brosse; and the lesser upright Dogs-Bane of Canada, *Apocynum minus, rectum, Canadense* of Cornutus 93.

Broad-leaved, upright Dogs-Bane of Canada, *Apocynum erectum, Canadense, latifolium. Par. Bat.*

Upright Dogs-Bane of Canada, of a more dwarfish Growth, and having a very narrow Leaf, *Apocynum erectum, Canadense, humilius, angustissimo folio. H. Lugd. Bat.*

Virginian Dogs-Bane, with a grassy Flower, and a long Husk or Cod, *Apocynum Virginianum, flore herbaceo, siliqua longissima. Moris. H. Reg. Blef.*

Indian Dogs-Bane, with the Leaves of the greater Tutlan, and a Flower-like to that of the Lilly-Convally, with a Flower of an agreeable Red, *Apocynum Indicum, foliis Androsani majoris, flore Lilii Convallium suave-rubentis. H. R. Par.* This is the American Dogs-Bane, with the Leaves of the greater Tutlan, *Apocynum Americanum, foliis Androsani majoris. A. R. Par. 59.*

Dogs-Bane with a roundish Leaf, *Apocynum folio subrotundo, C. B. Pin. 302.* This is the *Apocynum folio rotundiore, flore ex albopallasciente*, Dogs-Bane with a rounder Leaf, and a Flower of a pale white Colour, of *J. B. 2. 134.* and the first broad-leaved Dogs-Bane of *Clusius. Hist. 124.*

Venice Dogs-Bane growing upon the Sea-Coasts, with a Willow-Leaf, and a purple Flower, *Apocynum maritimum, Venetum, Salicis folio, flore purpureo*: This is the Sea-Coast Tithymal, with purplish Flowers, *Tithymalus maritimus, purpurascens floribus* of *C. B. Pin. 291.* The *Alypum quibusdam sive Esula rara, flore purpureo*, the *Alypum* of some Botanists, or a rare Spurge, with purple Flowers, according to *J. B. 3. 676.* The *Esula rara* è *Lio Venetorum Insula*, a rare Spurge from Lio an Island belonging to the Venetians, of *Lobel. Icon. 372.* and the *Esula rara nostra, floribus purpurascens* of *Donati. 39.*

Venice Dogs-Bane, growing upon the Sea-Coast, with a Willow-Leaf, and a white Flower: This is the *Tithymalus maritimus sive Esula rara*, è *Lio Venetorum Insula, flore albo*, Sea Tithymal, or a rare Sort of

of Spurge from *Lio*, an Island belonging to the *Venetians*, in the Catalogue of the Plants in the Royal Garden at *Paris*. *H. R. Par.*

New-England Dogs-Bane, somewhat rough and hairy, with a tuberosus Root, and Orange-coloured Flowers, *Apocynum Nova Anglia subhirsutum, radice tuberosa, floribus Aurantiis*, in the Appendix to the Catalogue of Plants in the University Garden at *Leyden*: This is the *Apocynum erectum, minus, latifolium, Americanum, flore umbellato, aurantio, petalis reflexis, radice tuberosa*, or the lesser upright broad-leaved, *American Dogs-Bane*, with flowers disposed in Umbels, of an Orange-colour, having their little seeming Petala or Leaves bent backwards, and a knobby Root. *Brey. Prodrom. 2.*

Dogs-Bane of Curacao, with a fibrous Root, Orange-coloured Flowers, and narrow Leaves, like those of the *Chamenerion* or Rose-bay Willow-Herb, *Apocynum Curassavicum, fibrosa radice, floribus Aurantiis, Chamenerii foliis angustioribus. Prodr. Par. Bat. Pluknet. Phytog. Tab. 76. Fig. 6.* This is the *Apocynum Americanum Chamenerii foliis. Par. Bat.*

Dogs-Bane of Curacao, with a fibrous Root, Orange-coloured Flower, and broader Leaves, like those of the Rose-bay Willow-Herb, *Apocynum Curassavicum, fibrosa radice, floribus Aurantiis, Chamenerii foliis latioribus. Prod. Par. Bat.*

Upright, *African Dogs-Bane*, with a Fruit covered with a rough Nap, and a Willow-Leaf, broad and smooth, *Apocynum erectum, Africanum, villosa fructu, salicis folio lato, glabro. Par. Bat.*

Upright, *African Dogs-Bane*, with a Fruit rough and napped, and a Willow-Leaf broad, and somewhat hairy, — *erectum, Africanum, villosa fructu, salicis folio lato, subhirsuto. Par. Bat.*

Upright, *African Dogs-Bane*, with a Fruit covered with a rough Nap, and a Willow-Leaf smooth, and narrow, — *erectum, Africanum, villosa fructu, salicis folio glabro, angusto. Par. Bat.*

Upright, *African Dogs-Bane*, somewhat hairy, with Leaves elegantly undulated or waved round the Edges, — *Erectum,*

Africanum, subhirsutum, foliis undulatis. Par. Bat.

Climbing Dogs-Bane, with Periwinkle Leaves, green, and with a nappy Fruit, *Apocynum scandens, vinca pervinca foliis, viride, fructu villosa. Par. Bat.*

Climbing, *African Dogs-Bane*, with Periwinkle Leaves, and somewhat hoary, *Apocynum scandens, Africanum, vinca pervinca foliis, subincanum. Par. Bat.* This is the rough, climbing, *African Dogs-Bane, Apocynum scandens, Africanum, hirsutum*, in the *Prodrom. Par. Bat.*

Climbing, *African Dogs-Bane*, with a Root like to that of the Asphodel, and a very narrow Leaf, of Oldenland, *Apocynum scandens, Africanum, Asphodeli radice, angustissimo folio. Oldenlandii. Par. Bat.*

American Dogs-Bane with the Chast-tree Leaf, *Apocynum Americanum viticis folio.*

Climbing *American Dogs-Bane*, with a large downy Flower, of a yellow Colour, and very narrow Husks or Seed-Cods, *Apocynum Americanum, scandens, amplo flore villosa, luteo, siliquis angustissimis. Plumier.*

American Dogs-Bane, with long Leaves like those of the Almond-Tree, *Apocynum Americanum, foliis Amygdali longioribus. Plumier.*

Climbing, *American Dogs-Bane*, with Almond-Tree Leaves, *Apocynum Americanum, scandens, foliis Amygdali, siliquis Emeri. Plumier.*

Apocynum Americanum, scandens, siliquarum extremâ parte vestibus harente. Plumier.

Climbing, *American Dogs-Bane*, with the Citron-Tree Leaves, and spotted Husks, *Apocynum Americanum, scandens, foliis Citri, siliquis maculatis. Plumier.*

Climbing, *American Dogs-Bane*, with Laurel Leaves, and white Flowers, standing in Umbels, *Apocynum, Americanum, scandens, foliis lauri, flore albo, umbellato. Plumier.*

Tree Dogs-Bane, of the Canary Islands, with the outward Form and Appearance of the Dutch Myrtle, *Apocynum Arboreum, Canariense, Aleagni facie*: This the *Apocynum arboreum ad Aleagni faciem accedens, Canariense, siliquis binis Nerii æmulis (Cornicar Insulantis vulgo) apicibus recurvis. Pluk. Phytog. Tab. 260. Fig. 3.*

Shrubby, *Spanish Dogs-Bane*, with a Toad-flax Leaf, *Apocynum Hispanicum*, frutescens, *linaria folio*.

Bithynian Dogs-Bane, with a roundish Leaf, and climbing to the Height of the tallest Trees, *Apocynum Bithynicum*, arbores altissimas scandens, folio subrotundo. The *Periploca latifolia* of Wheeler. *Itin*.

Dogs-Bane with a roundish Leaf, discoloured with a green and yellow intermixed, *Apocynum folio subrotundo, ex viridi & flavescente variegato*.

It was called *Apocynum ἀπὸ τοῦ κυνὸς*, the Dogs-Plant, so the Composition imports, because its Leaves, as *Dioscorides* says, baked with Flower into Bread and given to Dogs, proves to them an infallible Poison.

This Plant has no medicinal Virtues: Both *Galen* and *Dioscorides* affirm, that it is poisonous internally used; outwardly applied it serves to discuss Tumours.

TABLE XII. Fig. 1.

GENUS III.

Periploca,

IS the Genus of a Plant, with a monopetalous Flower A, that has its Brim much more expanded than that of the Dogs-Bane, so that it approaches rather to the Shape and Figure of a Wheel: The Pointal C, which is fixed like a Nail in the back Part of the Flower B, rises from the Flower-Cup C, and is afterwards changed into a Fruit so nearly resembling that of the Dogs-Bane, that these two Genus's are not usually distinguished by Botanists.

Its Species are,

Periploca, with oblong Leaves, — *Folii oblongis*. This is the *Apocynum folio oblongo*, Dogs-Bane with a longish Leaf, of *C. B. Pin.* 303. The *Apocynum, sive Periploca scandens, folio oblongo, flore purpurante*, climbing Dogs-Bane or *Periploca*, with an oblong Leaf, and a purplish Flower, of *J. B. 2.* 133. and the *Periploca altera*, or second *Periploca*, of *Dodonæus. Pempt.* 408.

Periploca with narrow, oblong Leaves, — *Folii oblongis, angustioribus*; the *Secamone* of *Prosper Alpinus. Egypt.*

Periploca of *Montpelier*, with rounder Leaves, — *Monspeliaca, foliis rotundioribus*. This is the *Scammonia Monspeliaca foliis rotundioribus*, *Montpelier Scammony* with round Leaves of *C. B. Pin.* 294. The *Scammonia Monspeliaca flore parvo, Montpelier Scammony*, with a small Flower of *J. B. 2.* 136. The *Apocynum III. latifolium*, *Scammonia valentina* of *Clusius. Hist.* 126. and the *Scammonia maritima Monspeliaca*, Sea-Coast Scammony of *Montpelier*, of *Richier. Onomat.*

Periploca of *Montpelier*, with sharper pointed Leaves, — *Monspeliaca foliis acutioribus*: This is the *Scammonia Monspeliaca affinis, foliis acutioribus* of *C. B. Pin.* 294. The *Apocynum latifolium Amplexicaule*, broad-leaved, climbing Dogs-Bane of *J. B. 2.* 135. and the third broad-leaved Dogs-Bane of *Clusius. Hist.* 125.

American Periploca, bearing a prickly Fruit, *Periploca Americana, fructu mollior echinato*. This is the *Ibati* of the *Brazilians*, according to *Marcgrave. Edit.* 1648. 20.

American Periploca, with broad Leaves, and a long hard Husk or Pod, smooth and swollen, *Periploca Americana, latifolia, siliqua dura, oblonga, tumida & glabra*: This is the *Apocynum majus, scandens, siliqua oblonga, tumida & glabra*, the great climbing Dogs-Bane, with an oblong Seed-Pod, smooth and swollen, of *Plumier. XCV.*

Climbing, *American Periploca*, with a very narrow Willow-Leaf, and a white Flower, *Periploca Americana, scandens, salicis folio angustissimo, flore albo. Plumier.*

American Periploca, having its Branches spread upon the Ground, and a Toad-flax Leaf, *Periploca Americana, humi se spargens, linaria folio. Plumier.*

Periploca Americana, repens, umbellata, foliis Citri, flore coccineo. Plumier.

Climbing, *American Periploca*, with a Penny-wort Leaf, and a white Flower, *Periploca Americana, scandens, nummularia folio, flore albo. Plumier.*

Climbing, *American Periploca*, with a Citron-Tree Leaf, and the largest Fruit, *Periploca Americana, scandens, folio Citri, fructu maximo. Plumier.*

Climb-

Periploca

Fig. 1.

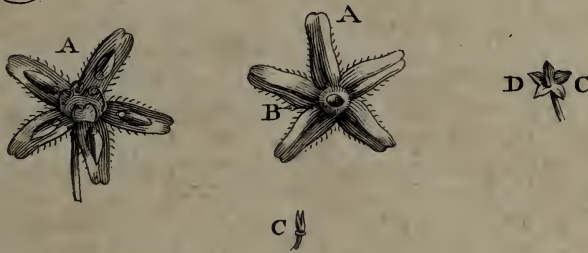
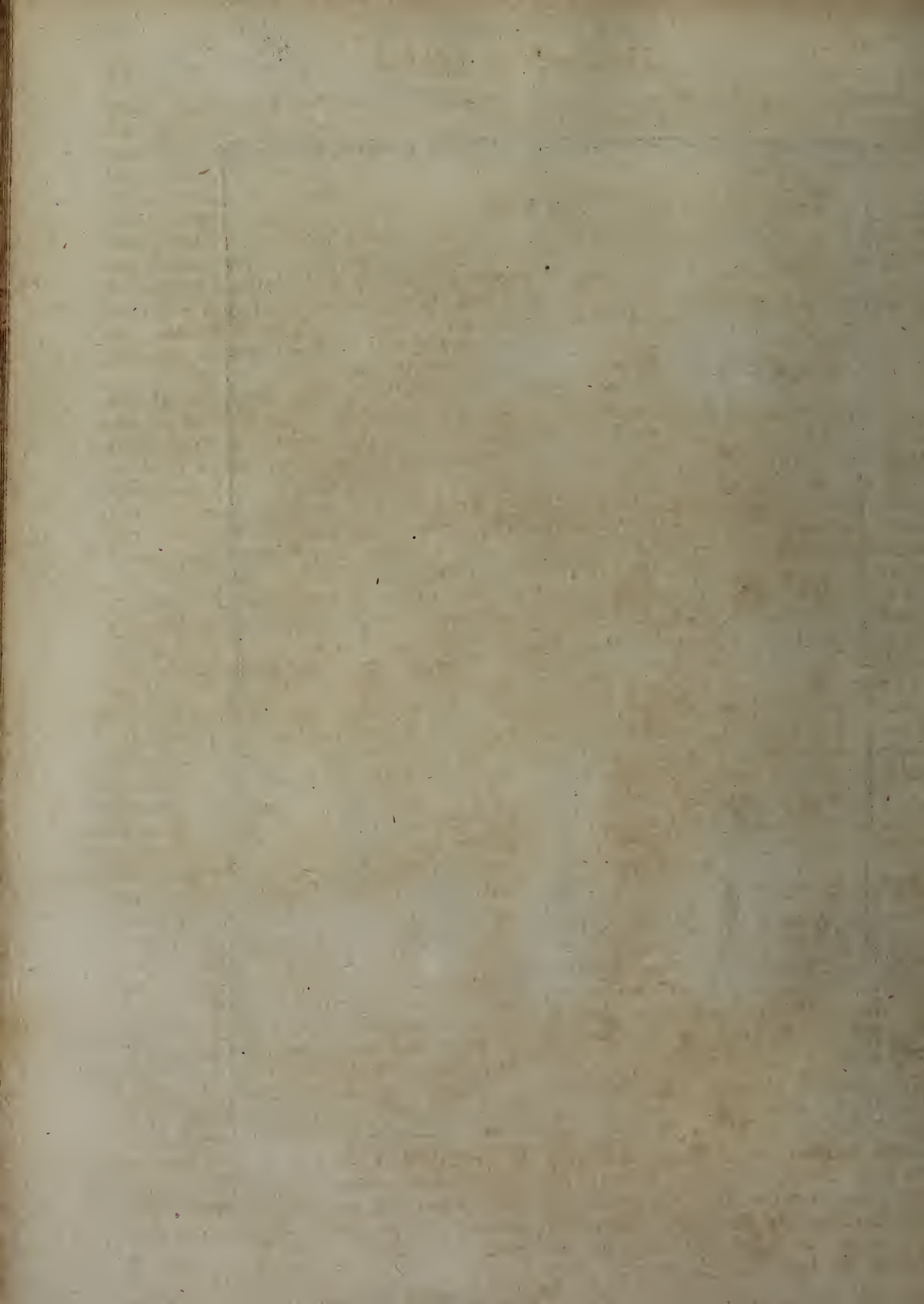


Fig. 2. Asclepias. Swallow-wort.





Climbing, *American Periploca*, with a Bindweed-Leaf, and a winged Fruit, *Periploca Americana*, *scandens*, *Convolvuli folio*, *fructu alato*. *Plumier*.

It is called *Periploca* from the two Greek words *περί* and *πλοκή* which import a Plant that wreaths and winds it self round every adjoining [Prop.

TABLE XII. Fig. 2.

GENUS IV.

Asclepias, Swallow-wort,

IS a Plant with a monopetalous Flower A, in the iShape of a Bell, having its Brim spread and expanded, and cut into several Segments: The Pointal E, which is fixed like a Nail in the back Part of the Flower B, (to which a little Head or But-ton C, divided into five Parts, corresponds) rises from the Flower-Cup D, and is after-wards changed into a Fruit composed for the most Part of two membranous Husks FF, opening from the Base to the Top K, enclosing many Seeds H, which are covered with a fine Down K, and fixed to the Placenta or nutritive Membrane I, like as Scales are disposed upon the Skins of Fishes G. The Swallow-wort contains no milky Juice, and herein it differs from the Dogs-Bane and *Periploca*.

Its Species are,

Swallow-wort with a white Flower, *Asclepias flore albo* of C. B. Pin. 303. This is the *Asclepias*, five *Vincetoxicum multis floribus albicanibus*, Swallow-wort or *Vincetoxicum*, with many whitish Flowers of J. B. 2. 138. and the *Vincetoxicum* of *Dodonæus*. *Pempt.* 407.

The Root is composed of many long white Fibres, of an unpleasant and nau-seous Taste; it sends up several tough Stalks, which rise to the Height of two or three Foot, hairy, and full of Joints: At every Joint stand two Leaves in opposition upon short upright Footstalks, somewhat hairy about the Edges, in shape like to those of the Ivy, but longer and more

wrinkled; from their Angles shoot Foot-stalks, which support the Flowers, each whereof, however, have little proper Foot-stalks; they are of a white Colour, and cut into five Segments, the Chives are of the same Colour, and the Pointal green; they are succeeded by Pods an Inch and a half in length, sometimes longer, which en-close a brownish Seed wrapped up within a fine silken Down: It is found in several Parts of *France*, *Italy*, and *Germany*, in rough and uncultivated Grounds, and such as are mountainous.

Cesalpin affirms, that the Juice of this Plant is milky, but *Tournefort* in his *Histoire des Plantes aux environs de Paris*, assures us, that he always found it clear and lim-pid: *John Bauhin* says, the Flower consists of five Leaves, whereas 'tis composed but of one deeply cut into five Segments; nor is it of a bright, but a dull White for the most Part.

Narrow-leaved Swallow-wort, with a yellowish Flower, *Asclepias angustifolia*, *flore flavescente*. *H. R. Par.*

Swallow-wort with a black Flower, *Asclepias flore nigro*, C. B. Pin. 303. This is the *Asclepias flore nigro quorundam* of J. B. 2. 140. The *Apocynum* of *Columna*. *Phytob.* III.

The Root is fibrous, not much unlike to that of the first; the Stalks are pliant and smooth, two or three Cubits high, and very much branched, by the Help whereof it twines and wreaths it self round every Prop that stands near to it; the Leaves are full of Juice, soft, of a green Colour, and smooth, like those of the first, and some-what pointed at the Extremity; the Flowers are of a very dark Purple, black in Ap-pearance, if not narrowly surveyed; the Pods and Seeds are like those of the first, and are ripened in *August*; it is found in the rising and mountainous Grounds about *Montpelier*.

Asclepias Africana, *Aizooides*, *African* Swallow-wort: This is the *Fritillaria cras-sa Promontorii Bona Spei*, or the thick-leav-ed Fritillary of the Cape of Good Hope of *John Bodæus* a *Stupel* in his Notes upon *Theophrastus* 335. and the *Apocynum humile*, *Aizooides*, *siliquis erectis*, *Africanum* of *Her-man*. *H. L. Bat.*

Asclepias Africana, *Aizooides*, *longioribus foliis*, *minus dentatis*, African Swallow-wort, with longer Leaves, and less notched or indented: This is the *Apocynum humile*, *Aizooides*, *cauliculis longissimis*, *denticulis varioribus donatum*. *Pluk. Almag. Bot.*

Swallow-wort, with a Husk doubly forked at the Point; *Asclepias siliqua bifido mucrone*. *C. B. Pin.* 303. This is the *Asclepias Cretica*, or Swallow-wort of Candy, according to *Cusius. Hist. App. I. Tom. I. CCLV.*

It differs but little from the common Swallow-wort with a white Flower; the Leaves are of a paler Green, the Pods are shorter, but more thick, streaked all along, and double-forked at the Point, sometimes but one, yet often two together; the Flowers stand, two, three, or four together, upon short Footstalks, and are of a paler White.

Broad-leaved, oriental Swallow-wort, with a purplish Flower, and a firm Stalk, *Asclepias orientalis*, *latifolia*, *flore purpurascente*, *cauli firmo*.

The smallest oriental Swallow-wort, with a Flower from a black Purple inclining to a yellowish Colour, *Asclepias orientalis*, *minima*, *flore ex atro purpureo flavescente*.

Broad-leaved, oriental Swallow-wort, with a green Flower, *Asclepias orientalis*, *latifolia*, *flore viridi*.

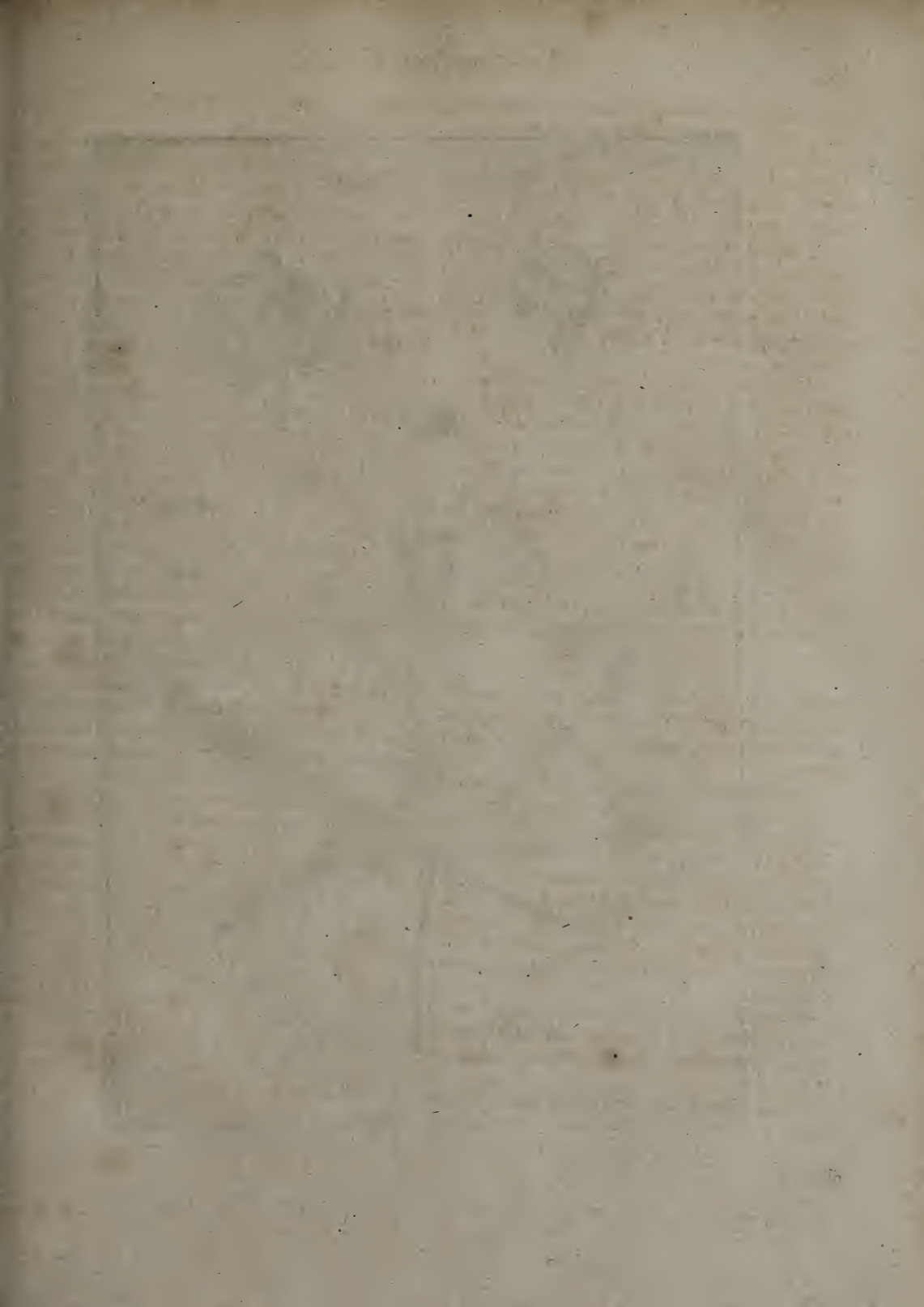
Broad-leaved, oriental Swallow-wort, without Smell, having a Flower of a yellowish Colour, and a Fruit forked at the Extremity, the Points bending inwards, *Asclepias orientalis*, *latifolia*, *inodora*, *flore flavescente*, *fructus mucrone bifido*, & *introrsum recurvo*.

Climbing, oriental Swallow-wort, with a large Leaf, and a party-coloured Flower, *Asclepias orientalis*, *amplissimo folio*, *scandens*, *flore vario*.

It is believed that this Plant had its Name

from the famous Physician *Asclepias* or *Esculapius*.

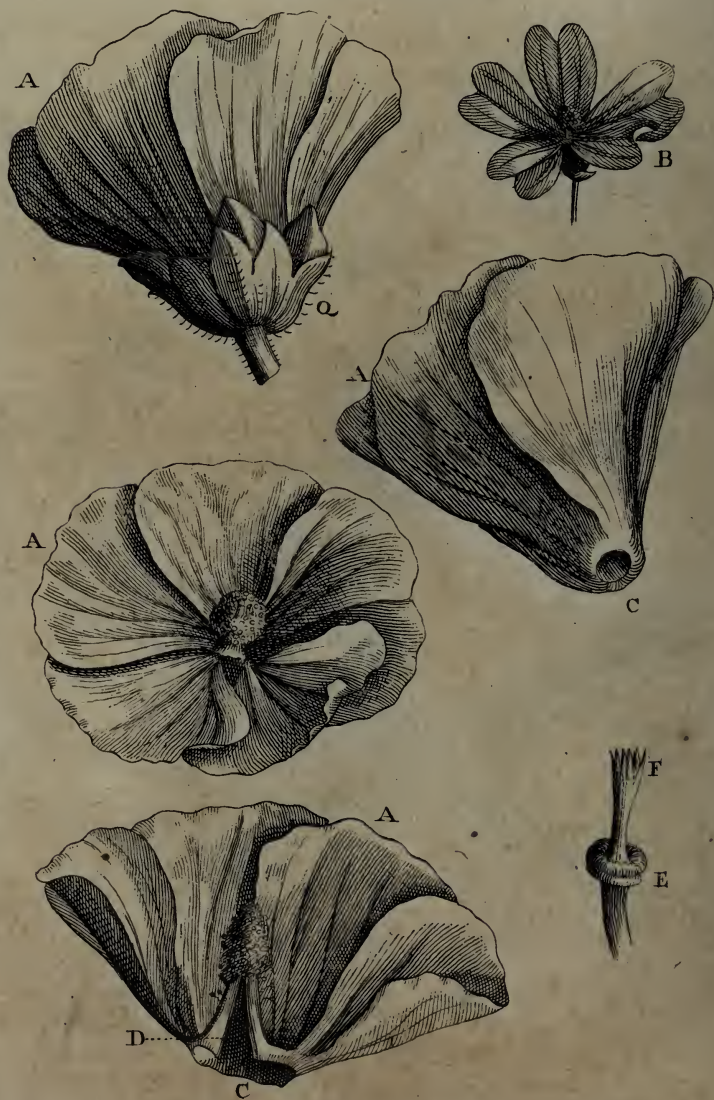
It is the first Species that is of common Use, known in the Shops under the Names of *Asclepias*, *Vincetoxicum hirundinaria*, &c. The Roots of this Plant are bitter, sharp, and give a gentle Tincture of Red to the blue Paper: The Leaves have a saltish Taste, and give a smaller Tincture of Red to the blue Paper, which makes it probable, that the Salt of this Plant is in some Measure like to that which *Angelus Sala* calls *Oxyal Diaphoreticum*, which is a fixed Salt, somewhat too much impregnated with an Acid; but in the Swallow-wort this Salt is involved in a large Quantity of Sulphur and Earth: So that it is not at all surprising, that this Plant is both a Sudorific and a Cleanser: *Tragus* assures us, That the Wine in which half a Pound of the Root of this Plant has been for some Time steeped, boiled afterwards to the Consumption of one third Part, provokes Sweat copiously, and affords great Relief in hydropic Cases; the Decoction of this Root volatilizes the Humours, and works both by Urine and Transpiration: And indeed 'tis preferable to the Decoction of Scorzonera-Roots, in pestilential and malignant Fevers; the Infusion of an Ounce of this Root into a Quart of boiling Water, afterwards strained and sweetened with any convenient Syrup, is of great Efficacy in a Suppression of the monthly Evacuations of Women, and of equal Benefit to such as have been bit by a mad Dog; the Extract of the Roots and Leaves produces the same Effects; Dose from $\mathfrak{z}\beta$ to $\mathfrak{z}\text{I}\beta$; the Herb externally applied by way of Cataplasin, dissolves the Swellings and Tumours in Women's Breasts; the Powder of the Leaves and Root cleanses Ulcers, no less effectually than that of the *Aristolochia* or Birth-wort, and may be used to as good Purpose in all Unguents, Lotions, &c. for that End.



Malva. Mallows.







S E C T. VI.

Of Herbs, with a Flower of one entire Leaf, in the Shape of a Bell, from the Bottom whereof there rises a Tube that receives the Pointal, which is changed into a Fruit consisting of many seminal Cells.

T A B L E XIII, XIV.

G E N U S I.

Malva, Mallows,

IS a Plant, with a Flower of one entire Leaf A, in the Shape of a Bell, having its Brim wide expanded, and cut into several Segments: From its Bottom rises a pyramidal Tube D, for the most Part loaded with many little Threads or Filaments; the Pointal EF, which is fixed like a Nail in the lowermost Part of the Flower C, and in the Tube D, shoots from the Flower-Cup Q, and is afterwards changed into a Fruit G, flat, round, and sometimes pointed, wrapped up for the most Part within the Flower-Cup H, and divided into several Cells LMP, so disposed round the Axle IK, that each little Lodge appears most artificially jointed within the several corresponding *Sirra* or Channels; the Seed N is often found shaped like a Kidney; to these Characteristicks this must be added, that the Leaves O are less infected than those of the *Alcea* or Vervain-Mallow, and not so rough and hoary as those of the *Althea* or the Marsh-Mallow.

Its Species are,

Rose-Mallows or Hollyhocks, with a Leaf somewhat round, and a Flower of a pale-red Colour, *Malva rosea, folio subrotundo, flore dilutius rubente.* C. B. Pin. 315. This is the *Malva rosea sive hortensis, flore carnea*, Garden-Mallows, with a Blush or flesh-coloured Flower, of J. B. 2. 951. The

Malva arborea sive hortensis, Tree or Garden Mallows of *Tabernemontanus*. Icon. 765. and the *Malva hortensis, flore simplici incarnato*; Garden-Mallows, with a single incarnate Flower. *Eyst.*

The Smell excepted, this Plant rivals the Rose, both in Beauty and Excellence; it shoots up with a thick, solid, and hairy Stalk, somewhat branched, to the Height of a little Tree; the Leaves are broad and rise in an alternate Order, singly, upon Footstalks pretty long, and covered with a soft Down; the lowermost, which shoot first, are round, those that rise higher upon the Stalk are cornered, and cut into five or seven Segments, jagged about the Edges, of a dark Green above, and a more whitish Green below, and hairy upon both sides, but in some the Down of the upper Side is so short that it is scarce perceptible; from their Angles with the Stalk, the Flowers shoot, sometimes but one, sometimes two or three together, standing upon short Footstalks; they are about the Bigness of a Rose, and divided into five Segments; sometimes with single, sometimes double Flowers, the Centre whereof is filled by a Cone, which spreads it self into several little Leaves of the same Colour with the Flower, within are lodged yellowish and purplish Chives; the Flowers stand in a double Cup, covered over with a hoary Down, and cut into five Divisions; the Seed is flat, the Root long, white, and tough; the second Year after it is sown, it sends up Stalks, and flowers in *July* and *August*; the Stalks die and perish every Year, but the Root is perennial.

Rose

Rose-Mallows or Hollyhocks, with a roundish Leaf and a white Flower, *Malva rosea, folio subrotundo, flore candido*. C. B. Pin. 315. This is the *Malva rosea sive hortensis, flore albo*; Garden-Mallows, with a white Flower, of J. B. 2. 951. and the *Malva hortensis, flore simplici albo*, Garden-Mallows with a white and single Flower. *Eyff.*

Hollyhocks, with a roundish Leaf, and a Flower of a deep Red, *Malva rosea, folio subrotundo, flore saturatiùs rubente*. C. B. Pin. 315. This is the *Malva rosea sive hortensis, flore saturè sanguineo*, Garden-Mallows, with a Flower of a deep blood Colour, of J. B. 2. 951. and the *Malva rosea, flore simplici rubro*, Garden or Rose-Mallows, with a single Flower of a red Colour. *Eyff.*

Hollyhocks, with a roundish Leaf, and a Flower of a shining purple Colour, *Malva rosea, folio subrotundo, flore purpure modo reluciente*. C. B. Pin. 315.

Hollyhocks, with a roundish Leaf, and a Flower from a red inclining to a blackish Colour, *Malva rosea, folio subrotundo, flore ex rubro nigricante*. C. B. Pin. 315.

Hollyhocks, with a roundish Leaf, and a Flower of a violet Colour, *Malva rosea, folio subrotundo, flore violaceo*. H. R. Par.

Hollyhocks, with a roundish Leaf, and a single Flower of a yellow Colour, *Malva rosea, folio subrotundo, flore simplici luteo*. H. R. Par.

Hollyhocks, with a roundish Leaf, and a double red Flower, *Malva rosea, folio subrotundo, flore pleno rubro*. C. B. Pin. 315. This is the *Malva hortensis, multiplici flore*; Garden-Mallows with double Flowers, of Dodonæus. Pempt. 652. and the *Malva rosea multiplex, flore pleno rubro*, Hollyhocks with double Flowers of a red Colour, of the Hort. *Eyff.*

Hollyhocks, with a roundish Leaf, and double Flowers of a white Colour, *Malva rosea, folio subrotundo, flore pleno albo*. C. B. Pin. 315. *Malva rosea, multiplex, flore albo*, double Hollyhocks, with a white Flower. *Eyff.*

Hollyhocks, with a roundish Leaf, with a double incarnate Flower, *Malva rosea, folio subrotundo, flore pleno incarnato*. C. B. Pin. 315. *Malva rosea, multiplex, flore incarnato*. *Eyff.*

Hollyhocks, with a roundish Leaf, and a double Flower of a bright Red, *Malva rosea, folio subrotundo, flore pleno puniceo*. C. B. Pin. 315.

Hollyhocks, with a roundish Leaf, and a double Flower of a blackish Colour, *Malva rosea, folio subrotundo, flore pleno nigricante*. C. B. Pin. 315. *Malva rosea, flore pleno atrorubente*, Rose-Mallows, with a double Flower of a blackish red Colour. *Eyff.*

Hollyhocks, with a roundish Leaf, and a double Flower of a deeper and a paler Yellow, *Malva rosea, folio subrotundo, flore pleno luteo & subluteo*. H. R. Par.

Hollyhocks of Aleppo, with a roundish Leaf, without Stalks, and a Flower of a pale Yellow, *Malva rosea, folio subrotundo, Chalybensis, acaulos, flore pallidè luteo*. Moris. Hist. Oxon. Part. 2. 524.

It differs in nothing almost from the greater yellow-flowered Garden Mallows, but that it bears many Flowers of a pale yellow Colour, leaning upon the Surface of the Ground without any Footstalks: Morison calls it *acaulos*, not that it wants a Stalk, but that it is so short that it seldom or never appears perceptible.

Virginian Mallows, with a Maple-Tree Leaf, *Malva, aceris folio, Virginiana*: This is the *Althæa Ricini folio, Virginiana*, in Herman's Catalogue. H. L. Bat.

Rough, American Mallows, with a Maple-Tree Leaf, *Malva aceris folio, Americana, hirsuta*: This is the *Alcea Corassavica, hirsuta, parvo flore, foliis lobatis*, rough Vervain-Mallows of Curacao, with a small Flower, and Leaves divided into Lobes in the Paradis. Bat.

American Mallows, *Malva Americana*. C. B. Prodr. 137.

The Root is long, white, and fibrous; the Stalk cornered and chanelled, and covered with a fine Down; the Leaves are green, thin, and for the most Part semicircular, two Inches long, three broad, cornered in their upper Part, and gently notched about the Edges, and stand upon rough or hairy Footstalks, a Hand-breadth in length; the Flowers and Seed are white.

American Mallows, shrubby and hairy, having yellow Flowers, collected into a little Head or Knot, *Malva Americana, fru-*

frutescens, hirsuta, floribus luteis in Capitulum congestis. Plumier.

Mallows with curled Leaves, *Malva foliis crispis*. C. B. 315. This is the *Malva crispa*, curled Mallows, of J. B. 2. 952. and the *Malva Crispatis oris* of Lobel. Icon. 651.

This Plant shoots up to the Height of a Man, yea, and exceeds it when it meets with a fertile Soil; the Stalk is thick, round, (tho' John Bauhin says, 'tis somewhat angular) of a greenish Colour, and often red when it grows in places exposed to the Sun, smooth, rigid or stiff, somewhat hollow, tho' for the most Part filled with a copious Pith, and branched; the Leaves grow in an alternate Order upon Footstalks, a Hand breadth, or a Span in length, hairy upon the one Side, and smooth upon the other; and adorn the Stalk from top to bottom; they are larger than those of the common Mallows, rough, with a short hairy Down, and are not only jagged, but ruffed or curled about the Edges, and exquisitely indented; the Flowers stand thick together upon short Footstalks, at those Parts where the Footstalks of the Leaves shoot from the Stalk, sometimes singly upon proper Footstalks, sometimes two, three, or more together, upon one common Footstalk, of a Colour from a very pale Red inclining to a White, and are deeply cut into five Segments, shaped like a Heart, streaked within with some Lines of a deep purplish Colour; the Flower-Cup is hairy, of a greenish Colour, and cut into five Divisions; it is supported or encompassed by three narrow Leaves, as is common to all the Mallows; the Root is a Span in length, sometimes longer, sometimes shorter, according to the Nature of the Soil, branched and white, moderately thick, and of an agreeable, clammy or glutinous Taste; it is an annual Plant, yearly reviving from its own Seed.

Common Mallows, with a greater Flower, and a cornered or jagged Leaf, *Malva vulgaris, flore majore, folio sinuato*. J. B. 2. 949. This is the *Malva sylvestris, folio sinuato*, Wild Mallow, with a cornered Leaf, of C. B. Pin. 314. and the *Malva sylvestris major*, or the greater wild Mallow of Tabernemontanus. Icon. 768.

The Root is single, of a whitish Colour, somewhat fibrous, of a sweet and clammy Taste, and penetrates deep into the Ground; it sends up several Stalks, round, hairy, full of Pith, branched, thick as a Man's little Finger, which rise three or four Foot in height; the Leaves are disposed singly in an alternate Order, and stand upon very long Footstalks; the lowermost, which rise immediately from the Root, are round; those upon the Stalks are jagged, of a blackish green Colour, notched about the Edges, and hairy, with a very fine and scarce perceptible Down; the Flowers shoot from the Bosom of the Leaves, several together upon long, slender, and hairy Footstalks, they are large, and of a pale Purple, streaked with some Lines of a deeper Colour; the Flower-Cup, in which the Flower lies wrapped up before it is blown, is divided into five Parts, and when closely contracted shows five very eminent and conspicuous Lines, as is observable in the Flower-Cup of the Cinqufoil; these five Leaves are encompassed by three others: The Seeds, as they lie joined and united, represent the Figure of a flat round Cheese or little Cake; it grows by Hedges and in ruinous and uncultivated Places; it is found diversified in the Colour of its Flower, which is sometimes white, and is called by Parkinson, *Malva vulgaris, flore albo*, common Mallows, with a white Flower.

Wild Mallows, with a cornered Leaf, and a white Flower, *Malva sylvestris, folio sinuato, flore albo*, in Sutherland's Catalogue of Plants in the physical Garden at Edinburgh. H. Edinb.

Wild Mallows, with a cornered Leaf, and a blue Flower, *Malva sylvestris, folio sinuato, flore caeruleo*. Hort. Cathol.

Wild Mallows, with a cornered Leaf, and a Flower of a red and purple Colour, *Malva sylvestris, folio sinuato, flore purpureo-rubro*. H. Cathol.

Wild Mallows, with a cornered Leaf, and a blue Flower, streaked with white Lines, *Malva sylvestris, folio sinuato, flore caeruleo, candidis lineis inscripto*. H. Cathol.

Wild Mallows, with a cornered Leaf, and a small Flower of a pale Purple, *Mal-*

va sylvestris, folio sinuato, flore dilute purpureo, duplo minori. Hort. Cathol.

Wild Mallow, with a rounder Leaf, less cornered, and of a blackish or dark Green, and a larger Flower, *Malva sylvestris, arvorenti folio, rotundiori, minus sinuato, majorique flore Hort. Cathol.*

Field-Mallows, with upright Stalks, a shining Leaf, and a greater Flower, *Malva arvensis, erecta, lucida, flore majore. Malva arvensis recta, rotundo-acuminato, angulato folio, pallide lucido, carneo flore, multo majore. H. Cathol.*

Common Mallows, with a smaller Flower, and a round Leaf, *Malva vulgaris, flore minore, folio rotundo. J. B. 2. 949.* This is the *Malva sylvestris, folio rotundo*, wild Mallows with a round Leaf, of *C. B. Pin. 314.* and the *Malva sylvestris minor*, the lesser wild Mallows of *Tabernemontanus. Icon. 769.*

This is smaller in all its Parts than the *Malva vulgaris, flore majore, folio sinuato, &c.* The Root penetrates as deep into the Ground, the Stalks are slenderer, and weaker, and are reclined upon the Ground, more hairy, but the Down is shorter, yet the middle Stalk is often upright and erected; the Leaves are smaller, and more round, those that adorn the highest Parts of the Stalks are less jagged, of a more blackish Colour, and shew a sort of hoary Covering; but the chief Difference lies in the Flowers, which are much smaller, from a pale Purple inclining to a whitish Colour, and streaked with purple Lines; it is no less common than the other, and grows in the same Places.

Wild Mallows, with a round and party-coloured Leaf, *Malva sylvestris, rotundo, variegato folio. H. R. Par.*

Mallows, with Leaves variously shaped, *Malva folio vario. C. B. Prodr. 137.* This is the *Malva Stellata*, starred Mallows of *J. B. 2. 950.*

The Stalks are slender, two, sometimes four, Foot in height, and branched; the first Leaves of the young and tender Plant, are small, round, and toothed like a Saw, and stand upon long Footstalks; but when it is grown up, the Leaves upon the Branches are pretty large, divided into three Parts, some of them imitating the Shape of an Arrow; the Taste is disagreeable and

viscid; the Flower is large, of a purple Colour, channelled, and cut into five Segments, shaped like a Heart; in the Middle stands a white Pointal, adorned with many Chives; the first Flower-Cup is membranous, as is the second, in which are five sharp Points representing the Figure of a Star; the Seed differs nothing from that of the common Mallows; the whole Plant is hairy; the Root, white and fibrous.

Summer Mallows, with a Flower of a purple Colour at the Bottom where the Segments unite, *Malva trimestris, flore cum unguibus purpureis. J. B. 2. 950.* This is the *Malva trimestris* of *Clusius. Hist. XXIII.*

This Species rises to the Height of a Foot, with a roundish Stalk, of a green Colour, and somewhat downy; the Leaves are disposed thereupon in no certain order, green above, and below of a paler Colour; those that shoot from the lowermost Part of the Stalk are almost circular, and toothed like a Saw round the Edges, but those that adorn the higher Parts of the Stalks, and the little Branches, are angular, nearly approaching in Shape to those of the *Althea* or Marsh-mallows; the Flowers stand at the Tops of the little Branches, they are pretty large, and composed of five Segments or seeming Leaves, in their extreme Parts shaped like a Crescent, of a purplish Colour, but their bottom Parts where the Divisions end, are of a deeper Purple; the *Stamina* or Capillaments, which rise from the concave Centre, are pale-coloured with purple Chives or Knobs; the Seed, contained within little leafy Heads or Buttons, is flat; the Root is small and whitish, having some few slender Fibres; it is an annual Plant, or rather lives but three Months; perishing by the subsequent Winter's Cold.

Mallow with an Ivy-Leaf, *Malva hederae folio. C. B. Pin. 315.* This is the *Malva altera* of *Matthiolum. 458.*

Round-leaved and smooth Spanish Mallows, with a large reddish Flower, *Malva rotundifolia, glabra, ex Hispania, flore amplo rubello. Pluknet. Phytog. Tab. 44. Fig. 3.*

Round-leaved Italian Mallows, with a large purplish Flower, *Malva rotundifolia, Italica,*

Italica, flore amplo purpurascente: This is the *Althaea virens*, rotundifolia, flore amplo, purpurascente *Italica*, of Barrelier. Icon.

Annual Mallows, with little white Flowers growing in whirls, *Malva annua*, flosculis albis, verticillatim nascentibus: This is the *Malva annua*, rotundifolia, floribus omnium minimis, albis pentapetalis, verticillatim genicula ambientibus, & seminibus arcte iisdem verticillatim adhaerentibus, annual, round-leaved Mallows, with the smallest Flowers, of a white Colour, surrounding the Joints or Knots of the Stalk in Whirls, and Seeds closely adhering to the same Joints in the said Disposition, of Morison. Hist. Oxon. Part. 2. 521.

This Species rises four or five Foot in height, and has each Joint adorned with several Flowers, of a white Colour, and deeply cut into five Segments, that they appear in a manner pentapetalous, or composed of five distinct Leaves; they are very small, and closely encompass the Stalk at every Joint in whirls, as if they wanted Footstalks; each Flower is succeeded by a little Head or Button, enclosing semicircular Seeds covered with a wrinkly Bark or Shell, circularly disposed round the nutritive Style; the lower Leaves are round, jagged, and curled, the higher and upper, oblong, and cornered; the Flowers are small, composed of five small seeming Petals or Leaves, and are succeeded by little flat round Cakes like Cheeses, closely adhering to the Joints in a circular Disposition.

Rough or hairy Mallows, with a Leaf shaped like a Heart, *Malva hirsuta*, folio cordato. Morison Hist. Oxon. Part. 2. 520.

This Plant has many rough, hairy Stalks, four Foot high; the Leaves are shaped like a Heart, pointed, and gently toothed like a Saw about the Edges, and stand upon short Footstalks; from the Angles of the Leaves with the Stalks, arise other short Footstalks supporting Flowers of a pale-red Colour; the Flowers are succeeded by little round flat Cakes like Cheeses, which are many small semilunar Seeds closely compacted into that Form, circularly disposed round the nutritive Style: It is an annual Plant, flowers in July and August,

and ripens its Seed in September and October; Morison had the Seed from Asia.

Annual hairy Mallows, with angular Ivy-Leaves, *Malva annua hirsuta*, foliis hederæ angulosis. Morison. Hist. Oxon. Part. 2. 521.

Portugal Mallows, with the red Curran-Bush-Leaf, *Malva Lusitanica Ribesii folio*.

Indian Mallows, with a Leaf shaped like a Heart, *Malva Indica*, folio cordiformi: This is the *Alcea Zeylanica*, folio latiori cordiformi, Vervain Mallows of Zeylan, with a broader Heart-like Leaf, in Herman's Catalogue of the Plants in the Garden at Leyden.

Mallows with Elm-Tree Leaves, and a beaked Seed, *Malva ulmifolia*, semine rostrato: This is the *Althaea ulmifolia*, semine rostrato, Marsh-mallows with an Elm-Tree Leaf, and a beaked Seed; in the Catalogue of Plants of the Royal Garden at Paris; and the *Malva annua di Pernambuco*, of Zannoni. 133.

Mallows with an Elm-Tree Leaf, and a Seed with a double Beak or Point, *Malva ulmifolia*, semine cum gemino rostro: This is the *Alcea Virginiana*, carpini folio, flosculis minimis luteis, semine duplici rostro seu aculeo pradito, Virginian Vervain Mallows, with the Horn-beam Leaf, the smallest Flowers of a yellow Colour, and a Seed with a double Beak or Point. Morison Hist. Oxon. Part. 2. 528.

The Leaves are like those of the Horn-Beam, placed two together in opposition upon an upright, round Stalk, which rises to a Foot and a half in height; the Flowers are yellow, and stand upon the Summits of the Stalk; they are succeeded by triangular Seeds, that have two Beaks or little sharp Points at the Extremity, closely compacted and disposed in a circular Order.

Mallows with an Elm-Tree Leaf, a Seed with a double Point or Beak, and Flowers standing in Clusters, *Malva ulmifolia*, semine cum gemino rostro, floribus racemosis: This is the *Alcea Zeylanica*, flosculis fasciculatim congestis, Vervain Mallows of Zeylan, with Flowers disposed in knots, in Herman's Catalogue. H. L. Bat.

Indian Mallows, with roundish Leaves, *Malva Indica*, foliis subrotundis: This is the *Althaea rostrata Cormanidienfis*, *Pimpinella majoris*

majoris folio subrotundo, beaked Marsh-mallows of Coromandel, with a Leaf somewhat round, like to that of the greater Burnet, of *Pluknet. Phytog. Tab. 9. Fig. 3.*

Mallows of Canada, with the Mulberry-Tree Leaf, and a Seed having a double Point or Beak, *Malva Canadensis, mori folio, semine cum gemino rostro*: This is the *Althæa Virginiana* *bidens*, *Pimpinella majoris acutioris folio, flosculis minimis luteis*, of *Pluknet. Phytog. Tab. 9. Fig. 6.* and the *Alcea mori folio, Virginiana minor*, the lesser *Virginian Vervain-mallows*, with a Mulberry-Tree Leaf. *Schol. Botan. 224.*

American Mallows, with an Elm-Tree-Leaf, and Flowers standing in knots at the Angles of the Leaves with the Stalk, *Malva Americana, ulmifolia, floribus conglobatis ad foliorum alas. Plumier.*

American Mallows with Vine-Leaves, and a roundish prickly Fruit, *Malva Americana, pampinea fronde, fructu subrotundo, echinato. Plumier.*

American Mallows, with the Leaf and outward Form of the Ivy, and Husks or Cells doubly forked, *Malva Americana, hederæ terrestris folio & facie, capsulis bifurcatis. Plumier.*

American Mallows, with an Ivy-Leaf, and a Flower of a scarlet Red, *Malva Americana, folio hederaceo, flore coccineo. Plum.*

Downy *American Mallows*, with the Leaf of the Musk-melon, *Malva Americana, villosa, Melonis folio. Plum.*

Small hairy Mallows of Candy, *Malva Cretica minor, hirsuta.*

Annual Mallows of Candy, rising to the greatest Height, with small Flowers standing in Tufts at the Angles of the Leaves, *Malva Cretica, annua, altissima, flore parvo, ad alas umbellato.*

Oriental Mallows, more upright, with a large Flower of an agreeable red Colour, *Malva orientalis, erectior, flore magno, suave-rubente.*

Both the *Latin* and the *Greek* Name of this Plant are derived from the verb *μαλάξω* or *μαδάω*, which signifies to soften, because such is the Power and Virtue of this Herb.

The Species most commonly used, is the *Malva vulgaris, flore majore, folio sinuato* of *J. B. Common Mallows*: Sometimes too

the *Malva rosea, folio subrotundo, &c.* Garden Mallows or Hollyhocks; but as their Powers and Faculties are the same with those of the *Althæa* or Marsh-mallows, we shall subjoin the Virtues of both to this last.

TABLE XV.

GENUS II.

Althæa, Marsh-mallows,

ITS Flowers and Fruit entirely resemble those of the Mallows, from which it differs, according to *Dioscorides*, in its Leaves, which are woolly, and; as it appears to me, hoary; to these Marks we must yield, and be satisfied with this sole distinguishing Characteristick, lest the famous Name of the *Althæa*, so much celebrated by physical Writers, should be banished the *Materia Medica*, *ὠνύμασται δὲ ἀλθαία διὰ τὸ πολυαλβὲς καὶ πολυχρηστον αὐτῆς*, says *Dioscorides*, 'tis called *Althæa* from its great Use, and the many medicinal Powers it is endowed with.

Its Species are,

Marsh-mallows of *Dioscorides* and *Pliny*, *Althæa Dioscoridis & Plinii. C. B. 315.* This is the *Althæa sine Bismalva* of *J. B. 2. 954.* and the *Althæa* or *Ibiscus* of *Dodonæus. Pempt. 655.* Common Marsh-mallows.

It has many white Roots shooting from one Head, long, and about the Thickness of a Thumb or Finger, pliant and tough, and full of a viscous or mucilaginous Juice, which, when steeped in Water, will thicken it almost to the Consistence of a Jelly; the Stalks are covered with a soft hoary Down, are slender, have a little narrow hollow Tube, and rise to the Height of three or four Foot; the Leaves are placed in an alternate Order, resembling those of the common Mallows, but are somewhat longer, cornered, toothed about the Edges like a Saw, and covered with a soft hoary Down or Wool; the Flowers rise from the Angles of the Leaves with the Stalk, are like those of the common Mallows, but

but smaller, of a white inclining to a bluish Colour; they are succeeded by such-like Cases as we have describ'd in the Mallows; it grows with us in maritime Marshes only, but in foreign Countries in Marshes far remote from the Sea-Coast: *Parkinson* tells us, that it grows in most of the Salt Marshes, from *Wolnich* down to the Sea, both on the *Kentish* and *Essex* shoar. *Ray* adds, the Place of its native Growth, which is only in such Parts as we have mentioned, as another Mark distinguishing it from the Mallows.

Marsh-mallows of *Dioscorides* and *Pliny*, with a more angular or cornered Leaf, *Althæa Dioscoridis* & *Plinii*, folio magis angulato: This is the *Malva sylvestris vel palustris*, aut *Ibiscus folio angulosiori*, wild or Marsh-mallows, or the *Ibiscus*, with a Leaf more cornered, in *Herman's* Catalogue of the Plants in the Garden at *Leyden*.

Marsh-mallows with a rounder, or less pointed Leaf, *Althæa folio rotundiori*, five minus acuminato, in *Sutherland's* Catalogue of the Plants in the physical Garden at *Edinburgh*.

Marsh-mallows resembling the common Sort, with a short and blunt-pointed Leaf, *Althæa vulgari similis*, folio reufo, breui. *Ray's Synopsis* 138.

Shrubby Marsh-mallows, with a more round and hoary Leaf, *Althæa frutescens*, folio rotundiore, incano. *C. B. Pin.* 316. This is the *arborescens* of *J. B.* 2. 958. and the *Althæa frutex prima* of *Clusius*. *Hist.* XXIV.

It rises like a little Tree or Shrub with a thick woody Stem, which stretches out many large Branches, that spread and divide into others still smaller, hard, and woody, and which are covered with a tough ash-coloured Bark; the Leaves are like those of the *Althæa*, but smaller, and more round, very soft, and all over hoary; the Flowers stand at the Extremities of the little Branches, and among the Leaves, and are of a pale Purple, not unlike to those of the common Mallows, and greater than the Flowers of the common Marsh-mallows; it loses not its Leaves till fresh ones succeed and shoot, as is usual to all the ever-green Plants: *Ray* is of opinion, that the *Althæa frutex prima* of *Clusius*, is the same with the *Althæa arborea* *Olbia*;

but our Author distinguishes them as two different Species.

Marsh-mallows with a larger Flower, *Althæa flore majore*. *C. B. Pin.* 316. This is the *Althæa flore grandi* *Alcea*, *Thuringiaca* *Camerario*, Marsh-mallows with a great Vervain-mallows Flower of *J. B.* 2. 955. and the *Althæa frutex tertia*, or third Shrub-Mallows of *Clusius*. *Hist.* XXV.

Its Flowers are large, even greater than those of the Vervain-mallows, and in colour either the same, or altogether white, in which lies the sole Difference between this and the first or common Sort.

Shrubby Marsh-mallows, with a sharp-pointed Leaf, and a small Flower, *Althæa frutescens*, folio acuto, flore parvo. *C. B. Pin.* 316. This is the *Althæa arborea* *Olbia* in *Galloprovincia*, Tree Marsh-mallows growing near to *Olbia* in *Provence*, of *Lobel.* *Icon.* 553.

Shrub Marsh-mallows of *Spain* with a rounder Leaf, *Althæa frutescens*, *Hispanica*, folio rotundiori.

Shrub Marsh-mallows of *Portugal*, with a Leaf more round and waved, *Althæa frutescens*, *Lusitanica*, folio rotundiori, undulato.

Shrub Marsh-mallows of *Portugal*, with a large and less hoary Leaf, *Althæa frutescens*, *Lusitanica*, folio ampliori, minus incano.

Tree Marsh-mallows, growing upon the Sea-Coasts near to *Venice*, *Althæa mariuma*, *arborea*, *Veneta*: This is the *Malva arborea*, *Veneta dicta*, parvo flore of *C. B.* 315. The *Malva arborea* of *J. B.* 2. 952. and the *Malva arborecens* in the *Hort.* *Eyst.*

This Tree Marsh-mallows rises with a woody Stem, four or five Cubits, sometimes ten or more, high, according to the Nature of the Soil, and so thick sometimes that a Man can scarce grasp it round with both his Arms; it is perennial, solid, and branched, and covered upon its upper Part with very large roundish Leaves, much larger than those of the common Mallows, and found oft-times curled about the Edges, very soft and woolly, feeling to the Touch like the softest Silk or Velvet; the Leaves of the Branches are smaller; among them the Flowers stand upon firm oblong Footstalks of a deep Purple, *Parkinson* says, with stripes and veins like the Flowers of the common Mallows; the Seeds both in their

Shape and Manner 'of growing, or Disposition resemble those of the Mallows, only they are much larger and thicker; it grows near to *Venice* all along the *Tuscan* shoar, and upon the *African* Coast also, where it lives many Years; with us, the second Year after it is sown it flowers, but ought to be carefully kept during the Winter from the Cold and the Rain.

French Tree-Marsh-mallows, growing upon the Sea-Coasts, *Althea maritima*, arborea, *Gallica*: This is the *Malva arborea*, marina, nostras, *English* Tree-Mallows, growing upon the Sea-Coasts, of *Parkinson*. *Theat.* 301.

'Tis thus described by him: This Tree-Mallows of our own Country is much like the former, having a woody Stem, thick as a Man's Arm, of a russet or hoary Colour, whereon grow soft whitish woolly Leaves, almost as large as the other, and as smooth as Velvet; the Flowers are large, and of a whitish or pale Purple, like in Form to a wild Mallows-Flower; the Root is white, great and woody, with divers long Strings annexed to it; it grows in an Island called *Dennie*, three Miles from *King's Road*, and five from *Bristol*, as also about the Cottages near *Hurst-Castle*, over against the Isle of *Wight*; and upon *The Bass*, a small Island in *Edinburgh Frith*.

Ray has ranked these two last Species among the Mallows, when the distinguishing Marks between the *Malva* and the *Althea* plainly determine them to belong to this last Genus.

Spanish Marsh-mallows, with undulated or waved Leaves, *Althea Hispanica*, foliis undulatis: This is the *Malva Hispanica* of *Morison*. *Hor. Reg. Bles.*

'Tis the first Species, the *Althea Dioscoridis* & *Plinii* of *Caspar Baubin*, &c. which is of common use: It is known in the Shops under the Names of *Althea*, *Bismalva* and *Ibiscus*; it is found with the Leaves more or less pointed; they appear too much so in the Figures of *Dodonæus*, *Clusius*, and *Lobel*; *Mathioli*, *Fuchsius*, and *Tabernemontanus*, have represented it with Leaves much more round, and 'tis in all appearance this last Species, which *Sutherland*, formerly Professor of Botany at *Edinburgh*, calls *Althea folio rotundiori*, sive *minis acuminato*;

the Leaves too of the Marsh-mallows are more or less angular; *Herman* calls that which has its Leaves cornered *Malva sylvestris*, aut *palustris*, aut *Ibiscus folio angulofiori*; *Cordus*, *J. Baubin*, *Morison*, and *Ray*, have imagined the Flower of this Plant to be pentapetalous, or composed of five distinct Leaves, whereas 'tis certainly one single Leaf deeply cut into five Segments.

The Leaves of the *Althea* or Marsh-mallow are of a glutinous insipid Taste, and give no tincture of Red to the blue Paper; the Roots have the same Taste, yet they tincture the blue Paper with some Degree of Red; the glutinous Juice of this Plant, which appears to be a Mixture of a large Quantity of Phlegm, Earth, an Acid, and Sulphur, so fetters the sharp Salt that it cannot discover it self, but by the Fire; for 'tis certain that by a chymical Analysis we obtain from the Marsh-mallow a concrete volatile Salt, and a fixed lixivial Salt; the Acid lies somewhat more disengaged in the Roots, seeing they gently tincture the blue Paper with Red; nevertheless 'tis probable that the Virtue of this Plant depends chiefly upon its glutinous Juice, which the Fire entirely destroys: By the Consent of all Authors, the *Althea* wonderfully asswages Pain, and is powerfully emollient or softens; by its slimy Juice or mucilage, it not only blunts the Points of the corrosive Salts, but in relaxing and softening the Fibres which undergo too great a Tension, it restores them to their usual Spring and Tone, and consequently allays the Pain, and makes it cease: The Herb, Root, and Seed allay Inflammations, assuage Pain, promote Expectoration, expel Urine, ripen Tumours, mitigate and correct the acrimony or sharpness of the Humours; they are chiefly used in all Distempers of the Bladder, in nephritic Cases, in an Asthma and Pleurisy; externally in Glysters, Cataplasms, &c.

The Root of the Marsh-mallows is employed in all Ptisans that are designed to cool, to soften and assuage Pain, but it ought not to be mixed with other Ingredients, but towards the End, lest it should give the Liquor a too glutinous or clammy Consistence; these Ptisans are of excellent use in a violent Cough, when the Spittle

is sharp or saltish: In four Pints of Water boil four Ounces of the Roots of Nenuphar, one Ounce of the Marsh-mallows Root, and in the strained Liquor dissolve two Drachms of Nitre, of Crystal mineral or vegetable Salt, and drink it by Cupfulls in a nephritick Cholick, in a Heat and retention of Urine, attended with a great Inflammation; when the Inflammation is over, the Marsh-mallows-Root must be left out, lest it should too much thicken the Humours: Boil three Handfuls of Pellitory in three Pints of Water, add one Ounce of the Roots of Marsh-mallows, strain the Decoction, then with Sugar boil it to the Consistence of a Syrup; this is to be taken mixed with proper Pissans: The Syrup of Marsh-mallows, according to the Description of *Charras*, is an excellent Composition: Quick Grass, Pellitory, Asparagus, and the other ingredient Plants, sharpen the Marsh-mallows, and render that Syrup effectually to operate by Urine, and to promote Expectoration; 'twas with this Intention that the *Florentine* Orrice was mixed as an Ingredient in the Tablets of Marsh-mallows: *Lemery*, who has made an excellent Choice of the best Compositions, and reformed them with great Judgment, quickens his with the Flowers of Benjamin; these Compound Lozenges are to be preferred to the Simple, for the Marsh-mallows demands something as a *Stimulus* to quicken and sharpen it; thus *Quercetan* has judiciously mixed in his Looch of Marsh-mallows the Flower of Brimstone, the Powder *Diátreos*, &c. and the Ointment of Marsh-mallows has been reasonably improved by adding Fenugreek, the Squill or Sea-Onion and Galbanum; and if 'tis to be employed in sciatic or rheumatick Pains; the Spirit of Wine camphorated may be mixed therewith; for the same Reason the Mucilage of Marsh-mallows made with Fenugreek Seed, is preferable to that which is simple, because it dissolves at the same Time that it carries off the Inflammation; this Seed ought to be mixed in the Poulitis that is made of Marsh-mallows and Milk, to dissipate or suppurate Tumours, according to the Disposition of the Humour; the Cataplasms prepared with the Root of this Plant, those of Flower-de-Luce and Onions

together with the four Flowers or Meals, are very useful to discuss the same Tumours, especially if you mix therewith the camphorated Spirit of Wine, the Spirit of Salt-Armoniac, or any other spirituous Liquor.

The *Althea* is with Success used in the following Cases, in the Stone of the Kidneys or Bladder, for which purpose the Syrup, or the Decoction of its Leaves, but especially the Root, or the Seed in any Preparation is highly beneficial. 2. In all Diseases of the Lungs, such as the Asthma, Cough, &c. and in a Pleurisy. 3. In all frettings or excoriations of the Intestines, in a Dysentery, &c. the Decoction of the Roots, but especially the Mucilage of the Seeds, is greatly useful. 4. To soften and ripen hard Tumours, for which end a Cataplasim of the Leaves or Roots is successfully used: The Mucilage of Marsh-mallows, extracted with Rose-water, asswages those torturing Pains that are raised by Vesicatories, it is an Observation of *Simon Paulli*, who recommends the Root of this Plant as a Specific in Dysenteries.

Besides these enumerated Virtues of the *Althea*, we find it recommended by *Dioscorides*, *Lib. 3. cap. 146.* as effectual against wounds, the King's Evil, those Kernels or Swellings generated behind the Ear, Inflammations of the Breasts, Excoriations of the Fundament, Cramps and Convulsions, the Root being boiled in Wine or honied Water, bruised, and applied, and the Decoction taken inwardly: Boiled, as is said, and reduced to the Consistence of an Ointment, by adding Hog's Lard, Goose-grease or Turpentine, it removes all Inflammations of the Womb: The Decoction produces the same Effect, and cleanses the Womb from all the Impurities which may be lodged there after the Birth: Boiled in Vinegar, and used as a Gargle, it cures the Tooth-ach: The green and dried Seed bruised and mixed with Vinegar, clears the Skin of Morpew, or any other Discoloration: Mixed with Oil and Vinegar, and the Skin therewith anointed, it prevents the Bittings of venomous Creatures: The Decoction of this Plant in Wine is used as a Remedy against the Stings of Wasps, Bees, and such like Insects, &c.

Mr. Ray gives it as an Observation of Dr. Page, that 31 of the powdered Root of this Plant, taken every Morning in Milk, is an excellent Remedy in a *Gonorrhæa*; it is one of the five emollient Herbs.

The common Mallows is possessed of the same Virtues, but in an inferior Degree, and is one of the five emollient Herbs.

TABLE XVI. Fig. 1.

GENUS III.

Alcea, *Vervain-mallows*.

THE Vervain-mallows, according to *Dioscorides*, has jagged or cut Leaves, by which Mark, if in it self considerable enough, we shall distinguish it as a separate Genus from the Mallows and Marsh-mallows.

Its Species are,

The greater common Vervain-mallows, with a Flower from a Red inclining to a Rose-colour, *Alcea vulgaris major*, *flore ex rubro roseo*. C. B. Pin. 316. This is the *Alcea vulgaris*, common Vervain-mallows of J. B. 2. 953. and of *Dodonæus*. *Pempt.* 656.

From a woody perennial Root, it sends up several round Stalks, two or three Foot in height, stuffed with a fungous or spongy Pith, somewhat hairy, and covered over with a bright greenish-coloured Dust or Powder; the Leaves, which shoot from the Root, and are lower upon the Stalks, are roundish, yet cut about the Edges, and stand upon long Footstalks; those which are upon the Stalks, are disposed in an alternate Series, and the nearer they are to the Top, stand upon shorter Footstalks, and are more deeply infected, being for the most Part divided into five remarkable Jags, like the Leaves of the Monks-hood, of a dark green Colour, and hairy, especially upon the under Side; the Flowers rise from the Angles of the Leaves with the Stalk, and stand thick at the Extremities of the Stalks and Branches, upon hairy Footstalks; they are of a beautiful rose, purplish, or flesh Colour, cut into five Seg-

ments, which are striped or streaked, and in some manner shaped like a Heart, the Flower-Cup is hairy, and divided into five Leaves, which are supported or encompassed by three others, more narrow; when the Flower is faded, it closely contracts it self, and degenerates into a Seed-Vessel; the Seeds are hairy, black when ripe, and when united represent the Form of a little flat cheese, as is common to the other Kinds; it flowers in Summer, and is found in several Parts of *England*, very commonly in *Kent*, and in some places more frequently found than the common wild Kind: This is the *Malva verbenacea* of *Parkinson* and *Gerard*; it is found diversified in the Colour of its Flower, which is sometimes white, and called by *Parkinson*, *Alcea vulgaris*, *flore albo*, common Vervain-mallow with a white Flower.

The greater common Vervain-mallows, with a whiter Flower, *Alcea vulgaris major*, *flore candidiore*. C. B. Pin. 316.

Common Vervain-mallows, with hairy seminal Husks, *Alcea vulgaris seminum involucris hirsutis*, in *Sutherland's* Catalogue of the Plants in the physical Garden at *Edinburgh*.

Vervain-mallows, with a round jagged Leaf, *Alcea folio rotundo, laciniato*. C. B. Pin. 315. This is the *Malva montana*, *sive Alcea rotundifolia, lacinata*, Mountain-mallows, or Vervain-mallows, round-leaved, and jagged, of *Columna*. Part. 1. 148.

The first Leaves of this Plant, before it shoots out its Stalk, are round, somewhat hairy below, divided into five Parts like the common Mallows, which they so nearly imitate, that they appear in nothing to differ, and the Resemblance is so great, that it imposes upon those that gather it; but when it sends up its Stalk, they begin to be so deeply cut into jags, that they appear entirely different, for to view the Stalk covered with Leaves, one would rather take it for the Monks-hood, the Leaf appears so exactly cut and jagged after the same Manner, nor till it flowers can it be judged or determined to be a Mallows: The Flowers are large, in Figure and Colour like those of the Mallows, but of a lively Rose-colour; when they are faded, a leafy Fruit, like that of the common Sort, suc-

ceeds,

Malacoides .

Tab. 16

Alcea Vervain Mallow.

pa. 62

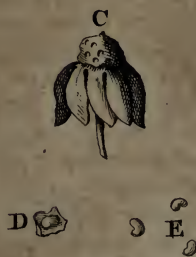


Fig. 1.



Abutilon Yellow Mallow.

Fig. 3.



M. V. g. m. d. d. d.

ceeds, enclosing flat, hairy Seeds, shaped like a Crescent, and of a blackish Colour; the Shape and Taste of the Root is the same with that of the Mallows; *Columna* discovered it upon a Mountain near to *Civita Vecchia*, and in the *Stazzo della Serra*, &c.

Hemp-leaved Vervain-mallows, *Alcea cannabina*. *C. B. Pin.* 316. This is the *Alcea Pentaphylli folio vel Cannabina*, Vervain-mallows with a Cinqufoil or Hemp-leaf of *J. B.* 2. 958. and the *Alcea fruticosa, cannabinifolia*, shrubby Vervain-mallows, with a Hemp-leaf, of *Clusius*. *Hist.* XXV.

This Plant, which surpasses the Height of a Man, rises with several rough and tough Stalks, that spread into divers Branches; the Leaves stand upon short Footstalks, nearly resemble the Leaves of Hemp, are divided into three Parts, of which the middle one is the longest, the others upon each Side shorter; these are again subdivided into others still smaller, so that it is not only cut into three, but sometimes into five Parts, differently notched about the Edges, hairy, and of a blackish Colour, not so rough as the Hemp-leaves, and of a viscid or clammy Taste; the Flowers stand sometimes singly, sometimes two together upon long Footstalks, or rather upon the Extremities of the little Branches; they are like those of the common Vervain-mallows, but smaller; they are succeeded by little Heads wrapped up within little Leaves, inclosing black Seeds like those of the curled Mallows; the Root is perennial, one Part whereof is greater, and the others lesser, white without and within, and of a very viscid clammy Taste; it is found about *Montpelier*, and in several Parts, both of *Italy* and *Sicily*.

The greater and tall Vervain-mallows of *Ray*, *Alcea major* & *procerior Raii*. *Hist.* 605.

It differs from the common Vervain-mallows in its Stalks, which are thicker and higher, for sometimes they surpass the Height of a Man, nor are they of so bright a green Colour, nor so round, but more channelled, nor hairy, and branched from the Bottom; the Leaves are larger, of a paler Green, and less jagged and infected; for those which stand up on the higher Parts of the Stalk, are only cut into three Jags, which reach to the very Footstalk; the

Footstalks of the Flowers are thicker and shorter, in Proportion to their Bigness; the Flower-Cup is divided into shorter Segments, but the three Leaves that encompass the Flower-Cup, are greater and broader; the Seeds are smooth and not hairy, but of a black Colour, as in the common Sort.

Hairy Vervain-mallows, *Alcea hirsuta*. *C. B. Pin.* 317. This is the *Alcea villosa Dalechampii*, rough Vervain-mallows of *Dalechamp*. *Lugd.* 594. and the *Alcea villosa* of *J. B.* 2. 1067.

From a single and slender Root, about a Hand-breadth in length, it sends up several round, rough, and hairy Branches, not exceeding a Foot in height; the Leaves are small, for the most part deeply cut into three Jaggs, toothed like a Saw, and covered with a woolly Down; the Flowers are of a purplish Colour, and stand in Cups composed of a double Row of sharp-pointed, rough, and hairy Leaves, wherein, after the Flower is faded, is contained a round Cake of blackish Seeds: It is found in the Vineyards about *Montpelier*, &c. *Parkinson* describes it under the Title of *Alcea minor villosa*: *John Bauhin's* Figure of this Plant is better and more exact than that which is in the History of Plants printed at *Lyons*.

Hairy Vervain-mallows, with a white Flower, *Alcea hirsuta, flore albo*. *Hort. Reg. Par.*

Ray's smaller, *Sicilian* Vervain-mallows, with a white Flower, *Alcea minor, Sicula, flore minore, Raii*. *Hist.* 605.

From a white single Root it sends up several hairy Stalks, which lie stretched upon the Ground, upon their upper Parts of a red Colour; the lower Leaves are roundish, and stand upon long Footstalks; those which adorn the Stalks are cut into three or five Jaggs, hairy, and notched about the Edges; the Flowers are small and of a Flesh-Colour; the Seeds are like those of the common Mallows.

Vervain-mallows, with thin curled Leaves, *Alcea tenuifolia, crispa*. *J. B.* 2. 1067.

This Species has its Leaf finely infected, and cut into many thin Jags, and curled, wherein it chiefly differs from the common Vervain-

vain-mallows; the Flowers and the Seeds are the same.

Vervain-mallows of *Provence*, growing upon the Sea-Coasts, with a Cranes-bill Leaf, *Alcea maritima Galloprovincialis*, *Geranii folio*: This is the *Alcea minor*, *maritima*, *tenuifolia*, *procumbens*, of the *Paradis. Batav.*

The Root is white, composed of many long Fibres, which unite in one Head; the Stalks are weak, lie spread and stretched upon the Ground, about two Foot in length; the lowermost Leaves are somewhat round, divided into five Parts, smooth, and like to those of the rocky Cranes-bill, or Smallage, or Coriander; but those which shoot from the Knots or Joints of the Stalks are larger, and more deeply cut and divided into narrow Segments; the Flowers are of an incarnate Colour, smaller than those of the common Vervain-mallows, and stand in Cups, which are divided into five Segments; when the Flowers are faded, the Cups serve for Seed-Vessels, and enclose many little blackish Seeds, shaped like Crescents, and circularly disposed round the axle or nutritive Style; tho' the Root be fibrous, yet it does not want that slimy mucilaginous Juice which the others abound with, and is consequently esteemed nothing inferior to them in its emollient Faculty.

The greatest Garden Vervain-mallows, with a Fig-leaf, *Alcea rosea, hortensis, maxima, folio ficus*: This is the *Malva rosea, folio ficus*, Rose-mallows, or Hollyhocks with a Fig-leaf, of C. B. Pin. 315. and the *Malva rosea, simplex, peregrina*, foreign Hollyhocks of *Tabernemontanus*. Icon. 767.

The greatest Rose or Garden Vervain-mallows, with a Fig-leaf, and a white Flower, *Alcea rosea, hortensis, maxima, folio ficus, flore albo*.

The greatest Garden Vervain-mallows, with a Fig-leaf, and a yellow Flower, *Alcea rosea, hortensis, maxima, folio ficus, flore luteo*: This is the *Malva rosea, folio ficus, flore luteo*, Hollyhocks, with a Fig-leaf, and a yellow Flower, in the Catalogue of Plants in the Royal Garden at *Paris*.

The greatest Garden Vervain-mallows, with a Fig-leaf, and a violet-coloured Flower, *Alcea rosea, hortensis, maxima, folio ficus, flore violaceo*: This is the *Alcea rosea,*

folio ficus, flore violaceo, Hollyhocks with a Fig-leaf, and a violet coloured Flower, in the Catalogue of Plants in the Royal Garden at *Paris*.

The greatest Garden Vervain-mallows, with a Fig-leaf, and a purple Flower, *Alcea rosea, hortensis, maxima, folio ficus, flore purpureo*: This is the *Malva rosea, flore purpureo, folio ficus*, Hollyhocks, with a Fig-leaf, and a purple Flower, in the Catalogue of Plants in the Royal Garden at *Paris*.

The greatest Garden Vervain-mallows, with a Fig-leaf, and a blush Flower, *Alcea rosea, hortensis, maxima, folio ficus, flore carneo*: This is the *Malva rosea, folio ficus, flore carneo*, in the Catalogue of Plants in the Royal Garden at *Paris*.

The greatest Garden Vervain-mallows, with a Fig-leaf, and a blackish Flower, *Alcea rosea, hortensis, maxima, folio ficus, flore nigricante*: This is the *Malva rosea, folio ficus, flore nigricante*, Hollyhocks with a Fig leaf, and a blackish Flower, in the Catalogue of Plants in the Royal Garden at *Paris*.

The greatest Garden Vervain-mallows, with a Fig-leaf, blackish, and rough, *Alcea rosea, hortensis, maxima, folio ficus, nigricante & aspero*: This is the *Malva folio ficus altera*, of C. B. Pin. 315. and the *Malva folio ficus* of the same Author, in his *Prodrom.* 137.

The most hairy shrub Vervain-mallows of *America*, *Alcea hirsutissima, Americana, frutescens*. *Plumier*.

Hairy Vervain-mallows of *Candy*, *Alcea Cretica hirsuta*.

Shrub oriental Vervain-mallows, with Leaves divided into three Segments, and a small Flower, *Alcea orientalis, frutescens, foliis tripartitis, flore parvo*.

The following Plants are to be excluded from this Genus, they bear not the Marks of the *Alcea*, and are to be ranked among the Species of the *Ketmia* the *Alcea vesicaria* of C. B. Pin. 317. *Alcea Indica, magno flore*, Indian Vervain-mallows, with a large Flower. C. B. Pin. 317. *Alcea Indica, parvo flore*, Indian Vervain-mallows, with a small Flower. C. B. Pin. 317. *Alcea Indica, parvo flore, altera*, a second Indian Vervain-mallows, with a small Flower. C. B. Pin. 317.

Alcea

Alcea Egyptiaca, villosa, hairy Egyptian Vervain-mallows. C. B. Pin. 317.

The *Alcea* or Vervain-mallows has the same Powers and Faculties, tho' not in an equal Degree with the Mallows: *Pena* and *Lobel* observe, that its Juice is not so clammy and viscid, but that it dissolves more powerfully: *Tournefort*, in his fourth Herborisation, tells us, That the Figures which *Lobel* and *Dodoneus* have given of the *Alcea vulgaris major*, &c. are not good, that the Figure of *Tabernemontanus* is the most exact; and is of Opinion, That the Figures of *Matthioli* and *Fuchsius* are to be referred to the *Alcea Cannabina* or Hemp Vervain-Mallows, because the Leaves are more deeply cut and infected.

TABLE XVI. Fig. 2.

GENUS IV.

Malacoides,

IS a Plant with a Mallows-Flower; but having a Fruit, tho' dry, like that of the Bramble A: For 'tis composed of several Cells B, collected into a sort of little Head or Button, and fixed to the *Placenta* or nutritive Membrane C, enclosing Seeds D, shaped for the most Part like a Kidney E.

Its Species are,

Malacoides with a Betony-Leaf, *Malacoides Betonica folio*: This is the *Malva Betonica folio*, Mallows with a Betony-Leaf, of *Morison*. H. Reg. Blef. and of *Bocconi*. Rar. Plant. 15. and the *Alcea Betonica folio*, flore purpuro-violaceo, Vervain-mallows with a Betony-Leaf, and a Flower of a purple-violet Colour, of *Barrelier*. Icon.

Malacoides with an angular or cornered Leaf: This is the *Malva Tingitana*, flore caeruleo, parvo, of *Plukner*. Phytog. Tab. 44. Fig. 2.

It is called Malacoides from *μαλακή* a Mallow, because of the Resemblance which it bears of that Plant.

TABLE XVI. Fig. 3.

GENUS V.

Abutilon, Yellow-mallows,

IS a Plant with a Mallows-Flower, and a Fruit A, which in some Manner resembles a little Head or Button, composed of several little Husks or Sheaths B, so disposed round the Axle D, that each Cell CB, which is bivalve or opens into two Parts E, and encloses Seeds F, found often shaped like a Kidney, is nicely jointed in to the corresponding Chanels or *Striae* of the Axle.

Its Species are,

The *Abutilon* of *Dodoneus*. *Pempt.* 656. This is the *Althea Theophrasti*, flore luteo, the Marsh-mallows of *Theophrastus*, with a yellow Flower, according to C. B. Pin. 316. and the *Althea Theophrasti*, flore luteo, quibusdam *Abutilon*, the Marsh-mallows of *Theophrastus* with a yellow Flower, the *Abutilon* of some Authors, according to J. B. 2. 958.

It rivals the common Marsh-mallows in its downy Softness: The Root is small, and white, having some few adnascent Fibres, and of a sweetish Taste; the Stalk is externally covered all over with a soft woolly Down, and hoary, leaving a fatish oily Substance upon the Hand that touches it: Under the outward Bark, which is easily peeled off, there lies a Wood white and hard, like that of the Willow, filled with a green juicy Pith; the Leaves are disposed upon the Stalk in no Order, they stand upon Footstalks a Hand-breadth in length, sometimes shorter, they are broad, almost entirely round, if they did not end in a sharp Point, and covered over with a hoary velvet Down; from their Angles with the Stalk the Branches shoot, and the Flowers from the same Part, which resemble those of the Water-Avens, of a deep Yellow, channelled or streaked, and cut into five Segments, with a Knot of yellow Chives standing in the Middle: The whole

whole Flower is supported and encompassed by five hoary woolly Leaves; they are succeeded by little woolly Heads or Buttons, somewhat smaller than the Walnut, flat upon their upper Part, composed of ten or twelve flat broadish Husks ending in a sharp Point, and circularly disposed; they enclose flat, brownish, semicircular Seeds, that contain a white, sweet Pulp or Pith; it is an annual Plant, that lives but a short Time; it is cultivated in Gardens: *Caspar Bauhin* found it between *Ferrara* and *Bononia*, four Foot in height.

Abutilon of the *Indies*, *Abutilon Indicum*, *J. B.* 2. 959. and of *Camerarius. Hort.* 3. Tab. 1. *Althæa Theophrasti similis. C. B. Pin.* 316.

The Flower is of a pale or whitish yellow Colour, and stands upon a Footstalk which is hairy, as is the Stalk and the young Leaves, but not of that silken Softness as the commonly known *Abutilon* or Yellow-mallows of *Italy*: The Footstalks stretch out or divide into Fibres, and furnish Veins or Nerves to the Leaves, which upon one Side are of a paler, and upon the other of a deeper Green; at the Joints the Stalk is of a reddish Brown; the Flower is succeeded by a blackish Fruit or Husk, fashioned like a Star, which contains a black Seed: The external Husk is of a Colour from a Green inclining to a Yellow; the Root is of a pale Colour and fibrous.

Indian Abutilon, with Vine-Leaves, and a Fruit divided into five seminal Cells, *Abutilon Indicum*, fronde pampinea, fructu quinqucapsulari: This is the *Cata-Beloceren* of the *Hortus Malabaricus*. 6. 79.

It rises with a Stem two or three Foot in height, the Branches are of a brownish Colour, and somewhat hairy, the Root fibrous; the Leaves are thick, soft, divided into five Points, toothed like a Saw about the Edges, and stand upon long, hairy Footstalks; the middle Rib has three principal Branches, and seldom spreads into more; upon their upper Side they are of a dark, and upon the under Side of a brighter Green; they have neither Taste nor Smell; the Flowers are of a Colour from a pale Green inclining to a Yellow, streaked in their inferior Parts with some conspicuous Veins running lengthways, and folded into small

wrinkles; from their concave Centre rises a Style or Pointal somewhat thick and long, of a purple Colour, at the Top it divides it self into two Parts which spread into Filaments of a purple Colour, and thin as the finest Silk, and stands surrounded with red *Stamina* or Threads, crowned with brownish Chives; the Flower-Cup is composed of five Leaves, and at the little Footstalk is encompassed with seven, eight, often nine, little narrow Leaves; the Flowers are succeeded by a Fruit, which consists of five seminal Cells, flat, hairy, and of a blackish Colour; the Seeds are trilateral, two whereof are flat, and the third Convex, and of a blackish red Colour: It delights in a sandy Soil, and is never without Flowers and Leaves; it grows in plenty in *Angecaimal*.

Abutilon, with rough hairy Stalks, a sharp-pointed Leaf, and a small Fruit fashioned like a Star, *Abutilon caulibus asperis, hirsutis, folio acuto, fructu minore, stellato*: This is the *Althæa caulibus asperis, hirsutis, flore incarnato, parvo*, Marsh-mallows with rough, hairy Stalks, and a small Flower of an incarnate Colour, in the *Prodrom. Par. Batav.*

African Abutilon, with wrinkled Leaves, and little woolly Husks of Oldenland, *Abutilon Africanum, foliis rugosis, & siliculis lanuginosis. Oldenl.*

The greatest *American Abutilon*, having the Footstalks and Nerves of the Leaves of a purplish Colour, *Abutilon Americanum maximum, pediculo & foliorum nervis purpurascensibus. Lignon.*

American Abutilon, with the largest Leaf, and a hoary Stalk, *Abutilon Americanum, amplissimo folio, caule villosa. Plumier.*

Shrubby *Abutilon* of *America*, with a roundish Leaf, a yellow Flower, and a greater Fruit, with a prickly Point, *Abutilon Americanum, fruticosum, folio subrotundo, flore luteo, fructu aculeato majori. Plumier.*

Shrubby *Abutilon* of *America*, with an oblong Leaf, a yellow Flower, and a smaller Fruit, with a prickly Point, *Abutilon Americanum, fruticosum, folio oblongo, flore luteo, fructu aculeato minori. Plum.*

Marsh *Abutilon* of *America*, having its Flowers standing in pyramidal Spikes, small, and of a whitish Colour, *Abutilon Americanum*



Ketmia



canum, palustre, spica florum pyramidata, flore parvo exalbido. Plumier.

'Tis the first Species which is of use, and is the *Abutilon* or yellow Mallows of the Shops; the Leaves externally applied cleanse Ulcers, and are used for that end by Surgeons in their Lotions; the Seed expels Urine, and the Stone.

TABLE XVII.

GENUS VI.

Ketmia,

IS a Plant with a Flower of one entire Leaf A, of the expanded Bell-shape, and nothing different from a Mallows-Flower, the Pointal D, which is fixed like a Nail in the bottom Part B of the Flower, rises from the Flower-Cup C, and is afterwards changed into a Fruit E, divided into several feminal Cells F, opening from the Top downwards G, and enclosing many Seeds H.

Its Species are,

Ketmia of Syria, *Ketmia Syrorum quibusd. am. C. B. Pin. 316.* This is the *Alcea arborescens, Syriaca ejusdem*, the Syrian Tree Vervain-mallows of the same Author, *Ibid.* and the *Alcea arborescens, glabra, Ketmia dicta*, smooth Tree-Vervain-mallows, called *Ketmia*, of *J. B. 2. 957.*

It rises like a Shrub with lignous Stems, covered with a blackish Bark, as are the Branches into which they spread: The Leaves are angular, cut into some few Jaggs, and toothed like a Saw about the Edges, upon the upper Side of a deep Green, and of a paler underneath; they are disposed in no regular Order; the Flowers stand upon the highest Branches, large as a Rose, and elegantly beautiful; they are cut into five Segments, of a white Colour, striped with many purple Veins: The Bottom of the Flower is of a bright Purple; from the Centre rise many yellow Threads, and a white Style or Pointal, which divides it self into several Parts. *Caspar Bauhin* says, that the Flowers of this Plant are of a red purplish, and that in length of Time they

turn to a blue Colour; it is this Species, which for the Beauty of its Flower is so carefully cultivated in our Gardens, under the title of *Alibea frutex* or Shrub Marsh-mallows.

Syrian Ketmia, with a Flower of a purple and violet Colour mixed, *Ketmia Syrorum, flore purpuro-violaceo*: This is the *Alcea Syriaca, flore purpuro-violaceo*, Syrian Vervain-mallows, with a Flower of a purple-violet Colour, in the Catalogue of Plants in the Royal Garden at Paris.

Syrian Ketmia, with Flowers party-coloured with white and red, *Ketmia Syrorum, floribus ex albo & rubro variis*: This is the *Alcea Syriaca, floribus ex albo & rubro variis*, Syrian Vervain-mallows, with Flowers of a red and white intermixed, in the Catalogue of Plants in the Royal Garden at Paris.

Syrian Ketmia, with a yellow Flower, *Ketmia Syrorum flore flavo*: This is the *Althaea arborescens, glabra, Ketmia Syrorum dicta, flore flavo*, smooth Tree-Marsh-mallow, called Syrian Ketmia, with a yellow Flower, in *Hermanus's* Catalogue of Plants in the Garden at Leyden.

African Ketmia, with a poplar Leaf, *Ketmia Africana, populi folio*: This is the *Althaea rosea peregrina, forte Rosa Moschentos Plinii*, foreign Rose Marsh-mallows, perhaps the *Rosa Moschentos* of *Pliny*, according to *Cornutus. 144.*

The Stalks are round, green, full of Pith, in a Word, like those of the Mallows: The Leaves are roundish, underneath greyish, with a fine soft Down, more green above; the Top of each Stalk is adorned with several little green Buttons, each standing upon round Footstalks, surrounded upon all Sides with many little oblong narrow Leaves; these Leaves shoot from the Base of the Button, and are placed at certain Distances in a beautiful Order, encompassing the Button like Rails; the Button, when ripe, opens into five Parts, and discloses five broad Leaves, or rather Segments, which represent a Rose-Flower, like unto, but larger than a Hollyhock; in the middle stands a Tuft of white Threads encompassing the Pointal, which issues out of the green Button or Husk; it flowers about the end of August; for the Beauty of its

Flowers it is transplanted from the *African Woods* into the Gardens of the Curious; the Stalks perish every Year, but the Root, which is white, long, and tough, outlives the Winter.

African Ketmia, with a poplar Leaf, hoary underneath, and a greenish Stalk, *Ketmia Africana*, *populi folio*, *subtus incano*, *caule virecente*: This is the *Althæa Indica*, *ulmi folio*, *prægrandis*, *subtus incana*, *floræ amplo purpureo*, great Indian Marsh-mallows, with an Elm-Leaf, hoary underneath, and a large purple Flower of *Pluknet*. Tab. 6. Fig. 3.

The lower Leaves of this Plant are intire and undivided, the higher are cut into three Jaggs, and whitish underneath; it is called by *Bannister*, in his Catalogue of *Virginian Plants*, *Althæa magna*, *quinquecapsularis*, *foliis integris*, *subtus albicantibus*, *floribus magnis*, great Marsh-mallows, with undivided Leaves, whitish underneath, large Flowers, and a Fruit consisting of five seminal Cells. *Ray*.

African Ketmia, having a little membranous Bladder that covers the seminal Vessel, a Leaf divided into three Parts, and a purple Flower, *Ketmia Africana*, *vescaria*, *folio tripartito*, *floræ purpureo*: This is the *Alcea Africana*, *sen vescaria*, *trifolia*, *floræ purpureo*, *African Vervain-mallows*, with a Trefoil-Leaf, and a purple Flower, of *Barrelier*. *Icon*.

Indian Ketmia, with a Poplar-Leaf, and a round flat Fruit, *Ketmia Indica*, *populi folio*, *fructu orbiculato*, *compresso*: The *Bupariti* of the *Hortus Malabaricus*. 1. 51.

Indian Ketmia, with a Lime-Tree-Leaf, *Ketmia Indica* *tiliæ folio*: The *Pariti* or the *Talipariti* of the *Hortus Malabaricus*. 1. 53.

These two last Species are described by *Ray*, the one under the title of *Alcea Malabarica* *Abutili folio*, *floræ majore*, *ex albo flavescente*, *Bupariti Malabarensium*; the other under the title of *Alcea Malabarica*, *Abutili folio*, *floræ minore*, *ex albo flavescente*, *exteriorius subaspero*: *Pariti*, *sen Talipariti Malabarensibus*.

Indian Ketmia, with a Cotton-Leaf, of an acid Taste, like Sorrel, *Ketmia Indica*, *Gossypii folio*, *acetosa sapore*, *Indian Marsh-mallows*, with a Leaf like that of the Cot-

ton-Plant, and of a Taste like Sorrel, of *Herman*. *H. Lugd. Bat.*

It has a whitish fibrous Root, that dies every Year; the Stalk is three Foot high, green, smooth, sometimes cornèred, branched, and of a Substance that may be drawn into Threads like Flax; the Leaves have three Lobes, are of a pleasant agreeable Green, stand upon long Footstalks, and in Form and Bigness approach to the Leaves of the Cotton-Plant; from their Angles with the Stalk or Branches the Flowers rise upon short Footstalks; they are large, and of an incarnate Colour, cut into five Segments, with a Pointal of the same Colour, clustered with Chives standing in the middle; they are supported by a five-leaved Flower-Cup, out of which, when the Flowers are faded, rises an oblong membranous Seed-Vessel, pentagonal, and divided into five Cells, enclosing brownish flat Seeds; the Leaves have a fowrish and somewhat clammy Taste; the Stalks of this Plant, as those of the Flax with us, are drawn into Threads, and are used for the making of Ropes, for which end the *Indians* sow it yearly in their Fields and Gardens.

Tree-Ketmia of *America*, with a Mal-lows-Leaf, of an acid Taste, like Sorrel, *Ketmia Americana*, *arborescens*, *malvæ folio*, *acetosa sapore*. *Plumier*.

Ketmia of China, with a roundish Fruit, and a single Flower, *Ketmia Sinensis*, *fructu subrotundo*, *floræ simplici*: This is the *Althæa arborea*, *rosea*, *Sinensis*, *floræ simplici*, Tree, Rose Marsh-mallows of *China*, with a single Flower, in *Herman's Catalogue* of Plants in the Garden at *Leyden*; and the *Rosa Sinensis*, *quinquefolia*, the five-leaved Rose of *China*, of *Ferrarius*. *Flor.* 493.

The Root is white, lignous, and branched, with numerous Fibres issuing from it; the Stem or Trunk is of a pale Colour, single and smooth, from its upper Part it shoots various Branches, which widely stretch and expand, and is of a Substance white and fleshy like the Fig-Tree; the Leaves are placed in an alternate Order, two in Opposition, big as the Vine-Leaf, rough like the Fig-Leaf, and in Shape resembling both, or rather the angular Ivy-Leaf,

Leaf, they are however notched about the Edges, and somewhat cornered; above, they are of a grassy Green, below, whitish; and upon both Sides distinguished with branchy Nerves or Veins, of a pale green Colour, and rough, with a woolly Down: Their Footstolks are thick and rough, very long, often a Hand-breadth in length, at first green, afterwards in their upper Parts, reddish; they fall before the Winter Solstice: The Flowers stand in green Husks, divided into five Parts, at the Tops of the Branches, in some they are single, consisting of five, six, eight, or ten large crumpled Leaves, or rather Segments, for it is composed but of one single Leaf deeply cut, in others 'tis double; they are all white, with a small Blush towards the Edges; when they have continued for some Time blown, they change to a deeper Blush, and still as they fade, deeper; these changes are often seen in one and the same Day, yet sometimes not in two or three Days: *Ferrarius* enlarges eloquently upon this mutation of Colours, as if 'twere miraculously singular, when 'tis observed in the Flowers of other Plants, as of the *Echium Scorpoides*, and the *Pentillaria* of *Rondeletius*; in the middle of the Flowers there stands a green Head or Button, encompassed with many yellow Threads like the Rose, which when grown to maturity, shows several Ridges and Furrows on the Outside, and is divided within into various Cells, distinguished by their several membranous Partitions, which enclose small, long, round, crooked, and reddish Seed, somewhat hairy upon the back or gibbous Part, 163 Seeds have been numbered in one Seed-Vessel; those who desire a larger and more circumstantiated Description, may consult Mr. Ray and *Baptista Ferrarius de Florum Cultura*.

Ketmia of China, with a roundish Fruit, and a full Flower, *Ketmia Sinensis*, fructu subrotundo, flore pleno: This is the *Sinensis* *Rosa arbuscula* of *Ferrarius*. *Flor.* 485.

Marsh-*Ketmia*, with a purple Flower, *Ketmia palustris*, flore purpureo: This is the *Althaea palustris* of C. B. *Pin.* 316. the *Althaea sida dicta quibusdam*, Marsh-mallows, the *Sida* of some Authors, and the *Althaea hortensis* sive peregrina, Garden or foreign Marsh-mallows, of *Dodonæus*. *Pempt.* 655.

The Leaf is like that of the *Abutilon* or yellow Mallows, from a round Figure ending in a sharp Point, of a delicate fine Texture, soft, hairy, and toothed about the Edges; the Flower is large, and cut into five Segments, equal in bigness to that of the *Malva rosea* or Hollyhock, with long Threads in the Middle, of a purple Colour, according to *Pena* and *Lobel*, deeper than that of the Peony; at the Tops of the Stalks in the Vintage-time, are seen little round oblong Bladders of a dusky Colour like the Cods of Birthwort, full of Seeds, like those of the *Smyrnum* or *Allisanders*, or of the Colour and bigness of the Millet; the Root is like that of the *Malva hortensis* or Garden-Mallows, the Stalk rises four Foot high: *Dodonæus* says the Fruit is tuberos, almost round, yet pentagonal, and opens into five Parts when ripe.

Ketmia with rough hairy Stalks, a Fruit fashioned like a Star, and a Leaf shaped like a Lance, *Ketmia caulibus asperis, hirsutis, fructu stellato, foliis lanceolatis*: This is the *Althaea caulibus asperis, hirsutis, flore incarnato, parvo*, Marsh-mallows with rough, hairy Stalks, and a small incarnate Flower, in the *Prodrom.* to the *Paradis. Bat.*

Indian Ketmia, with a Leaf shaped like a Spear, and a hard Fruit, *Ketmia Indica, folio hastato, fructu duro*: This is the *Alcea Indica, folio hastato, flore parvo, purpureo, longo pediculo insideme, pericarpio compacto, duro, in quinque cellular, totidem semina includentes, dispersito*, *Indian Vervain-mallows* with a Leaf shaped like a Spear, a small purple Flower, standing upon a long Footstalk, and a Fruit of a hard compact Substance, divided into five seminal Cells, enclosing the like Number of Seeds. *Pluknet. Phytog. Tab. 7. Fig. 1.*

Indian Ketmia, with a large Vine-Leaf, *Ketmia Indica, viris folio ampliore*: This is the *Alcea Indica magno flore*, *Indian Vervain-mallows* with a great Flower, of C. B. *Pin.* 317. the *Bamie aliquatenus affinis, sabbariffa* of J. B. 2. 960. and the *Alcea Americana* of *Clusius*. *Hist.* XXVI.

This Plant has a strait, chanelled, purplish Stalk, rising to the Height of four or six Foot, yea, and surpassing it sometimes if it meet with a fat Soil in the Garden where 'tis cultivated; from the very Bottom

tom it is adorned with many green Leaves, irregularly disposed, the lowest are toothed about the Edges like a Saw, but not jagged; those that stand about the Middle are cut or divided into three indented Jaggs, and the highest into five, like Hemp Leaves: The Top of the Stalk ends in a Spike of narrow Leaves; at every branching it bears Flower-Cups set with soft Prickles, out of which rises a large Flower cut into five Segments, of a pale White, but at the Bottom tinged with a deep and blackish Purple, which spreads it self in Rays along the *Petala* or seeming Leaves; the Centre is filled by many Threads or *Stamina*, with yellow Chives, surrounding a white middle Pointal, which is branched at the Top; the Flowers which are but short-lived, (for one Day is the Period of their Duration,) are succeeded by short, prickly, sharp-pointed, and pentagonal little Heads or Buttons, externally covered with a white Down, which contain Seeds like those of the Thorn-Apple; the Root is for the most Part composed of many whitish Fibres, and lives but a short Time in our Climate, especially where it seldom bears Seed; it flowers about the beginning of Autumn.

Indian Ketmia, with a horned Fruit or Seed-Pod, and a Vine-Leaf, *Ketmia Indica*, *vitis folio*, *fructu corniculato*.

Egyptian Ketmia, with a Vine-Leaf, and a small Flower, *Ketmia Egyptiaca*, *vitis folio*, *parvo flore*: This is the *Alcea Indica*, *parvo flore*, *Indian Vervain-mallows* with a small Flower of *C. B. Pin.* 317. the *Bamia* of *J. B.* 2. 959. and the *Alcea Egyptica*, *Egyptian Vervain-mallows* of *Clusius. Hist.* XXVII.

It rises with a strait, round, greenish Stalk, three Foot high, upon which the Leaves are disposed in no regular Order; those that adorn the lowermost Part of it, are deeply cut into three Jaggs, toothed about the Edges like a Saw, and nearly resembling those of the Mallows; but those that shoot from the Middle to the Top of the Stalk are divided into five deep Jaggs, like those of the *Sabdariffa* or Thorny-mallows, but the Jaggs not altogether so deep, and their Colour of a paler Green; the Flowers rise from the Angles of the Branches with the Stalk, in Form and Colour

like those of the *Sabdariffa*, but smaller, and equally short in their Duration; they are succeeded by sharp-pointed pentagonal Heads or Buttons, long and thickish, and covered with a Nap, and when ripe, split or open into five Segments, each whereof has in its Middle a membranous Partition running lengthways, with a row of Seeds annexed to it upon each Side; the Seeds are round, smaller than those of the *Orobis* or bitter Vetch, having a white, sweet Pulp within a black, curled, and thickish Rind; the Root is somewhat fibrous, but of no long Continuance, for the first gentle Frosts kill it; the *Egyptians* eat the Fruit of this Plant as we do Pease and Beans.

The *Bamia Ethiopica*, *siliqua decagona*, mentioned by *Clusius* in his *App. alt.* differs from this last described, perhaps only in the bigness of its Fruit or Husk, and the Number of its Angles. *Ray.*

Indian Ketmia, with a Vine-Leaf, and a yellow pendulous Flower, *Ketmia Indica*, *vitis folio*, *flore flavo*, *pendulo*: This is the *Althaea Indica*, *vitis folio*, *flore amplo*, *flavo*, *pendente*, *Indian Marsh-mallows*, with a Vine-Leaf, and a large, yellow, pendulous Flower, of *Herman. Hort. Lugd. Bat.*

Egyptian Ketmia, with a perfumed or Musk-Seed, *Ketmia Egyptiaca*, *semine moschato*: This is the *Alcea Egyptiaca*, *villosa*, hairy *Egyptian Vervain-mallows* of *C. B. Pin.* 317. the *Belmuscus Egyptia*, *Honorio Bello* of *J. B.* 2. 960. and the *Althaea Egyptiaca Moschata*, *Abelmosch dicta*, Musk Marsh-mallows of *Egypt*, called *Abelmosch* of *Morison. Hist. Oxon. Part. 2.* 533.

From a spreading fibrous Root it rises with one large, single, upright Stalk, in its usual Growth exceeding the Measure of two Foot, and from its first Infancy hoary, with a whitish hairy covering, as are its little round Branches; the Leaves are of an unequal Bigness, rough to the Touch, and not only larger than those of the *Bamia*, but likewise cut into deeper Jaggs; the Flowers are of a beautiful golden Yellow, cut into five Segments, so disposed as to represent a Star; they are succeeded by a round Fruit of a black dusky Colour, which encloses small but compact Seeds, somewhat shaped like a Kidney, leaving upon the Tongue a gentle Bitterness, and tri-

striking the Smell with a most exquisite Fragrancy, equal to, if not surpassing, that of Musk; it is called *Abelmosch*, or simply *Mosch*, not *Bel-mosch*, and the Seed with an aspiration *Hab el-mosch*, that is a Musk Grain, by the *Arabians*.

Hairy *American Ketmia*, with a yellow Flower, and a perfumed Seed, *Ketmia Americana*, *hirsuta*, *flore flavo*, *semine moschato*: This is the *Alcea hirsuta*, *flore flavo*, & *semine moschato*, hairy Vervain-mallows, with a yellow Flower, and a Musk Seed, of *Marcgrave*. 45. Edit. 1648.

From the Seed, when sown, there rises first two Leaves, like those of Penny-wort, then a round hairy Stalk, partly green, and partly of a brownish Colour, two Foot high, and thick as a Goose-Quill; the Leaves are round, composed of five Angles, toothed about the Edges, hairy, and somewhat wrinkled, some of them have but three Angles, they are about two Inches in length, and of an equal breadth, and stand upon long hairy Footstalks, green upon one Side, and brownish on the other; from the Centre where the Footstalk is inserted, issue five Nerves, of a brownish Colour at their Origine, running lengthways, with many little interwoven Veins; at the Place whence the Footstalks of the Leaves shoot, there rises one or two shorter Footstalks supporting lesser Leaves, and upon a Footstalk two Inches long stands the Flower, which has no Smell, in Figure and Bigness like that of the Cotton-Plant, of an elegant Texture, and a bright Yellow, with several little yellow Veins traversing it lengthways, the Bottoms of the Segments within are of a dark purplish Colour, as likewise without where they join the Footstalk; in the Centre stands a yellow upright Pointal with five purple Chives; the Flowers open two or three Hours before twelve at Noon, and immediately after contract and die; they are succeeded by a pentagonal Pear-like Fruit, two Inches and a half long, hairy, and internally divided into five seminal Cells, each whereof contains twelve, thirteen, or fourteen Seeds; shaped like a Kidney, greyish without, and slightly channelled or striped, and white within, emitting a most fragrant Perfume, if chewed; the Root is long, white, tough,

and divided into several little Branches and Filaments, deeply penetrating into the Ground, and in length equalling the height of the Plant: *Marcgrave* says, he sowed it about the sixth of April, that it flowered in the end of August, and brought forth Seed plentifully.

Ketmia of *Brasil*, with a Fig-Leaf, and a furrowed, pyramidal Fruit, *Ketmia Brasiliensis*, *folio ficus*, *fructu pyramidato*, *sulcato*: This is the *Quingombo Lustanis*, *Congensibus* & *Angolensibus*, *Quilobo*, according to *Marcgrave*. 31. Edit. 1648. and the *Alcea Americana*, *annua*, *flore albo maximo*, *fructu pyramidali sulcato*, annual *American Vervain-mallows*, with a great white Flower, and a furrowed pyramidal Fruit, in *Commelin's* Description of the rare Plants in the physical Garden at *Amsterdam*. *H. Amstel.* 37. Fig. 19.

Thorny or prickly *Indian Ketmia*, with Leaves so cut as to represent a spread Hand or Fan, *Ketmia Indica*, *aculeata*, *foliis digitatis*: This is the *Alcea Bengalenfis*, *spinosissima*, *acetosa sapore*, *flore luseo pallido*, *umbone purpurascente*, thorny Vervain-mallows of *Bengal*, with a Flower of a pale Yellow, a purplish Boss in the middle, and of an acid Taste like Sorrel. *H. Amstel.* 35. Fig. 18.

Prickly *American Ketmia*, with the largest Flower, of a bright red Colour, *Ketmia Americana*, *aculeata*, *flore amplissimo*, *coccineo*. *Plumier*.

Perennial *Sicilian Ketmia*, with scented Leaves, toothed about the Edges like a Saw, *Ketmia Sicula*, *perennis*, *foliis moschatis*, *crispis*, perennial *Sicilian* Mallows, with curled Musk-Leaves, of *Bocconi*. *Rarior. Plant.* 68.

Common *Ketmia* with little membranous Bladders, *Ketmia vesicaria*, *vulgaris*: This is the *Alcea vesicaria* of *C. B. Pin.* 317. the *Alcea Solissequa*, *multiis Veneta*, Sun-following, called by many *Venice Vervain-mallows*, of *J. B.* 2. 1068. and the *Alcea vesicaria* of *Dodoneus*. *Pempt.* 657.

The Root is of a bright White, but slender and fibrous; the Stalks exceed a Span in length, are round, rough and hairy, as are the Footstalks upon which the Leaves stand, which resemble those of the common Vervain-mallows, they are cut into three cornered Segments, above of a dark greenish Colour, not of so deep a Green

underneath, but more hairy, and of a viscid clammy Taste; the Flowers are smaller than those of the common Vervain-mallows, but more elegantly beautiful, from a yellow inclining to a grassy Colour, but the Bottoms of the Segments are purplish; in the middle stands a Knap or Pointal surrounded with bright yellow Chives, encompassed and covered with a little striped, hairy, membranous Bladder; the Seed or Seed-Vessel is not described, but they are without doubt the same with those of the following Species, which differs but little from this.

African Ketmia, with little membranous Bladders, *Ketmia Vescaria*, *Africana*; *Alcea Vescaria Capitis bonæ Spei*, Hour-Mallows from the Cape of Good Hope, of *Morison. Hist. Oxon. Part. 2. 533.*

In a fertile Soil it rises with a Stalk two Foot high, round, firm, and armed with some few Thorns or Prickles; the Leaves shoot singly at certain intervals, standing upon long Footstalks; they resemble those of the Vervain-mallows, are cut into three remarkable Jaggs, of a dark greenish Colour above, and have their Nerves or Veins covered with short and scarce perceptible Hairs; from the Angles of the Leaves with the Stalk, the Flowers rise upon Footstalks a Hand-breadth in length, they are cut into five Segments of a whitish Yellow; the Bottoms of their Leaves of a dark Purple, with many little *Stamina* or Threads in the middle, supporting yellow Chives; the Edge of each little Segment is externally tipped or streaked with a reddish purple Colour; the Flower-Cup is large, channelled, and divided into five sharp Segments, which before the Flower is blown, and after it is faded, remain closely contracted; when the Flower is decayed, the Cup swells into a great channelled hairy Bladder, which covers a large, oblong, hairy Seed-Vessel, which is of a blackish Colour when ripe, and divided lengthways into five seminal Cells, each whereof contains two Rows of Seeds, from a blue inclining to a blackish Colour when fully ripe, and in shape nearly resembling those of the common Vervain-mallows: The Flower-Cup is encompassed, and as it were railed about with a Circle of sharp-pointed narrow

Leaves; about Noon, the Sun shining bright, especially in a wet Season, the Flower opens, and in an Hour or two afterwards shuts again; the *Venice Vervain-mallows* has spotted Flowers, distinguished with white circular Lines; the *African Vervain-mallows* has purple Flowers, but not so much distinguished with Spots, according to the Observation of *Herman*.

Shrubby *American Ketmia*, with a Mulberry-Leaf, and a purple Flower, *Ketmia Americana, frutescens, mori folio, flore purpureo. Plumier.*

American Ketmia, with a large Leaf, shaped like a Heart, and a variegated Flower, *Ketmia Americana, folio amplissimo cordiformi, flore vario. Plumier.*

American Ketmia, with a large cornered Leaf, and a rough hairy Fruit, shaped like a Shield, *Ketmia Americana, amplissimo folio, angulato, fructu hispido, clypeato. Plumier.*

The Flowers and Leaves of the *Ketmia* or *Indian Vervain-mallows*, may be applied to the same Uses as those of the *Mallows*.

The Seeds of the *Ab-el-mosch*, or *Bamia moschata* of the Shops, are used by the *Egyptians* in their *Caava*, esteemed to strengthen the Head, Heart, and Stomach.

T A B L E XVIII.

G E N U S VII.

Xylon, The Cotton-Plant,

IS a Plant with a Flower A, of one single Leaf, of the expanded Bell-shape, cut into several Segments, from the Bottom whereof rises a hollow pyramidal Tube or Knap C, adorned and loaded, for the most Part, with many Chives; from the Flower-Cup E, the pointal D shoots, which is fixed like a Nail in the bottom Part of the Flower B, and of the Tube C, and is afterwards changed into a roundish Fruit F, divided into four or more seminal Cells G, opening or gaping at the Top H I, and enclosing Seeds K, covered over with, and enwrapped within, that soft ductile Wool L M, commonly known by the Name of Cotton. Its





Its Species are,

Tree-Cotton, *Xylon arboreum*. *J. B.* 1. 346. This is the *Gossypium arboreum*, *caule levi*, Tree-Cotton with a smooth Stalk, of *C. B. Pin.* 340. and the *Gossypium arboreum*, *Gotne M. Segiar*, of *Prosper Alpinus*. *Agypt.* 29. It has a dark purple Flower.

This Tree-Cotton rises to the Height of ten Cubits, with a woody Stem and Branches; the Leaves, when fully grown, are deeply cut into five Jaggs, of which the two lowermost, and the higher or longest are enlarged with a small leafy Excrecence: The Branches whereon they stand are of a violet Colour; the Flowers rise at the ends of the smaller Sprigs, two or three together, upon slender Footstalks, they are of a dark purple Colour, and stand on a broad Husk of two Leaves very much jagged at the Tops, and are deeply cut into five Segments, having in the Middle a stiff reddish Pointal encompassed with five yellow Threads, which are thrust off by the Fruit, which swells into a round Ball or Button, covered over with a hard greenish Skin, which opening when ripe, discloses a Lump of pure white Wool, enclosing several blackish Seeds, of the Bigness of Pepper-Corns, but not so round, lying not in clusters, but dispersed thro' the Lump, singly one in a Place, having a white sweetish Kernel within.

Tree-Cotton, with a yellow Flower, *Xylon arboreum*, *flore flavo*: This is the *Gossypium arboreum*, *flore flavo*, in *Herman's Catalogue of Plants in the Garden at Leyden*.

Tree-Cotton, with a thorny Stalk, *Xylon arboreum*, *caule spinoso*: *Gossypium arboreum*, *caule spinoso*. *C. B.* 430. the *Bambage Indiano* of *Pona*. *Ital.* 37.

Mr. Ray takes this Species to be the Moul-Elavou, or the thorny Cotton-Tree in the *Hortus Malabaricus*. *P.* 3. *T.* 52. *p.* 61. and thus describes it.

'Tis a tall and lofty Tree, exceeding fifty Foot in height, and eighteen in thickness, before it stretches out into Branches; the Wood is soft, brittle, and brownish, covered with a thick, soft, ash-coloured Bark, reddish, and rough within, adorned with

many rigid, black, smooth, and shining Scales, armed upon all Sides with Prickles: The Thorns that shoot near to the Origine of the Trunk fall off in Time, but those upon the higher Branches remain and continue, for which reason 'tis that the Apes never climb those Trees; the Root is of a whitish Colour, thick, fibrous, and covered with a reddish, yellowish and knotty Bark, sharp to the Taste, but of no smell; the Leaves are insipid, and without smell, unctuous when rubbed between the Hands, not unlike the Leaves of the Panja, long, round, smooth, and streaked or striped with green, standing several together, in a circular Disposition, upon Footstalks, knotty at their Rise; the Flowers are odoriferous, a Hand-breadth in bigness, they stand several together at the Extremities of the little Branches, supported by thick Flower-Cups, of a dense Substance, greenish within, and yellowish without, and are cut into five Segments or seeming Leaves, oblong, thick, and of a shining purple Colour, without they are woolly and reflected; in their middle stand many thick, long, and reddish Threads, with black and hooked Chives, in a double Row surrounding a split or divided Pointal, which is the Fruit it self in Embryo; besides, there is observed in the concave Centre of the Flower a bluish pellucid Liquor or Moisture, agreeably sweet and pleasant to the Taste; the Fruit is every Way the same with that of the Panja, except that the Seeds lie disposed in their Cells, not in a triple, but double Row.

It grows every where commonly in *Malabar*; sixteen Years after it is sown it bears Fruit, which it ripens every Year afterwards in the Months of *February* and *March*, and continues fruitful for two hundred Years and upwards.

Herb or shrub Cotton, *Xylon five Gossypium herbaceum*. *J. B.* 1. 343.

It rises with a woody Stalk two Foot high, covered with a reddish, hairy Bark, and divided into several short Branches; the Leaves nearly resemble those of the Vine in shape, are equal to those of the Maple, rough, and stand upon hairy Footstalks, two or three Inches long; the Flowers are of a pale Yellow, tinged

about the Edges and Centre with a beautiful Purple; in shape like to those of the Mallows; they are succeeded by a Fruit enclosed within a rough blackish Husk, big as a Filberd, and when ripe, opening into three or four brittle, spotted, and hollowed Segments, or Partitions, which disclose a Flake of most delicate soft ductile Wool or Cotton, containing within it several Seeds, like small Pease, having a tender Shell, to which the Wool closely sticks, and a white sweetish Kernel; the Fruit hangs upon a Footstalk above an Inch in length, issuing from a thickish Flower-Cup; each of the hollowed Segments into which the Fruit splits, have a middle Partition running lengthways, as if before the Fruit was ripened they had been united and conjoined in its Centre.

It is plentifully sown in Candy, Lemnos, and between Jerusalem and Damascus, where whole Fields are seen of it; and in Cyprus, Malta, and Sicily, where it grows in Plenty, as likewise in the Kingdom of Naples.

It is sown in tilled Grounds in the Spring of the Year, and reaped and cut down in Harvest, as Corn with us; the Ground must be tilled and sown again the next Year, and used in such Sort as we do the Tillage for Corn and Grain; it is a Plant of one Year, and perisheth when it hath perfected its Fruit, as many other Plants do.

American Cotton-Plant, with an oblong, sharp-pointed Fruit, *Xylon Americanum*, *fructu oblongo, acuminato*. Lignon.

The most excellent American Cotton-Plant, with a greenish Seed, *Xylon Americanum*, *præstantissimum*, *semine virescente*. Lignon.

Cotton has many Uses too well known to be here insisted upon, as we see from the Descriptions given; 'tis the Wool which is contained within a kind of brownish Shell or Fruit growing upon a Shrub or Bush; for it is the *Xylon Herbaceum*, the Herb or Shrub Cotton, which furnishes the vast Quantities of that Wool so much used in our Parts of the World; it comes in great Quantities from all the Islands, and the Natives take great Care in cultivating of it; there are several Sorts of Cot-

ton fold, which only differ according to the Countries from whence they come, and the various Preparations made of them; the first is the Cotton in the Wool, that is to say, that which comes from the Shell, from which only we take the Seed; those Cottons come from Cyprus, Smyrna, &c. the second is the Cotton in the Yarn, which comes from Damascus; the Jerusalem Cottons, which are called Bazac's, the best of all that are sold: See more relating to this Subject in *The History of Drugs*. p. 154.

As to the medicinal Uses; the black Seeds are only used in the Shops; they are esteemed pectoral, proper in Asthma's, Coughs, to encrease Seed, consolidate Wounds, to stop Dysenteries, Fluxes or Scourings of the Belly, spitting of Blood, &c. There is an Oil prepared from them, admirable for clearing the Skin of all Spots and Freckles, and to beautify the Face, and has the same Virtues with the Oil of Cokar-Kernels, made after the same Manner by the Natives, especially in the Island of Assumption, from whence almost all the Cokars we now sell are brought; the Wool burnt and held under the Nose to receive the Fumes, cures fits of the Mother, or the Suffocation of the Womb, as 'tis called.

The Flowers are esteemed vulnerary: Pomet says, he has observed one Thing of the Cotton-Flowers, not known to any Authors, or at least not taken Notice of; which is, that the Flowers wrapped up in the Leaves of the same Tree, and baked or roasted over a Fire of burning Coals, yield a reddish viscous Oil, that cures in a little Time old standing Ulcers; he has often experienced it, he says, with very good Success.

The Egyptians use the Wool of the Tree-Cotton, (for the Herb or Shrub-Cotton is not sown with them,) to cleanse and cure all Wounds and Ulcers; it is applied by them too to stop a Flux of Blood; the Mucilage of the Seeds is in frequent use among them in all Burning Fevers, and as beneficial against Poisons, and in all sharp and saltish Rheums or Defluxions.

The Bark of the Moul Elavou or the thorny Tree-Cotton, powdered, and with the Juice of Lemons reduced into the Form of



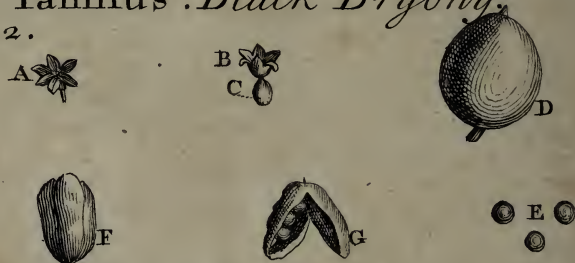
Bryonia Bryony.

Fig. 1.



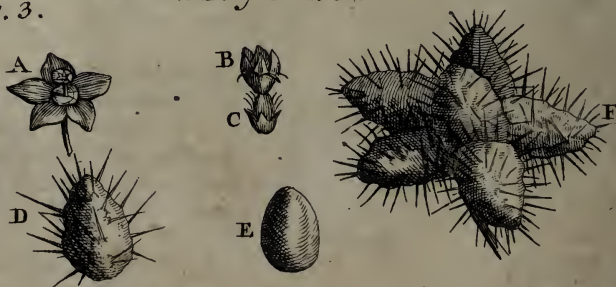
Tamnus .Black Bryony.

Fig. 2.



Sicyoides .

Fig. 3.



of a Liniment, allays all Inflammations, and consolidates fractured Bones: The Bark of the Root is an excellent Emetic; that sweet Moisture or Liquor which stands

collected in the concave Centre of the Flower, administered with the Leaves of Tamarinds, powerfully evacuates all watry Humours by Stool and Urine. Ray.

S E C T. VII.

Of Herbs, with a Flower consisting of one single Leaf, in the Shape of a Bell, and a Flower-Cup changing for the most Part into a fleshy Fruit.

TABLE XIX. Fig. 1.

GENUS I.

Bryonia, Bryony,

IS a Plant, with Flowers of one single Leaf A C, of the expanded Bell-shape, cut into several Segments, and so closely embraced by the Flower-Cup B D, that they cannot be disjoined or separated: Of the Flowers some are barren A, adhering to no Embryo; others fruitful, resting upon the Embryo E, which afterwards changes into a round or oval Fruit F, enclosing roundish Seeds G H: To these Characteristics we must add the Tendrils, with which, as with Hands, the Bryony grasps and mounts upon every adjoining Prop.

Its Species are,

Rough or white Bryony, with red Berries, *Bryonia aspera sive alba, baccis rubris.* C. B. Pin. 397. This is the *Vitis alba sive Bryonia*, White Vine or Bryony of J. B. 2. 143. and the *Bryonia alba* or white Bryony of *Dodoneus.* Pempt. 400. White Bryony.

It has a large white Root, as big as a Man's Arm, divided into several thick Fibres, of a pungent, bitter, and rank Taste; being dried, it appears somewhat like the *Mechoacan* Root, for it has Circles or Rings, but is distinguished from it, in

that it is not of so compact a Substance, but fungous and spongy, and of a bitter unpleasant Taste; the Stalks are of a great Length, slender, channelled, and somewhat hairy, furnished with Tendrils, by the help whereof it widely spreads and diffuses it self, and climbs upon every adjoining Prop; the Leaves resemble those of the Ivy, are angular, rough, and hoary, of a greenish Colour, or waved with some whitish Lines traversing them; the Flowers shoot out several together upon branchy Foot-stalks, they are roundish, divided into five Segments, of a whitish Colour inclining to a Green; the Berries are round, about the Bigness of a Pea, first green, then red, enclosing several round Seeds, besmeared with a Sort of Slime; it grows every where about Hedges and Woods, but especially in cold and temperate Climates.

White Bryony, with black Berries, *Bryonia alba, baccis nigris.* C. B. Pin. 297. This is the *Bryonia nigra*, the black Bryony of *Dodoneus.* Pempt. 399.

This Species differs nothing from the first, but in the Colour of its Roots and Berries: The Roots of this are of a pale Yellow, or Box-Colour on the Inside, and the Berries black when ripe, whereas those of the other are within of a Colour from a white inclining to a yellowish, and the Berries red.

Bryony of *Zeylan*, having Leaves cut into deep Jiggs, and a large Fruit, *Bryonia Zeylanica, foliis in profundas laciniis divisis, fructu majori.* This is the *Balsamina scandens*

feu *Momordica Indica*, fœtida, *Bryonioides fructu levi*, majori, rubro. *Paradis. Bat.* 103.

Bryony of Zeylan, with Leaves cut into deep Jaggs, and a small Fruit, *Bryonia Zeylanica*, foliis in profundas lacinias divisis, fructu minori: This is the *Bryonia Zeylanica*, foliis profundè laciniatis, or Bryony of Zeylan with Leaves deeply jagged, in *Herman's Catalogue of the Plants in the Garden at Leyden*.

Smooth African Bryony, with Leaves cut into deep Jaggs, and a yellow Flower, *Bryonia Africana*, glabra, foliis in profundas lacinias divisis, flore luteo. *Oldenland.* This is the *Bryonia Africana*, glabra, foliis profundè sectis, tenuioribus, or smooth African Bryony, with thin slender Leaves, deeply cut, in *Herman's Batavian Paradise*.

Jagged African Bryony, with a tuberous Root, and grassy Flowers, *Bryonia Africana*, laciniata, tuberosa radice, floribus herbaceis, in *Herman's Batavian Paradise*.

Clustered Bryony, with Fig-Tree Leaves, *Bryonia racemosa*, foliis ficulneis. *Plum.* 83.

American Bryony, with a red Olive-Fruit, *Bryonia Americana*, *Olivæ fructu rubro.* *Plumier.*

Creeping, American Bryony, with a smooth, cornered Leaf, *Bryonia Americana*, repens, folio angulato, *levis*.

Creeping American Bryony, with a rough, cornered Leaf, *Bryonia Americana* repens, folio angulato, *aspero*.

Bryony of Canada, with an angular Leaf, and a black Fruit, *Bryonia Canadensis*, folio angulato, fructu nigro: This is the *Cucumis parva*, repens, *Virginiana*, fructu minimo, or small creeping *Virginian Cucumber*, with the smallest Fruit, of *Banister*, according to *Pluknet. Phytog. Tab.* 85. *Fig.* 5.

Spotted Bryony of Candy, *Bryonia Cretica maculata.* *C. B. Pin.* 297.

It has a long Root, but not so big as the common Sort, and in this different, that it wants the circular Lines or Rays; the Leaves are smaller than those of the common Bryony, marked or streaked with white Lines or Spots: The Flowers are larger, and hang upon long Footstalks; each Flower is succeeded by a semi-circular Fruit, divided at the Top into two Parts, and appearing as if it were a double Berry, wherefore it was called *Dicoccos*; it is green at

first, but red when ripe, and contains two Seeds; in every Thing else it agrees with the common Sort; according to *Ray*, this is the *Bryonia alba maculata*, or white, spotted Bryony, of *J. Bauhin*; the *Cretica Dicoccos*, Bryony of Candy, with double Berries, of *Parkinson*; and the *Bryonia Cretica* of *Pona*.

The name *Bryonia*, is derived from the Greek word *βρύω*, signifying to shoot, spring, or bud, because 'tis a Plant of a luxuriant Growth.

'Tis the first Species, the *Bryonia aspera*, five alba, baccis rubris, of *C. B. &c.* which is of common Use; the Leaves of this Plant are insipid, glutinous, and give no tincture of Red to the blue Paper; the Root tinctures it deeply, it is bitter, and of a most unpleasant Smell and Taste; which gives ground to conjecture that the Acid of the Salt-Armoniac which is predominant in this Plant, lies more disengaged in the Roots than in the Leaves, where it is fettered in a greater Quantity of Sulphur: By a chymical Analysis the Roots yield much fetid Oil, a large Quantity of acid Liquor, and a considerable Quantity of volatile concreted Salt: The Roots, the Tendrils, and the Seeds of Bryony are powerfully purgative, and remove the most obstinate Obstructions; wherefore it is, that this Plant is successfully used in the Dropsy, Gout, Epilepsy, Asthma, the hysteric Passion, Palsy, Vertigo, and in most chronical Distempers; the Root in Powder is given from ʒi to ʒii; the Juice from ʒii to ʒss, and the Decoction from ʒss to ʒl or ʒlss. but in what manner soever this Root is used, it is good to correct it with Cream of Tartar, or vegetable Salt: *Arnaud de Villeneuve* relates, that he cured an Epileptic Person with the Juice of the Bryony-Root, in the Space of three Weeks; and *Matthiolum* affirms, he saw a Lady perfectly cured of the hysteric Passion, by a Decoction of an Ounce of this Root in white Wine, which she drank every eighth Day for a Year together. The Juice is obtained from the Roots of Bryony after this Manner; in the Spring lay open the Ground round the Root, cut off the upper Part, hollow that which remains in the Ground, then cover it with the Part cut off, and cover the whole

whole with Earth: next Morning you will find the Cavity of the hollowed Part filled with Juice, which being given to the Quantity of a Spoonful, purges gently downwards, and removes the Obstructions of the Liver, Pancreas, or other Parts of the lower Belly. An Extract and a *Facula* is likewise prepared from this Root; to obtain the Extract, slice the Root small, infuse it in Wine, strain the Infusion and thicken it upon the Fire: The *Facula* is nothing else but that mealy earthy Part, mixed with a little Sulphur and Salt, which settles and falls to the Bottom of the Vessel while the Juice is depurating, and the Juice being decanted, is taken out and dried: This *Facula* is used in the hysteric Pills of *Charras*; this Root, externally applied, dissolves scrophulous Tumours; the fresh Root bruised, mixed with Linseed-Oil, and applied hot, gives wonderful Relief in the sciatic Pain; the Application must be frequently repeated, till the whole morbid Matter transpires; it no less effectually cures all livid Contusions.

Dioscorides, Lib. 4. cap. 176. informs us, That the tender Shoots of the ἀμπελος λευκή or white Bryony, were usually eaten in the Spring to purge the Belly, and provoke Urine; the outward Application of the Leaves, Fruit and Root, by reason of that sharp Quality they are possessed of, cleanses old filthy Sores, fretting and running Cankers, Gangrenes, and Tettors; the Root clears the Skin from all black livid Spots, Freckles, Morpew, &c. Bruised and applied to any Place where the Bones are fractured, it draws out the Splinters; internally used, besides the Virtues already enumerated, *Dioscorides* farther tells us, that it provokes the Courses, brings away the dead Child and After-Birth, cleanses the Womb, if Women sit over and receive the Fumes of the Decoction, but that it is apt to cause Abortion; that it cleanses the Reins and Kidneys, opens the Obstructions of the Spleen, waists and consumes the hard Swellings thereof, &c. sometimes he says it disorders Reason, which is not at all disagreeable with modern Experience, for this Root is called by the Peasants Madnip, which if they happen to eat thro' inadvertency in too great a Quantity, it turns

them frantick; yea, they often run the Risque of Death; but when dried and duly prepared, it is of very good use in Medicine.

TABLE XIX. Fig. 2.

GENUS II.

Tamnus, Black Bryony or our Lady's Seal,

IS a Plant with monopetalous Flowers, of the expanded Bell-shape, and cut into several Segments: Of the Flowers some are barren A, adhering to no Embryo; others fruitful B, adhering to the Embryo C, which is afterwards changed into a Berry D, for the most Part of an oval Figure, having a thin membranous Husk or covering FG, and enclosing roundish Seeds E: The *Tamnus* or black Bryony has no Tendrils.

Its Species are,

Cluster'd black Bryony, with a small Flower of a pale yellow Colour, *Tamnus racemosa*, flore minore luteo-palescente: This is the *Bryonia levis* sive *nigra racemosa*, smooth or black clustered Bryony of C. B. Pin. 297. The *Vitis nigra quibusdam* sive *Tamnus Plinii folio Cyclamini*, the black Vine or the *Tamnus* of Pliny, with a Sowbread-Leaf, of J. B. 2. 147. and the *Vitis sylvestris* of *Dodonens*. Pempt. 401.

The Root is large, thick, tuberous, almost round, black without, and white within, lying very deep in the Ground and of a sharp pungent Taste when fresh and green, but not in the least disagreeable or bitter; when dried it appears of a moist white Substance, but without the circular Lines or Rings of the Bryony, nor is it of a rare and fungous, but compact Substance, wherein it resembles the *Mechoacan* Root; it sends up several slender Twigs or Stalks, which twine round every Prop, but have no clasps; the Leaves rise in an alternate Order upon long Footstalks, in shape very much like the Sowbread-Leaf, but often sharper-

sharper-pointed, and much smaller, upon both Sides of a bright shining Green, with many Nerves, and of a viscid Taste, the Flowers rise from whence the Footstalks of the Leaves shoot, they stand together in Clusters, are divided into six Segments, of a Colour from a Yellow inclining to a Green: They grow upon the Tops of the Berries upon short slender Footstalks, or rather upon the Embryo or infant Fruit, and decay before it is ripened; they are succeeded by Clusters of red or brownish Berries: It is found commonly near to Hedges.

Black Bryony bearing single Berries, with a greater white Flower, *Tamnus baccifera, flore majori albo*: This is the *Bryonia levis sive nigra, baccifera* of C. B. Pin. 297. and of J. B. 2. 149.

This Species differs from the first and common in this, that the Common has a smaller Flower, and bears its Berries in Clusters, but this Sort has a larger Flower, and bears its Berries single, upon single and proper Footstalks; the Colour of the Flowers too is different.

It is found in the Woods near to *Hunningen*; flowers in *July*, and ripens its Fruit in the end of *September*.

Black Bryony of *America*, with a Citrull-Leaf, *Tamnus Americana, anguria folio*. *Plumier*.

Black Bryony of *Candy*, with a Leaf cut into three Divisions, *Tamnus Greeca, trifido folio*.

As to the Virtues of this Plant, Botanists don't agree; *Pená* and *Lobel* affirm, that the Root is powerfully diuretic; bruised and applied to Conusions, it cures them in a little Time. *Tourn. Hist. des Plantes, aux environs de Paris*.

It cuts and attenuates the tough viscid Phlegm, and may consequently be proper in Distempers of the Lungs and Breast. *Caspar Hoffman* says, he never found any purgative Quality in it; and *Lister* affirms, that tho' he frequently administred both the Root in Substance, and its Extract in a large Dose, yet he could never discover that it operated either by Stool or Vomit, or by any other sensible Evacuation.

The Powder of the Root reduced into the Form of a Cataplasim with Vinegar

and Cow-Dung, asswages gouty Pains. *Ray Hist.*

TABLE XIX. Fig. 3.

GENUS III.

Sicyoides,

IS a Plant with monopetalous Flowers, of the expanded Bell-shape, cut into several Segments: Of the Flowers, some are barren A, adhering to no Embryo; others are fruitful B, growing or resting upon the Embryo, or first Rudiment of the Fruit C, which is afterwards changed into a Fruit D, like that of the Almond-Tree, fleshy, prickly, collected into a little Head or Button, and under a thin Husk or Skin encloses one single Seed E.

Its Species are,

American Sicyoides, with a prickly Fruit, and angular Leaves, *Sicyoides Americana, fructu echinato, foliis angulatis*: This is the *Cucumis Canadensis, monospermus, fructu echinato*, the Cucumber of Canada, enclosing one single Seed, and bearing a prickly Fruit, in *Herman's Batavian Paradise*; and the *Bryonioides Canadensis, villosa fructu, monospermus*, a Plant of Canada, resembling the Bryony, having a rough Fruit, containing one solitary Seed, of the same Author.

American Sicyoides, with a prickly Fruit, and jagged Leaves, *Sicyoides Americana, fructu echinato, foliis laciniatis*. *Plumier*.

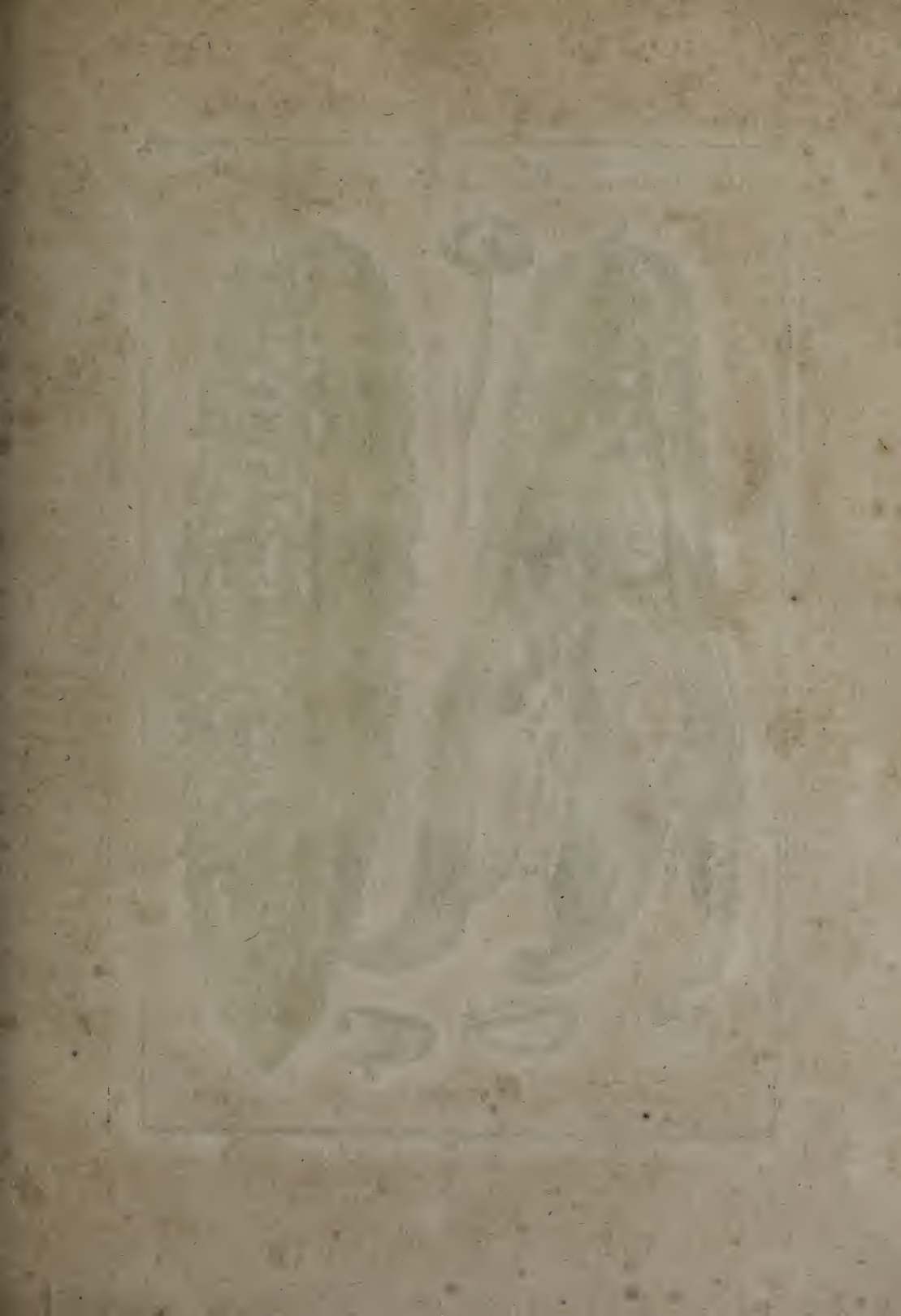
The Appellation imports a cucurbitaceous Plant, for the Greek word *σικυος* signifies a Cucumber, and *σικωα* a Gourd.

TABLE XX, XXI.

GENUS IV.

Momordica, Male Balsam-Apple,

IS a Plant with a Flower consisting of one single Leaf, of the expanded Bell-shape, so deeply cut, that it seems composed of five



Momordica. *Male Balsam Apple.*





Momordica. *Male Balsam Apple.*



five distinct *Petala* or Leaves: Of the Flowers, some are barren A, not shooting from any Embryo; others fruitful B D, growing upon, or rising from the Embryo C I, which is afterwards changed into a Fruit, of a Shape sometimes more E, sometimes less tapering I N, hollow F, and fleshy; it usually opens by vertue of a natural elasticity G O, and throws its Seed L P wrapped up within a Husk or thin membranous Coverings K R M Q; they are flat, and have their Rim or Edge for the most Part indented.

Its Species are,

Common Male Balsam-Apple, *Momordica vulgaris*: This is the *Momordica* of *Cassiope Durantes*. 61. The *Charantia* of *Dodonæus*. *Pempt.* 670. The *Balsamina rotundifolia*, *repens*, *five mas*, Male Balsam-Apple, round-leaf'd, and creeping, of *C. B. Pin.* 306. and the *Balsamina Cucumerina* of *J. B.* 2. 251. Male Balsam-Apple, or Apples of *Jerusalem*.

From a small fibrous Root, that lives but five Months, it sends up several slender Stalks two or four Foot high, channelled and angular, which by help of their Claspers or Tendrils, twine round the Poles that are set to support it; the Leaves are like those of white Bryony, or rather like those of the Vine, but smaller, and more exquisitely cut, of an agreeable Green, altogether smooth, of a sharp and bitterish Taste, and hang upon Footstalks an Inch, or an Inch and a half in length; from the Angles of the Leaves with the Stalk the Flowers rise, they are of a whitish Yellow, have yellow Threads within, and are succeeded by a Fruit, oblong and tapering, or shaped like an Egg, much like a Cucumber, rough, with such like little swelling Knobs or Excrescencies, red when ripe, or as *Lobel* says, both the external Surface and Pulp is of a shining Purple; the Seed is like that of the Citrus, brownish, flat and rough.

Of the Place of its native Growth we are uncertain; it grows from the Seed better in *Italy* and the warmer Climates, than in *Germany* or *England*, where it flowers

for the most Part in *August*, and never, or but rarely, brings its Fruit to Maturity.

Male Balsam-Apple of *Zeylan*, with Vine-Leaves, and a short Fruit, *Momordica Zeylanica*, *pampinea fronde, fructu breviori*: This is the Pavel of the *Hortus Malabaricus*. 8. 18.

Male Balsam-Apple of *Zeylan*, with Vine-Leaves, and a longer Fruit, *Momordica Zeylanica*, *pampinea fronde, fructu longiori*: This is the *Pandi Pavel* of the *Hortus Malabaricus*. 8. 17. and the *Balsamina cucumerina*, *Indica, fructu majore, flavescente*. *H. Amstel.* 103.

As it remains obscure and dubious, whether the Flower of the *Momordica* or Male Balsam-Apple be monopetalous, deeply cut to the Centre, or composed of five distinct Leaves, I therefore determined not to separate it from the other cucurbitaceous Plants; it differs from the Cucumber in this, that its Fruit contains but one seminal Cell, opening and cleaving asunder by a natural elastic Force; it is commonly confounded with the *Balsamina*, but differs very much from that Plant.

The *Momordica vulgaris*, or the Male Balsam-Apple, has many virtues ascribed to it: It cools and dries, is vulnerary, and asswages Pain, especially that of the Piles; the Leaves applied to fresh Wounds are said to heal them; powdered and taken in Wine, they are esteemed to cure the Cholick, and greatly beneficial in Ruptures, Convulsions, &c. There is an Oil or Balsam prepared from the Fruit by infusing it, having first taken out the Seeds, in the Oil of Olives or Sweet Almonds, and exposing it to the Sun's Heat, or digesting it in *Baino*, or in *Horic-Dung*; this Oil or Balsam thus prepared, has many excellent Virtues; it prevents the Inflammation of Wounds, and speedily cures and consolidates them; injected with a Syringe, it heals Ulcers or Inflammations in the Womb, and cures the Swellings and Ulcers in Womens Breasts, prick'd or wounded Nerves, burnings and scaldings, the Piles, &c. See *Bates's Pharmacop.*

Before that *Caspar Bauhin* published his *Pinax*, *Dale* says he knew but two botanical Authors that mentioned the *Momordica*;

mordica; after him *Schroder*, *Chabraus*, *Hermanus*, *Volckamer*, and *Tournefort*; but that none of them under that Appellation meant the *Balsamina mas*; and he adds, that no Author, to his Knowledge, ever called it so; nor do the Virtues ascribed by *Bates*, to the Balsam of the *Momordica*, disagree with those of this Plant. *Dale*. *Supp.* p. 138.

TABLE XXII.

GENUS V.

Cucumis, *Cucumber*,

IS a Plant with Flowers of one single Leaf, of the expanded Bell-shape, cut into several Segments; of which some are barren *AB*, not adhering to any Embryo; others fruitful, growing upon the Embryo *C*, which is afterwards changed into a fleshy Fruit *DE*, for the most Part round, and divided into three or four seminal Apartments *FG*, enclosing oblong Seeds *HI*.

Its Species are,

Common Cucumber, with a Fruit of a yellowish Colour when ripe, *Cucumis sativus*, *vulgaris*, *maturo fructu subluteo*. *C. B.* *Pin.* 310. This is the *Cucumis vulgaris viridis*, common green Cucumber of *J. B.* 2. 245. and the *Cucumis vulgaris* of *Dodonæus*. *Pempt.* 662.

The Roots are strait, and adorned with many white fibrous Capillaments; the Twigs or Stalks are thick and hairy, lying stretched upon the Ground; the Leaves are disposed in an alternate Order, every Way a Hand-breadth or two in Measure, rough to the Touch, cut into Corners like the Ivy-Leaf, and toothed about the Edges; they are larger, broader, and more angular than those of the Musk-Melon: From their Bosom the Tendrils and Flowers shoot; the Flowers are of a pale Yellow, cut into five Segments, and in the Night-time contract and wither; the Fruit is of an oblong Figure, tapering into a Point at both ends, and of a green or white Colour without,

(the Green, when fully ripe, turns to a yellowish Colour) about half a Foot in length, cornered, and pimpled upon the external Surface, with several little blackish Swellings or Excrescencies; the Rind is tender, the Pulp somewhat firm and hard, white, and transparent; the Seed is long and flat, having a milky Pith or Kernel of a most agreeable Taste, and of great Use in the Shops.

Common Garden-Cucumber, with a Fruit of a white Colour when ripe, *Cucumis sativus*, *vulgaris*, *maturo fructu albo*. *C. B.* *Pin.* 310. This is the *Cucumis vulgaris albus*, common white Cucumber of *J. B.* 2. 245.

Wreathed or winding Cucumber, or Adders Cucumber, *Cucumis flexuosus*. *C. B.* *Pin.* 310. *Cucumeres longissimi*, the longest Cucumbers. *J. B.* 2. 247. *Cucumis oblongus*. *Dodon.* *Pempt.* 662.

This winding or Adders Cucumber, is according to the Testimony of *Lobel*, altogether like to the common Sort, in its Stalks, Leaves, and Tendrils, but *Ray* says he has observed, that its Leaves are not so rough, that some of them are roundish, very little jagged or cornered, and some more so; the Fruit is long, wreathing and winding it self into Spires like a Serpent, white, and channelled or streaked, having a white Pulp, and Seeds of the same Colour, and of the same Taste with the common Sort.

Matthioli affirms, upon the Authority of *Pliny*, That the Shape of the Fruit of this Species is entirely owing to art and not to nature; that he has seen it, when yet flowering, put into a long hollow Mould, wherein it has stretched unto a prodigious Length, and that the Fruit produced from the Seed of this so moulded, fashioned it self into a serpentine Form; and ever afterwards retained this artificial Figure, which is what *Pliny* however does not assert; yet notwithstanding, *Matthioli*'s Opinion confirmed by *Dodonæus*, *J. Bauhin* says, he dares affirm this Species to be different from the Common, and that the Shape of the Fruit is altogether the Work of Nature.

Wild Cucumber, called As-Cucumber, *Cucumis sylvestris*, *Asininus dictus*. *C. B.* *Pin.* 314. This is the *Cucumis sylvestris*, *sive Asininus*

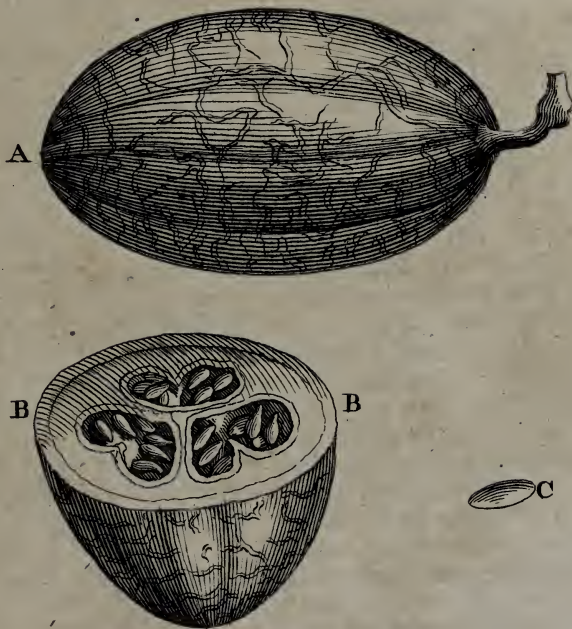




Cucumis . *Cucumber* .



Melo. *Musk-Melon* .





ninus, of *J. B.* 2. 248. and the *Cucumis sylvestris* of *Dodonæus*. *Pempt.* 663.

It has a Root a Foot long, white, thick, with some few Off-sets, and is of a bitter and nauseous Taste: The Leaf in some manner resembles that of the Melon, but is not so much infected, nor so angular, stretching out into a Point; softer than those of the common Cucumbers, and more hoary, or of an ashy Colour, especially underneath; thicker, and more rough, hanging upon long and hairy Footstalks, which shoot from the round, striated, and rough Twigs of the branchy Stalks: The Flowers are very small, and have but one Leaf cut into five Segments; from a white grassy Colour inclining to a paler Yellow, with Chives of a deeper Colour in their Middle: The Fruit is about two Inches in length, long, and roundish, or of an Olive shape, having its Surface armed with several little short Prickles, and of a dark green Colour; it is distinguished into several Apartments, which contain a certain slimy Juice, extremely bitter, with long, blackish, and smooth Seeds; when ripe, if but gently touched, it throws out its Juice and Seeds with such Violence, that if they chance to strike the Face, they leave a smarting Pain for some Time afterwards; whence, as *Gerard* tells us, it has been called of some *Noli me tangere*; it grows in hot Countries high to the Road-sides.

Wild Cucumber, with a cut and cornered Leaf, *Cucumis sylvestris*, *folio sinuato & dissecto*.

Round-leaved Egyptian Cucumber, *Cucumis Egyptius rotundifolius*. *C. B.* *Pin* 310. This is the *Cucumis Egyptius Chate* of *J. B.* 2. 248.

Late Garden Cucumber, with a Fruit rough or napped over with a Down, *Cucumis sativus & serotinus fructu villosa*.

As to the physical Uses; the Seed of the common manured, or Garden Cucumber, with a yellow or white Fruit, is one of the four greater cold Seeds; it cools, cleanses, opens, and is diuretic; of frequent use in Emulsions, to allay and remove all inflammatory Distempers of the Reins and Bladder; and where 'tis requisite to abate the preternatural Motion of the Humours, as in Pleuresies, &c. The Flesh or Pulp of the

Fruit is used as a Psool, but this and other Uses of the Cucumber are so vulgarly known, that all enlargement would be superfluous.

The *Cucumis sylvestris*, *Afininus dictus*, *C. B.* Wild or Ais-Cucumber, purges violently, kills Worms, and opens all manner of Obstructions in the Parts. By a chymical Analysis it yields little or nothing of an acid, but a large Quantity of sharp Liquors, which give a milky Colour to the Solution of sublimate Mercury: It contains too an urinous Spirit, a volatile Salt, Earth, and a fixed Salt.

There is a Medicine prepared from the Juice of the Fruit of the wild Cucumber, called *Elaterium*, which is nothing else but the *Facula* of the Juice, and is prepared after the same Manner as other *Facula's*: This is endowed with a strong purging Faculty, and powerfully expels watery Humours, and operates violently both by Stool and Vomit; besides, it provokes the Courses, and kills the Birth in the Womb, whence it is but rarely used, being not unjustly suspected of some uncommon Malignity; it was very much used in old Times, and frequently prescribed by *Hippocrates*, *Theophrastus*, *Dioscorides*, *Pliny* and *Galen*; they approved of it best when it was old, of a greenish Colour, resembling that of the Plant, light, very bitter, and easily inflammable, and is still in use at this Time: As to the Colour, Authors vary, some will have it green, some white, others of a whitish Green: *Parkinson* says he has prepared both the Green and the White mentioned by *Dioscorides* and *Mesue*; that that which was obtained by Expression was of a green Colour, and remained moist for a great many Years, after it had been dried, contracting new Moisture from the ambient Air: But that which was made from the Juice distilling without pressure from the cut Fruit, was of a white Colour when dried, retaining both its Colour and Siccity, unless exposed to the moist Air, or kept in a moist Place; the Green, he says, is not so strong a Purgative as the White, and works with less violence upwards and downwards; of all Juices it is the most lasting and durable; for if we may rely upon the Authority of *Theophrastus*, it re-

tains its cathartick Powers after it has been kept above a hundred Years; but *Dioscorides* approves of it only from two Years to ten, and *Aegineta* is of Opinion, that it is not good after it has been kept above one Year: Authors too differ as to the Dose, it is prescribed by some from gr. VI to $\mathfrak{B}$, by others from $\mathfrak{B}$ to $\mathfrak{I}$; yea, from $\mathfrak{I}$ to $\mathfrak{z}$. however it is to be used with great Caution and Discretion, and not without its Correctives.

TABLE XXII.

GENUS VI.

Melo, *Musk-melon*,

IS a Plant, with Flowers of one single Leaf, of the expanded Bell shape, cut into several Segments, bearing an entire Resemblance to those of the Cucumber; of the Flowers, some are barren, not adhering to an Embryo; others fruitful growing upon the Embryo or infant Germ, which is afterwards changed into a Fruit, for the most Part of an Oval-shape A, smooth or wrinkled; and divided into three feminal Apartments B, which seem to be cut into two Parts, and enclose oblong Seeds C.

Its Species are,

Common Musk-melon, *Melo vulgaris*, C. B. Pin. 310. *Melones*, J. B. 2. 242. *Melo five Melopepo vulgò*, *Cucumis Galeni*. *Dodonæus*. *Pempt.* 663.

It spreads along the Surface of the Ground with long and rough viny Stalks, adorned with Leaves, rough, and cornered, not so large as those of the Cucumber, and less angular, for in Comparison they may be said to be round: From the Bosom of the Leaves the Flowers and the Tendrils shoot; the Flowers are yellow, like those of the Cucumber, and are succeeded by a Fruit somewhat hairy at first, deeply ribbed and furrowed, oblong, yet sometimes contracted into a rounder Shape, it varies in its Bigness, being found sometimes larger, sometimes smaller: Upon its Surface

it has many winding circling Lines, as if were Moth-eaten, imitating a sort of Network, and is of a green and ash Colour the Bark or Rind is harder than that of the Cucumber: The Pulp or inner Substance when ripe, is of a faint yellow Colour moist, when too ripe dissolving into Water, of a most agreeable Taste, smelling sometimes like Musk; its Middle or Centre is filled by a mucilaginous Substance wherein the Seeds lie buried, smaller than those of the Cucumber, white, juicy, and very numerous; the Fruits differ much not only in the Colour of the Shell or Rind, of the Pulp, in Taste and smell, but also in Shape.

Great Musk-melon, with a green smooth Bark, and a small Seed, *Melo magnus*, *corticis virente*, *levi*, *semine parvo*. J. B. 2. 244.

Spanish Musk-melon, *Melo Hispanicus*. J. B. 2. 244. *Taber. Icon.* 468. It differs from the first in bigness only.

Small round Musk-melon, *Melo rotundus*, *parvus*. C. B. Pin. 311. This is the *Melo Moschatellinus*, *rotundus*, *parvus*; & *pyriformis* of J. B. 2. 244. and the *Melo Saccharinus* or Sugar-Melon of *Tabernemontanus* *Icon.* 469.

The Fruit is round, and big as that of the *Coloquimida*, smells like Musk, and is of a most delicate agreeable Taste.

Tapering Musk-melon, *Melo turbinatus*. J. B. 2. 244.

Musk-melon, with a reticular or net-like Work, *Melo reticulatus*. J. B. 2. 244.

The smaller Egyptian Musk-melon, *Abdelavi*, *Melo-Egyptius minor Abdelavi*, in the Catalogue of Plants in the Garden of Padua published by *Georg. à Turre*.

This Plant, *Alpinus* says, differs not much from the *European* sorts, but bears an oblong Fruit, sharp at the Extremity, and very thick in the Middle; it is not of a pleasant Taste, being of all others the most insipid, and having a softer Pulp; the Seeds are esteemed much more cooling than those of the other Sorts, and as they much surpass them in this Quality, so they are most commonly used, and the others undervalued.

Veslingius says, That the Fruit at that part where it is fixed to its Branch, is first crooked



crooked into a snaky Spire or Wreath, that from thence by Degrees it swells into a large Belly, and gradually tapers and lessens again towards the other Extremity; that it is sometimes found slightly furrowed lengthwise, has a soft slender Bark, of a reddish brown Colour when the Fruit is ripe.

Melo serotinus, & *diu durans*, *fructu parvo, striato, globofo*, late Musk-melon, with a small, chanelled, and round Fruit.

Tho' the Musk-melon is commonly distinguished from the Cucumber by its rounder Leaves, and the pleasant and agreeable Taste of its Fruit, yet the external Habit or Face of the Plant ought rather to determine the Difference, and is more to be considered; for *Melo insipidus*, or *Melo foliis angulatis*, would be no improper Appellation.

It borrowed its Name, as is thought, from the Greek word *μηλον*, which signifies an Apple.

The Seed of the common Musk-melon is one of the four greater cold Seeds; and is used in Emulsions after the same Manner with the others, and in the like Cases, viz. in all Inflammations, Distempers of the Liver, Reins and Bladder, in a Cough, Consumption, &c. An Oil is likewise drawn by Expression from this and the other greater cold Seeds, which is said to beautify the Complexion.

TABLE XXIII.

GENUS VII.

Pepo, Pumpkin,

IS a Plant with Flowers A, of one single Leaf, of the expanded Bell-shape, cut into several Segments, of which some are barren, not adhering to any Embryo; others fruitful, growing upon an Embryo or infant Germ, which is afterwards changed into a Fruit B, of an oblong or round Shape, fleshy, found sometimes with a hard Rind, rugged or uneven, with little Knobs or Risings, and hollow; often divided into three Parts C, enclosing flat Seeds D, that are edged or rimmed about

as it were with a Ring, and fixed to a spongy Placenta.

Its Species are,

Oblong Pumpkin, *Pepo oblongus*. C. B. Pin. 311. This is the *Pepo major*, *oblongus*, the greater oblong Pumpkin of *Dodonæus*. *Pempt.* 665.

Common Pumpkin of Ray. *Hist.* 639. This is the *Cucurbita foliis asperis*, five *Zuccha flore luteo*, the Gourd with rough Leaves, or *Zuccha* with a yellow Flower of *J. B.* 2. 218. and the *Cucurbita major*, *rotunda*, *flore luteo*, *foliis asperis*, the greater round Gourd, with a yellow Flower, and rough Leaves of C. B. Pin. 312.

It spreads widely, with long viny Stalks, which are chanelled, somewhat hollow, about the thickness of a Thumb, and rough, climbing upon any Prop that stands near by Means of their winding Tendrils: The Leaves are of a dark shining Green, toothed like a Saw round the Edges, and rough, hanging upon solid Footstalks a Span in length, somewhat chanelled, and armed with little Prickles; they are larger and firmer than those of the white flowered Gourd: The Flowers have scent and smell, are within of a Saffron-colour, and downy, upon the Outside they incline from a Saffron to a grassy Colour, having several little grassy Ribs and Veins, and a short hairy covering; the Chives, which stand in the middle of the Flower, represent the Hoof of a cloven-footed Animal; the Fruit varies in shape, colour and bigness; for it is either long, flat, round, or pyramidal, having a hard, and, as it were, a lignous Rind, of a green or dark green Colour, spotted with white, or striated, and a soft, white, and sweetish Pulp, not altogether so insipid as that of the white flowered Gourd.

Round Pumpkin, shaped like an Orange, *Pepo rotundus*, *Aurantii formâ*. C. B. Pin. 311. *Cucurbita Aurantii formâ*. *Eyft.*

Pumpion with a Fruit shaped like a hand Ball, *Pepo fructu pilâ palmarie formâ*: This is the *Cucurbita pilâ palmaria non multo major*, *rotunda*, of *J. B.* 2. 218.

Pumpion, with a small spherical Fruit, *Pepo fructu minimo*, *sphærico*: This is the

Cucurbita aspera, minima, spherica, crocea, variegata, of *J. B.* 2. 223.

Pumpion with a roundish and variegated Fruit, *Pepo fructu subrotundo, variegato*: The *Cucurbita medio-crocea*, of *J. B.* 2. 222.

Pumpion with a tapering Fruit of various Colours, *Pepo fructu turbinato, variegato*: The *Cucurbita aspera, mediæ magnitudinis, turbinata, variegati coloris* of *J. B.* 2. 222.

Pumpion with a tapering Fruit, of a whitish Colour: The *Cucurbita turbinata, major, alba* of *J. B.* 2. 222.

Pumpion with a tapering Fruit, of a yellowish Colour, *Pepo fructu turbinato, subcrocea*: The *Cucurbita aspera, turbinata, subcrocea*, of *J. B.* 2. 223.

Pumpion with the smallest tapering Fruit, *Pepo fructu minimo, turbinato*: The *Cucurbita aspera, minima, turbinata, pallida*, of *J. B.* 2. 223.

Pumpion with a small Fruit, shaped like a Pear, *Pepo fructu parvo, pyriformi* The *Cucurbita aspera, pyriformis, parva, alba*, of *J. B.* 2. 223.

Pumpion with an oval Fruit, of a yellowish Colour, *Pepo fructu ovato, flavescens*: The *Cucurbita aspera, ovalis, flavo colore*, of *J. B.* 2. 223.

Another Pumpion with an oval Fruit, of a yellowish Colour, *Pepo fructu ovato, flavescens, alter*: The *Cucurbita aspera, pugillaris, ex rotundo oblonga*, of *J. B.* 2. 223.

Pumpion with an oval Fruit, diversly coloured, *Pepo fructu ovato, variegato*: The *Cucurbita ovalis ferè, variegata, parva*, of *J. B.* 2. 218.

The Seed of the Pumpion is one of the cold Seeds, possessed of the same Virtues with the others, employed after the same Manner, and applied to the same purposes, but is seldom used.

TABLE XXIV.

GENUS VII.

Melopepo.

THE *Melopepo* differs from the other cucurbitaceous Plants, in its Fruit A, which is roundish, fleshy, streaked, angu-

lar, and for the most part divided into five Parts B, enclosing flat Seeds C, adhering to a spongy Placenta.

Its Species are,

Melopepo compressus, C. B. Pin. 312. Tabern. Icon. 470. This is what *J. Bauhin* in his 2 Vol. p. 226. calls *Cucurbita* genus, sive *Melopepo compressus* alter *Lobelio*, a kind of Gourd, or *Lobel's* second flat-bottomed *Melopepo*.

Melopepon with a great white Fruit, *Melopepo fructu maximo, albo*: The *Cucurbita aspera, folio non scisso, fructu maximo, albo, sessili*, rough Gourd, with an undivided Leaf, and the greatest Fruit, of a white Colour, and flat bottomed, of *J. B.* 2. 221. and the *Pepo compressus major*, the greater flat Pumpion of C. B. Pin. 311.

Melopepon with a Fruit of a yellowish Colour, and a rough Leaf, *Melopepo flavescens, folio aspero*: The *Cucurbita sessilis, flavescens, folio aspero* of *J. B.* 2. 222.

Melopepon *latus & depressus*: The *Cucurbita lata, clypeiformi accedens, minus tuberosa*, of *J. B.* 2. 227.

Melopepo fructu Citriformi, Melopepon with a Fruit shaped like a Citron: The *Cucurbita clypeatæ affinis, ovalis, angulosa, ad citrum nonnihil accedens* of *J. B.* 2. 228.

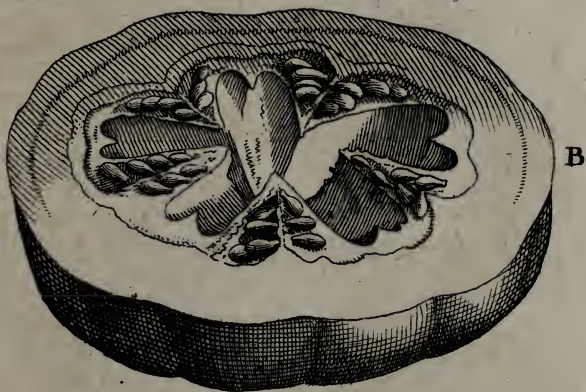
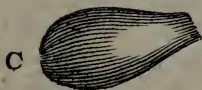
Melopepon with a Fruit tapering at both ends, — *fructu utrinque turbinato*: The *Cucurbita, clypeatis affines, utrinque aliquo modo turbinata* of *J. B.* 2. 228.

Melopepon with a yellow Fruit, having a thin slender Rind, — *fructu luteo, cortice tenero*: The *Cucurbita lutea, cortice tenero* of *J. B.* 2. 218.

Melopepon with a Fruit shaped like a Buckler — *clypeiformis*. C. B. Pin. 312. The *Cucurbita clypeiformis sive Siciliana, Melopepon latus à nonnullis vocata*, the Buckler or Sicilian Gourd, called by some the broad Melopepon, of *J. B.* 2. 224. and the *Melopepo clypeatus* of *Tabernemontanus*. Icon. 470.

Melopepon with a rugged Fruit, *Melopepo verrucosus*; the *Cucurbita verrucosa*, of *J. B.* 2. 222.

Melopepon, with a Fruit rough and uneven, with several Knobs and wartlike Excrescences — *Tuberosus & verrucosus*, the









the *Cucurbita clypeiformis, tuberosa & verrucosa* of *J. B.* 2. 227.

Melopepon with a yellowish Fruit, having several wart-like Swellings, gently channelled, and a rough Leaf, — *Verrucosus, flavescens, leviter striatus, folio aspero*, the *Cucurbita sessilis, flavescens, folio aspero* of *J. B.* 2. 222.

Melopepon with a whitish Fruit, having its Surface rugged with wart-like Swellings, and slightly streaked, and a rough Leaf, — *Verrucosus, albicans, leviter striatus, folio aspero*; the *Cucurbita sessilis, albicans, folio aspero*, of *J. B.* 2. 222.

Melopepon with a white Fruit, that has many wart-like Excrescences, and white Seeds, — *Verrucosus, fructu & semine albis*, the *Cucurbita alba, verrucosa* of *J. B.* 2. 224.

TABLE XXV.

GENUS IX.

Anguria, Citrulls.

THE Citrul differs from the other cucurbitaceous Plants in its Leaf, which is deeply cut and jagged, and in its eatable Fruit.

Its Species are,

Anguria, called Citrul, *Anguria Citrullus dicta*. *C. B. Pin.* 312. This is the *Citrullus folio Colocynthis secto, semine nigro, quibusdam Anguria*, Citrul with a Leaf cut like that of the *Coloquintida*, and a black Seed, called by some *Anguria*, according to *J. B.* 2. 235. and the *Anguria, Cucumis, Citrullus* of *Dodoneus. Pempt.* 664.

It has many flexible, tender, viny Stalks, which are rough, and spread along the Surface of the Ground; the Leaves which adorn them are large, rough and hairy, and cut into deep Jaggs; from their Bosom the Tendrils shoot, as also the Footstalks which sustain yellow Flowers; the Flowers are succeeded by a large and round Fruit, the Rind whereof is somewhat hard, yet smooth, not rising into any knobby Swellings, of a dark green Colour, marked with Spots of a very pale Green; the

Pulp or Flesh is like that of the common Cucumber, white, firm, and of an agreeable Taste; the Seed is oblong, broad, flat, of a black Colour, and wrinkled, having a pretty hard Shell, which encloses a white Pith, pleasant to the Taste; it lies buried in that spongy Substance which fills the Centre of the Fruit: It varies in the Colour of its Bark or Rind, which in some is green, in others stained with whitish Spots; the Pulp in some Sorts is red, and of a sweeter Taste, in others white; the Seeds are black, red, or yellow.

The largest Indian Citrul, *Anguria Indica, maxima*. *H. Lugd. Bat.*

Trefoil American Citrul, with a small Fruit, *Anguria triphyllus, Americana, parvo fructu*; the *Cucumis triphyllus, fructu variegato* of *Plumier*.

American Citrul, with a prickly, eatable Fruit, *Anguria Americana, fructu echinato, eduli*: This is the *Cucumis Anguria folio latiore, aspero, fructu minore, candido, spinulis obtusis muricato*, Cucumber with a rough and broad Citrul-Leaf, and a small white Fruit, armed with blunted Prickles, in *Dr. Sloan's Catalogue* of the Plants of *Jamaica*, p. 103. and the *Cucumis sylvestris, Americanus, Anguria folio, fructu ovi magnitudine & figura, ad maturitatem pallido, spinosis tuberculis, momordica instar muricato*. Wild American Cucumber with a Citrul Leaf, and a Fruit of the Bigness and Shape of an Egg, of a pale Colour when ripe, and like the *Momordica*, set with prickly knobbs, of *Pluknet. Phytog.* 170. *Fig.* 3.

Citruls with a yellowish Pulp, and a black Seed, *Anguria carne flavescente, semine nigro*.

Citruls with a red Pulp, and a larger black Seed, *Anguria carne rubente, semine nigro, majori*.

Citruls with a red Pulp, and a smaller red Seed, *Anguria carne rubente, semine nigro, minori*.

The Seed of the Citrul is one of the four great cold Seeds, and agrees in virtues with those of the Musk-melon and the Cucumber.

TABLE XXVI.

GENUS X.

Cucurbita, the Gourd.

IS a Plant with Flowers A B, of one single Leaf, of the expanded Bell-shape, for the most Part so deeply cut, that they seem to consist of five distinct Leaves: Of the Flowers, some are barren, adhering to no Embryo; others are fruitful, growing upon an infant Germ C, which is afterwards changed into a Fruit, in some Species of a round and long Shape, in others formed so as to represent the Figure of a Bottle D; it is commonly divided into six seminal Cells E, which enclose flat and oblong Seeds, bluntly pointed at one end G, broader at the other, and so cut as in some sort to imitate the Shape of a Heart F.

Its Species are,

The long Gourd, with a soft Leaf, and a white Flower, *Cucurbita longa*, folio molli, flore albo. *J. B.* 2. 214. This is the *Cucurbita oblonga*, flore albo, folio molli, the oblong Gourd, with a white Flower, and a soft Leaf, of *C. B.* Pin. 313. and the *Cucurbita longior* of *Dodonæus*. *Pempt.* 669.

From a white slender Root variously divided, it sends up many viny Stalks, about the thickness of a Finger, and cornered, which stretch to a great Length, spreading upon the Ground, or by help of their Tendrils climbing, if any Prop stands near adjoining; the Leaves are round, a Foot, or a Foot and a half broad, (when the Plant meets with a proper Soil) covered over with a soft woolly Down, and somewhat notched about the Edges, fixed to round, oblong, and hollow Footstalks: The Flowers are of a snowy White, napped with a fine Down upon the Inside, and hairy without; the Fruit which succeeds the Flower, grows to a very great Bigness, stretching five or six Foot in length, having a thick Neck, and swelling into a pretty considerable Belly, bending and yielding, if it meets with any Thing that

resists its Growth, so that it may be moulded to any shape; for when young, the Bark or Rind is soft and tender, and of a grassy Colour; when grown to maturity, hard, and of a yellowish Colour; the Pulp is white, insipid, and somewhat spongy.

The Gourd shaped like a Hook, with a soft Leaf and a white Flower, *Cucurbita falcata* figurâ, folio molli, flore albo. *C. B.* Pin. 313.

The broad or flat Gourd, with a soft Leaf, and a white Flower, *Cucurbita latior*, folio molli, flore albo. *J. B.* 2. 215. This is the *Cucurbita major sessilis*, flore albo of *C. B.* Pin. 312. and the *Cucurbita latior* of *Dodonæus*. *Pempt.* 669.

Long Gourd, with a white Flower, and a swelling Belly, *Cucurbita longa*, flore albo, protuberante ventre. *J. B.* 2. 218.

The American Gourd, two Cubits long, and round, *Cucurbita Americana*, teres, & bicubitalis. *H. Reg. Paris.*

The Bottle-Gourd, *Cucurbita lagenaria*. *J. B.* 2. 216. This is the *Cucurbita lagenaria*, flore albo, folio molli, Bottle-Gourd with a white Flower, and a soft Leaf of *C. B.* Pin. 313. and the *Cucurbita prior* of *Dodonæus*. *Pempt.* 668.

This varies from the first in the Shape of its Fruit only.

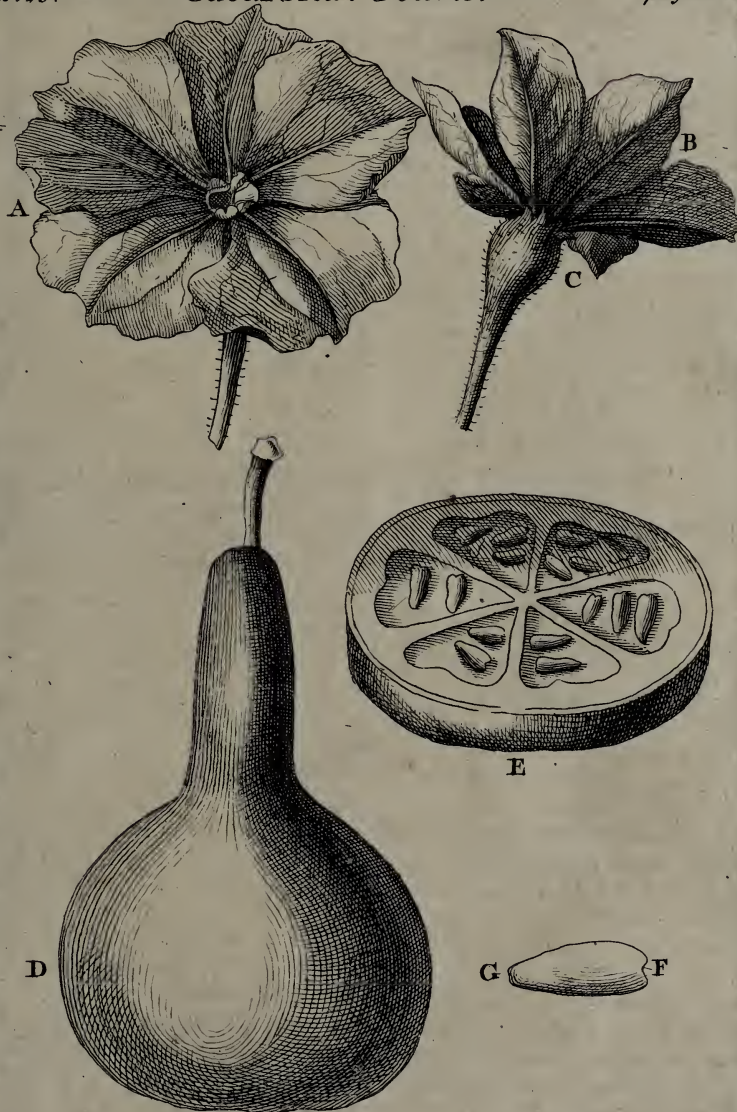
Bottle-Gourd, with a white Flower, a soft Leaf, and a tapering Fruit, *Cucurbita lagenaria*, flore albo, folio molli, fructu turbinate. *C. B.* Pin. 313.

Bottle-Gourd, diversly colour'd, *Cucurbita lagenaria*, variegata.

The greater Bottle-Gourd, with a rough Leaf, *Cucurbita lagenaria*, folio aspero, major; the *Cucurbita alba*, aspera, fructu longo collo, the white rough Gourd, with a long necked Fruit of *J. B.* 2. 224.

The smaller Bottle-Gourd, with a rough Fruit, *Cucurbita lagenaria*, fructu aspero, minor; the *Cucurbita lagenam exprimens*, parva, aspera of *J. B.* 2. 224.

The Seed of the Gourd is one of the four greater cold Seeds; it agrees in virtues with the Cucumber, both as to the Qualities of its Flesh or Pulp, and the Powers of its Seed; the fresh Leaves applied to the Breasts of Women in Child-bed, according to the Testimony of *Matthiæolus*, diminish the





the Quantity of Milk; the Water distilled from the unripe Fruit is of great use in all external Inflammations of the Eyes, Ears, and such as arise from a gouty Humour; and taken internally, wonderfully allays the preternatural Heat of the Body; the expressed Juice has the same Powers. *Schroder.*

GENUS XI.

Colocynthis, Coloquintida, or the bitter Gourd.

THE Coloquintida differs from the other cucurbitaceous Plants, in its Leaf, which is cut into deep Jaggs, and in its Fruit, which is excessively bitter, and not eatable.

Its Species are,

The greater Coloquintida, with a round Fruit, *Colocynthis fructu rotundo, major. C. B. Pin. 313. Colocynthis. J. B. 2. 232. Dodonens. Pempt. 665.* common Coloquintida.

It bears several hairy, rough, and streaked Stalks, which spread and creep along the Ground; the Leaves stand singly at certain Intervals, upon Footstalks two or three Inches in length, sometimes longer, they are hairy, rough, and whitish or hoary, especially underneath, marked with white Spots, jagged, and cut in the Form of a Citrus Leaf, but the Divisions smaller; at their Footstalks the winding Tendrils and Flowers shoot; the Flowers are yellowish, and are succeeded by a Fruit, big and round as an Orange, which is at first green, afterwards turns of a yellowish Colour, and of a most rank Smell: The outer Bark, Rind or Shell, is usually separated and peeled off by the Natives of the eastern Countries where it grows; the Pulp is white, spongy, light, and intolerably bitter; containing six Rows of smooth, flat, and hard Seeds, of a white, brownish or dusky Colour, about the Bigness of the Cucumber-Seed, but more round, full, and hard.

Coloquintida or bitter Gourd, with a round streaked Fruit, *Colocynthis, fructu ro-*

tundo, striato; the Cucurbita folio aspero, amaro, the Gourd with a rough and bitter Leaf of J. B. 2. 228. The Pepo rotundus, melonis effigie, round Pumpkin, shaped like a Musk melon of C. B. Pin. 311. and the Pepo sylvestris or wild Pumpkin of Dodonens. Pempt. 668.

Great and round Coloquintida or bitter Gourd, *Colocynthis grandis, rotunda of Cordus. Hist. 115. the Cucurbita aspero folio, amara, grandis, rotunda, viridis, great, round, and green bitter Gourd, with a rough Leaf, of J. B. 2. 229.*

The smaller Coloquintida with a round Fruit, *Colocynthis fructu rotundo, minor. C. B. Pin. 313. This is the Colocynthis fungosa, & levis, or spongy and light Coloquintida of Cordus. Hist. 118.*

This differs only from the first in the Smallness of its Fruit; the Stalks, Leaves, Flowers, &c. are the same.

Coloquintida, with a smaller and variegated or discoloured Fruit, *Colocynthis, fructu minori, variegato: This is the Colocynthis aspera, amara, fructu parvo, globoso, colore vario, or rough and bitter Coloquintida, with a small, round, and variously coloured Fruit of J. B. 2. 230. and the Colocynthis pomiformis, cortice maculato, or Coloquintida shaped like an Apple, with a spotted Rind, of C. B. Pin. 314.*

Coloquintida, with a greater Fruit, having its Bark distinguished with variety of Colours, *Colocynthis, fructu majori, variegato: This is the Colocynthis amara, magna, folio aspero, colore vario, of J. B. 2. 230.*

Coloquintida with a Fruit resembling an Orange, *Colocynthis fructu Aurantio simili; the Cucurbita minima, lutea, amara, the smallest, yellow, bitter Gourd of J. B. 2. 231.*

Oblong Coloquintida, *Colocynthis oblonga. C. B. Pin. 313. the Cucurbita aspero folio, amara, grandis, oblonga, viridis, or great Coloquintida or bitter Gourd, with an oblong Fruit, and a rough Leaf, of J. B. 2. 229. and the Colocynthis grandis, oblonga, of Cordus. Hist. 114.*

Oblong, and smooth Coloquintida. *Cordus. Hist. 115. the Cucurbita oblonga, non angulosa, colore viridi, amara, folio aspero, or bitter Gourd, oblong, not cornered, of a green*

green Colour, and having a rough Leaf of *J. B. 2. 229.*

Tapering Coloquintida, *Colocynthis turbinata. Cord. Hist. 115.* The *Cucurbita asperifolia, amara, turbinata, flava, candicantibus lineis inscripta, parva*, or small bitter Gourd, with a rough Leaf, and a yellow taper'd Fruit, streaked with whitish Lines, of *J. B. 2. 229.* and the *Cucurbita sive Colocynthis amara, pyriformis, variegata*, or the Coloquintida or bitter Gourd, with a Fruit shaped like a Pear, and distinguished with variety of Colours, of the same Author 2. 230. and the *Colocynthis seu Pepo amarus*, Coloquintida or bitter Pumpkin of *C. B. Pin. 313.*

This differs somewhat from the first and common Sort; it has many long, rough and streaked Twigs, which climb and mount by help of their Claspers: The Leaves are like those of the Cucumber, but more deeply jagged, of a dark green Colour and soft above, but underneath of a grassy Colour, and rough: The Flowers are like those of the Pumpkin, of a yellow or Saffron-colour: The Fruit tapers, and is shaped like a Pear, of a greenish Colour, striped with white Lines, and marked with white Spots: The Pulp is white, of a heavy unpleasant Smell, and intolerably bitter; it contains but four Rows of white, flat Seeds.

Pear-fashioned Coloquintida, with a Leaf of various Colours, *Colocynthis pyriformis, folio vario*; the *Cucurbita amara, parva, mediocris magnitudinis*, or small bitter Gourd, with a Fruit of a moderate Size or Bigness, of *J. B. 2. 231.*

Coloquintida with a flat Fruit, *Colocynthis fructu compresso*; the *Cucurbita sessilis & compressa, flava, amara*, or bitter Gourd, with a flat, yellow Fruit, of *J. B. 2. 231.*

Of all the Species of the Coloquintida, that which is most commonly used in the Shops is the *Colocynthus fructu rotundo minor, &c.* It is the Fruit of a wild Gourd, and grows plentifully in several Parts of the *Levant*, from whence it is brought to us separated from the external Bark or Rind, as has been already hinted; the Seeds are commonly thrown away; the Pulp purges violently gross and phlegmatick Humours from the most remote Parts of the Body, as

the Brain, Nerves, Joints, and Lungs; whence it is recommended as of great use, and administered with Success in an inveterate Head-ach, in Apoplectic, Epileptic, Vertiginous, and Asthmatick Cases; and in an obstinate Cough, and difficulty of Breathing, in all articular Distempers arising from a cold Cause, in a flatulent Cholick, the Hydropsy, &c. but it is a most dangerous Medicine, and not to be used without the greatest Precaution, and with its proper Correctives, such as Cumin, Tragacanth, Mastich, Bdellium, &c. For the Satisfaction of the Curious I shall transcribe, and subjoin what Monsieur *Bolduc* offered to the Royal Academy of Sciences in relation to this Medicine.

None are ignorant, says he, that the Coloquintida is the Fruit of a wild Gourd which grows in the *Indies*, and is brought to us from thence; that it is one of the most violent Purgatives in all the *Materia Medica, Medicamentum viroissimum, & tantum non mors ipsa*; 'tis true, that in operating it frets, corrodes, and opens the Mouths of the Vessels, and occasions a Flux of Blood, from whence some have concluded, that it abounds with a volatile Salt, giving a greater Degree of Fluidity to the Blood, and hindering its Coagulation: Mr. *Bolduc* found nothing of this from his Experiments; for having infused a sufficient Quantity of the Powder of Coloquintida into Blood, newly drawn from the Veins, it did not prevent its Coagulation: This indeed does not conclude that it may not produce this Effect upon the Blood circulating within its Vessels. He tried the like Experiments upon Milk, with the like Success; from whence, he says, it may be inferred with more reason, that the Coloquintida abounding with a certain sharp Salt, as a great many other violent Purgatives do, opens the Orifices of the Veins, and thus produces this bad Effect.

The Ancients imagined another reason, telling us, that the Coloquintida, as it is of a very thin and spongy Substance, does not undergo in the *Prima via*, the Change and Alteration necessary for its further Conveyance and Distribution, but that remaining there, it swells and becomes a mere Sponge, adhering close to the delicate Membranes,

Membranes, which it corrodes and ulcerates, and produces a Chain of other mischievous Consequences, justly insinuating a Suspicion of its Maliginity.

Mr. *Bolduc* however assures us, from the frequent use he has made of it, that he cannot accuse it as productive of all those bad Effects, when it is given in Infusion only; but its insupportable Bitterness has still obliged to administer it in Substance, it being more easy thus to disguise it to the Taste; yet, whatever Suspicion it lies under, Necessity often forces Recourse to it, when glutinous and viscous Humours, which resist the Powers of all other Catharticks, are to be dislodg'd from the most remote and distant Parts; then it is successfully employed, joined with other Purgatives, to which it serves properly as a Spur and Vehicle.

By Distillation Mr. *Bolduc* obtained nothing that could particularly satisfy him as to the Nature of this Medicine; for, as from other Purgatives, he drew from its Pulp at first Phlegm only, afterwards he found the same Phlegm accompanied with an Acid, and last of all the same Phlegm with a much smaller Degree of Acid, and upon the contrary, full of an urinous volatile Salt, which sensibly struck the Smell: These three Liquors, as usual, contained some fetid Oil; the fixed Salt which he had from the black and burnt Part that remained in the Vessel, had nothing particular in it; it fermented with Acids, as the most Part of those Salts do.

Next he analysed the Seeds, which have been in all Times esteemed useless in Physick; the Result was much the same, with this difference however, that the last portion of Liquor, which he had from the Seeds, was not so much charged with volatile Salt as the last, which the fleshy Part or Pulp of the Fruit yielded; which was not only sensible to the Smell, but likewise confirmed by the ordinary Proofs, for the first fermented considerably with Acids, which this last did but in a small Degree.

But as this way of Analyzing gives, for the most part, but a very general and superficial Knowledge of the Nature of mixed Bodies, he had Recourse to other Methods.

He fermented four Ounces of the Pulp of Coloquintida with six Pounds of new Wine from the Press, for the Space of ten or twelve Days, and afterwards distilled this Mixture in *Balneo vaporis*, by Portions; the first Portion of eight Ounces was extremely clear, and moderately spirituous, yet retain'd the bitterness of the Coloquintida; the others diminished in quality by Degrees; and when the Liquor was become entirely inspid, he put a stop to the Distillation, and made an Extract of a pretty solid Consistence of what remained, which amounted to two Ounces and a half: This large Quantity of Extract in proportion to the small Quantity of Coloquintida employed, proceeded, as he imagined, from the Union of the essential Salts of the Wine, with those of the Coloquintida that could not be exalted.

The Operation being finished, he experienced these Medicines upon his Patients; one Ounce of the first Liquor obtained by Distillation, affected the Stomach with strong Inclinations to vomiting, and raised excessive cholick Pains and Gripings without any other Effect, which he was obliged to assuage and remove by the Means of other Remedies; two Ounces of the same Liquor purged effectually, but its Operation was attended with Nauseating and Gripings, as before; which he thinks might not probably happen, if that Spirit were softened by the Mixture of any other proper Medicine; but his Design was to know it by it self without any Mixture: From this experiment he is of Opinion, that the purgative Quality of mixed Bodies may be exalted by the Means of Fermentation, yet not so as to lay it down for certain, till confirmed by repeated Experience.

The Extract showed it self of a quite different Nature, for it retained nothing of the Violence of the Coloquintida, nor of the usual Corrections and Preparations of it; given to the Quantity of ten or twelve Grains it purged gently, without the least Inconvenience: If the Success of these first Essays be confirmed by future Experience, Mr. *Bolduc* thinks a Method is discovered how to conquer the Force of this violent Medicine, and of all others of the same Character; and that then it may be with

some reason concluded, that the purgative Quality of mixed Substances depends upon a certain volatile Salt more or less predominant, which by this Preparation may be fixed and fettered by the Acid of the essential Salts of Wine.

For further Satisfaction as to the Nature of this Medicine, Mr. *Bolduc* digested, during the Space of fifteen Days, sixteen Ounces of the Pulp of Coloquintida, with six Pints of boiling Water, and afterwards distilled the whole; the Liquors which came by Distillation had nothing in them of a penetrating or volatile Spirit, no Smell, nor any effect taken inwardly; but the Distillation finished, the Extract which he made of the Remainder proved a salutary Medicine; it was a gentle Purgative, and gave sufficient Demonstration of its active Powers, administered even in a small Quantity: Perhaps as the Coloquintida is of a Substance extremely rare and spongy, its mucilaginous and gross Parts, which it contains in great Abundance, are the most hurtful and noxious, and a long Digestion in a large Quantity of Water attenuates, subtilizes, and dissolves them; his subsequent Experiences confirmed this thought; he drew from the Coloquintida all the Tinctures he could by the help of Water; and afterwards from those tinctures by Filtration he separated the clear Part from the mucilaginous, and made a solid Extract of the one and the other; the Extract of the first was a more powerful, and yet more gentle Cathartic than that of the second.

It remained to give the Coloquintida the Spirit of Wine for a Dissolvent; from eight Ounces Mr. *Bolduc* obtained but half an Ounce of a resinous Extract, whereas from the same Quantity he had, by the Means of Water, three Ounces of a saline Extract, including both that of the clear, and that of the mucilaginous Part; by which it is manifest that the Coloquintida abounds more in Salts than in Oil or Sulphurs; and it is highly probable, that the Violence of this purgative Fruit is owing principally to its grosser Salts involved in its earthy and mucilaginous Parts. *Histoire & Memoires de l'Acad. des Sci. pour l'An. 1701.*

Hippocrates, Dioscorides, Galen, Pliny, Aetius, and all the ancient Masters of the physical Art, were well acquainted with the Coloquintida, as appears from their Writings.

The Dose prescribed by the Ancients, of this, as of most other Purgatives, far exceeds that of our Modern Physicians; *Dioscorides* orders four *Oboli*, which is about two Scruples, of the Pulp to be made into Pills with Honey, Myrrh, and Water; whereas now ten Grains is esteemed a large Dose, yea the half mixed with other Catharticks operates powerfully, which perhaps may be owing to the Difference of Climate and Constitution: As a Remedy against the Tooth-ach, *Dioscorides* orders an Apple of the Coloquintida to be cruised with Clay, and some Vinegar and Nitre to be heated therein, the Seeds being first taken out; this Liquor, he says, allays the Pain, and fastens loose Teeth, if washed therewith; and if in an Apple so prepared, Wine or honied Water be boiled, and then left to cool in the Air for the Space of a Night, the Liquor, he says, purges strongly gross and phlegmatic Humours from the remote and distant Parts of the Body: *Mathiolus* tells us, that if pure Oil is put into a hollowed Apple of the Coloquintida, and set upon warm Ashes or Embers to be thoroughly heated, it turns the Hair of a pure black Colour, prevents its falling, and preserves it long from being grey; the same Oil, he says, dropped into the Ears, removes the Pain and Noise thereof, &c.

Lozenges are prepared from the Pulp of Coloquintida, called *Troches Albandal*, or of Coloquintida, Dose from 10 Grains to XV or gr. 1 ; as also an Extract made with White Wine, Dose from IV gr. to VI. these are of great use in the above mentioned obstinate Distempers.

Coloquintida has given a Name to the *Hiera* of Coloquintida; it is also employed in the Confection of *Hamech*, in the Pills of *Euphorbium*, and the Pills of *Sagapenum* of *Quercetan*, in the *Pill. ex duobus*, or of two Things of the London Dispensatory, and in the Catholick Extract of *Sennertus*, &c.

Campanula. *Bellflower.*



S E C T. VIII.

Of Herbs, with a Flower of one single Leaf, in the Shape of a Bell, whose Flower-Cup changes into a dry Fruit.

T A B L E XXVII.

G E N U S I.

Campanula, Bellflower.

THE *Campanula* or Bellflower, is a Plant with a Flower of one single Leaf A B, shaped like a Bell, and cut into several Segments: Its Flower-Cup C D changes into a membranous Fruit E F G, divided into three or more seminal Cells H; where they unite, or are jointed, an Axle I is fixed, furnished with three *Placenta's* or nutritive Membranes L, to which the Seeds adhere, which in some Species are extremely small M, in others flat, of an oval Shape, and rim'd about as it were with a Ring N, they are usually scattered thro' the Hole K O, proper to each Cell:

Its Species are,

The greatest Bellflower, with the broadest Leaves, and a blue Flower, *Campanula maxima, foliis latissimis, flore ceruleo.* C. B. Pin. 94. This is the *Campanula pulchra à Carolo Tossano missa*, of J. B. 2. 807. and the *Trachelium majus Belgarum*, or the great Throat-wort of *Clusius*. Hist. CLXXII.

The Root of this Species does not penetrate deep into the Ground, but spreads wide, near to the Surface, numerous white Fibres, of a sweet Taste, and full of a milky Juice; it sends up several hollow, streaked, and somewhat hairy Stalks, about the thickness of a Finger, and two or three Cubits high; the Leaves nearly resemble those of the Nettle, they stand at certain Intervals upon the Stalk, in an alternate Order, rough, sharp-pointed, toothed a-

bout the Edges like a Saw, a Hand-breadth and more in length, and about a Hand-breadth broad; from their Angles with the Stalk the Flowers shoot, some whereof stand upright, others hang downwards; they are of a perfect blue Colour, cut into five long and sharp Jaggs or Segments, smooth without, and hairy within, and are supported by short purplish Footstalks; the pointed Jaggs of each Flower turn themselves backwards, as *Gerard* says, like a Scrole; the Chives are yellow, and the Stile or Pointal of a paler Yellow, and split into three Parts: The Flower-Cup has five long Points; the Flower is succeeded by a large Head, like to a Medlar, hanging downwards, wherein the Seed is contained.

Mr. Ray takes this Species and the following, to be one and the same, diversified only in the Colour of the Flower: It grows plentifully in the northern mountainous Parts of *England*, as in *Derbyshire* and *Yorkshire*, and in several other Parts of the Country.

The greatest Bellflower, with the broadest Leaves, and a white Flower, *Campanula maxima, foliis latissimis, flore albo.* C. B. Pin. 94. This is the *Trachelium candidum, Anglicum majus, foliis ferè digitalis, vel Campanulae*, or the greater white English Throat-wort, with Leaves almost the same with those of the Foxglove, or Bellflower, of J. B. 2. 807.

The greatest Bellflower, with the broadest Leaves, and an ash-coloured Flower, *Campanula maxima, foliis latissimis, flore cinereo.* C. B. Pin. 94.

The greatest Bellflower, with the broadest Leaves, and a Flower of an agreeable Red, *Campanula maxima, foliis latissimis, flore suave-rubente.* H. R. Par.

Another great Bellflower, with broad Leaves, *Campanula maxima, foliis latissimis, altera, H. R. Par.* The *Trachelium Giganticum*, or Giant Throat-wort of some Authors.

The more common, or the greater and rougher Bellflower, with Nettle-Leaves, *Campanula vulgarior, urticae foliis, vel major & asperior. C. B. Pin. 94.* This is the *Campanula major & asperior, folio urticae*, of *J. B. 2. 805.* and the *Cervicaria major*, or greater Throat-wort of *Dodoneus. Pempt. 164.* Great Throat-wort or Canterbury Bells. *Ray.*

It nearly resembles the *Viola mariana*; the Root is white, and of a Taste no less agreeable than that of the Rampions; the Stalks are rough, two Foot in height, sometimes four, and often higher, about the thickness of the little Finger, channelled, hollow, and of a purplish Colour; the Leaves are hairy, shaped like the Nettle-Leaf, but sharper-pointed, the lower hang upon long; and the higher upon shorter Footstalks; from their Bosom the Flowers rise of a blue, or violet Colour, sometimes white, hairy upon the Inside; they stand in a small Flower-Cup, which, like the Flower, is cut into five Segments; the Pointal is three-headed, of a whitish Colour, and is surrounded with five yellowish Stamina or Threads; it grows in woody Places, and near to Hedges.

The more common, or the great and rough Bellflower, with a Nettle-Leaf, and a Flower of a pale purple Colour, *Campanula vulgarior, foliis Urticae, vel major & asperior, flore dilute purpureo. C. B. Pin. 94.*

The more common Bellflower, with a Nettle-Leaf, and a double Flower, *Campanula vulgarior, foliis urticae, flore duplici, interdum triplici, & quadruplici. H. R. Par.*

The more common Bellflower, with a Nettle-Leaf, or the greater and rougher Bellflower, with a white Flower, *Campanula vulgarior, foliis urticae, vel major & asperior, flore candido. C. B. Pin. 94.*

The more common Bellflower, with Nettle-Leaves, and a white double Flower, *Campanula vulgarior, foliis urticae, flore duplici albo. H. R. Par.*

The Bellflower with an oblong Nettle-Leaf, not so rough, *Campanula urtica foliis oblongis, minus asperis. C. B. Pin. 94.* This is

the *Cervicaria major II*, or the second greater Throat-wort of *Dodoneus. Pempt. 164.*

Bellflower with a less rough and oblong Nettle-Leaf, and a white Flower, *Campanula foliis urticae oblongis, minus asperis, flore albo. H. Lugd. Bat.* This is the *Campanula, sive Cervicaria major, laevior, flore albo, magno*, the Bellflower, or the greater and smoother Throat-wort, with a large white Flower, of *J. B. 2. 804.*

The highest pyramidal or steeple Bellflower, *Campanula pyramidata, altissima*: This is the *Campanula lactescens, fetidior*, of *Clusius. Hist. CLXXII.* The *Pyramidalis laevis*, or smooth pyramidal Bellflower, of *J. B. 2. 808.* and the *Rapunculus hortensis, latiore folio, seu pyramidalis*, the garden Rampions with a broader Leaf of *C. B. Pin. 93.*

This Plant rises with smooth Stalks three or four Cubits high, which are garnished with smooth oblong Leaves, having their Edges somewhat notched and insected; those which stand nearest to the Ground, according to *Morison's Description*, resemble in form the Leaves of the black Violet, but are somewhat larger; those which adorn the Stalks are of a longer Shape, both of a deep Green: The Flowers, which deck the Stalk from the Middle to the Top, are of a blue Colour, larger and more expanded than those of the common Rampions; the Root is like that of the Rampions, and abounds with a milky Juice: *Gerard* affirms, that the Knobs or seminal Vessels, are empty of Seed, so that the whole Plant is barren, and must be increased and propagated by slipping of its Root; the Place of its native Growth is not certainly known; it flowers in *July* and *August*.

Mountain, pyramidal Bellflower, resembling the Vipers-Bugloss, *Campanula Alpina, Echioides, pyramidata*: This is the *Campanula foliis Echii*, or Bellflower with Vipers-Bugloss Leaves of *C. B. Pin. 94.* and the *Alopecuros Alpinus quibusdam, Echium Montanum Dalechampii*, or the Mountain Fox-tail of some Authors, and the Mountain Bugloss of *Dalechamp*, according to *J. B. 2. 809.*

Mr. Ray takes this Species to be the same with the *Trachelium Supercilios* of *Clusius*, and

and the *Trachelium spicatum tenuifolium*, or the thin-leaved Throat-wort with Spiked Heads, of *Parkinson*, and thus describes it.

The Root is about the thickness of a Man's Thumb, gradually diminishing in bigness, more than a Hand-breadth in length, and sends out some pretty large Fibres; it is of a reddish Colour, and covered with a wrinkled or rugged Bark; the Stalk is single, and rises about a Foot in height, thick as the Root, strong, hollow, and rough; it is well covered with Leaves, some whereof are a Hand-breadth in length, others, especially the higher, are shorter, half an Inch in breadth, hairy, and nearly approaching to the Form of Bugloss-Leaves; the Stalk ends in a long Spike of little Leaves and Flowers, disposed in a most beautiful Order; the Flowers are like those of the Throat-wort or Rampions, but smaller, and of a more pale Colour; the Flowers are succeeded by little Heads or Knobs, which contain a very small yellowish Seed; it grows upon the Alps.

Smooth Mountain Bellflower, with a Flower of a most pale blue Colour, *Campanula Alpina*, glabra, flore dilutissime caruleo. *J. B.* 2. 804.

Bellflower or Throat-wort of *Bononia*, with a small Flower, *Campanula sive cervicaria Bononiensis*, parvo flore. *J. B.* 2. 804.

Small pyramidal Bellflower, *Campanula pyramidalis*, minor, of *Prosper Alpinus*. *Exot.* 340.

Bellflower with a Nipple-wort-Leaf and a large Flower, *Campanula lamsanae* folio, magno flore.

Bellflower of the Canary Islands, with an Orrach Leaf, and a tuberos or knobby Root, *Campanula Canariensis*, atriplicis folio, tuberosa radice: This is the *Campanula Canariensis regia*, seu *Medium radice tuberosa*, foliis sinuatis, cassis, atriplicis amulis, terris circa caulem ambientibus, flore amplo, pendulo, colore flammeo rutilante of *Pluknet. Almagro Bot. & Phytog. Tab.* 276. *Fig. 1.*

Garden Bellflower, with a Root like that of the Rampions, *Campanula hortensis*, rapunculi radice. *C. B.* *Pin.* 94. This is the *Campanula repens*, flore minore caruleo; or the creeping Bellflower, with a small blue Flower of *J. B.* 2. 804. and the *Cervicaria*

major, *gluestris*, or the greater wild Throat-wort of the *Hortus Eystet.*

Garden Bellflower, with an oblong Leaf and Flower, of a blue Colour, *Campanula hortensis*, folio & flore oblongo, caruleo. *C. B. Pin.* 94. This is the *Viola Mariana* of *Dodoneus*, the *Medium* of some Authors, according to *J. B.* 2. 804. and the *Viola Mariana* of *Dodoneus*. *Pempt.* 163.

Garden Bellflower, with an oblong Leaf and Flower, of a whitish Colour, *Campanula hortensis*, folio & flore oblongo, subalbido. *C. B. Pin.* 94. This is the *Viola Mariana*, flore cineracei coloris of *Clusius. Hist.* CLXXI.

Garden Bellflower, with an oblong Leaf and Flower, of a milky Colour, *Campanula hortensis*, folio & flore oblongo, lacteo. *C. B. Pin.* 94. This is the *Medium flore albo* in the *Hortus Eystet.*

Garden Bellflower, with an oblong Leaf and Flower, of a purple Colour, *Campanula hortensis*, folio & flore oblongo, purpureo. *C. B. Pin.* 94. The *Medium flore purpureo* in the *Hortus Eystet.*

Garden Bellflower, with an oblong Leaf and Flower, spotted with a white and violet Colour intermixed, *Campanula hortensis*, folio & flore oblongo, ex albo & violaceo maculatim commixto: The *Viola Mariana*, flore ex albo & violaceo maculatim commixto of *Clusius. Hist.* CLXXI.

Garden Bellflower, with an oblong Leaf and Flower, streaked with Lines or Rays of a white and violet Colour; the *Viola Mariana*, flore ex albo & violaceo radiatim commixto of *Clusius. Hist.* CLXXI.

Garden Bellflower with an oblong Leaf, and a double Flower, of a blue Colour, *Campanula hortensis*, folio oblongo, & flore pleno caruleo.

Bellflower with Leaves covered with a white Down upon their under Side, *Campanula Media*, foliis inferius candida lanugine vestitis. *C. B. Pin.* 94. *Campanula sive Cervicaria media Thalia*, floribus caruleis parvis. *J. B.* 2. 807. *Cervicaria media Thal.* 32.

Spanish Bellflower, with infected Leaves, and an oblong Flower, *Campanula Hispanica*, foliis incis, flore oblongo; *Campanula sive Medium*, foliis minoribus crispis, flore tubuloso. *Schol. Bot.*

Mountain Bellflower, with a long shining Leaf, *Campanula Alpina*, folio longiori, lucido: This

This is the *Trachelium oblongo folio*, *Alpinum*, or Mountain Throat-wort with an oblong Leaf, of *Boccone*. *Mus. Part. 2. 70. Tab. 53.*

Meadow Bellflower, with Flowers standing in knots, *Campanula pratensis*, *flore conglomerato*. *C. B. Pin. 94.* called the smaller Throat-wort by many, *Trachelium minus multis*, according to *J. B. 2. 800.* The *Cervicaria minor*, or smaller Throat-wort of *Dodonæus*. *Pempt. 164.* and the *Rapunculus sylvestris umbellatus 2.* or the second wild tufted Rampions of *Thalins*. *Icon. VIII.*

It sends up several round, red, hairy Stalks, a Foot or two in height, from the same Root; the Leaves which shoot from the Root stand upon long Footstalks, and are about three Fingers breadth long, an Inch and an half broad, ending in a sharp Point, notched, and as it were curled about the Edges, having a very short and scarce perceptible downy Covering, and feel somewhat hard and dry to the Touch: Those that stand higher upon the Stalk, are smaller, have no Footstalks, and grow in an alternate Order; at the Tops of the Stalks, and the Bosoms of the Leaves, the Flowers stand many together, without Footstalks, gathered as it were into knots, of a beautiful purple Colour, and cut into five Segments, having an oblong Stile or Pointal in the Middle, split into three Parts, and encompassed with five white Threads or *Stamina*; the feminal Vessel lies in the bottom of the Flower-Cup below the Flower; and is divided into three Cells: It grows for the most Parts in mountainous Pasturages and chalky Grounds, and flowers after Midsummer. *Gerard* has described this Plant twice, first under the Name of *Trachelium minus*, or small Throat-wort, and again under the Title of *Viola Calathiana*, or *Calathian Violet*; this led *J. Bauhin* into an Error, for deceived by the bad Figure, and, as he ingenuously confesses, not thoroughly understanding the *English* Tongue, he again proposed this same Species under the Title of *Trachelium sive viola Calathiana*.

Meadow Bellflower, with white Flowers standing many together in knots, *Campanula pratensis*, *flore conglomerato albo*, in the Catalogue of Plants in the Royal Garden at *Paris*.

This is perhaps the *Trachelium minus album*, or the smaller Throat-wort with white Flowers of *J. B.* and it may be questioned if it differs in any Thing from the former but in the Colour of its Flower.

Meadow Bellflower, with single Flowers standing scatteringly upon the Stalk, *Campanula pratensis*, *floribus singularibus per caulem sparsis*. *C. B. Pin. 94.*

Meadow Bellflower, with single Flowers, of a white Colour, dispersed along the Stalk, *Campanula pratensis*, *flore per caulem sparsa, albo*, in the Catalogue of Plants in the Royal Garden at *Paris*.

Mountain Bellflower, with Flowers standing cluster'd together in round Heads or Knots, *Campanula Alpina*, *sphærocephalos*. *C. B. Pin. 94.* This is the *Trachelium majus petreum*, or the greater Rock Throat-wort of *Pona* in his Description of the Plants of *Montebaldo*. *Fol. CCCXXXIII.* and of *J. B. 2. 801.*

From a rugged woody Root, of a pale purplish Colour, it sends up several streaked, and somewhat hairy Stalks, two Foot in length, and of a reddish Colour, with some mixture of Green: *J. Bauhin* says, they are thick, firm, woody, covered with a sort of woolly Down, and confusedly branched; the Leaves are of an oblong Shape, indented, of a blackish or dark-green Colour, and rough, especially underneath, where they appear too hoary or whitish, resembling the Leaves of Sage, but more narrow, and sharper pointed; some of them are an Inch in length, and more, half an Inch broad, others are shorter and narrower, especially those that stand towards the Top; those that grow upon the Branches are much smaller; at the Top of the Stalk the Flowers stand, many clustered together in knots, and lower upon it are found some round Heads of Flowers, but in a smaller Number, and lower still between the Stalk and the Leaves, some others, but still fewer in Number, gathered together in round Tufts, in form imitating the *Cervicaria Umbellata*, or tufted Throat-wort of *Pena*, but smaller, of a white Colour, divided into five, sometimes seven sharp-pointed Segments, in the Centre whereof stand many yellowish Threads,

one

one of which stretches out much longer than the rest, like a *Proboscis*, pretty thick at the Top, and as it ripens becomes forked and crooked; it flowers about the end of *August*, and continues long in flower; whence it was that *Pona* could not observe the Seed; it grows upon *Montebaldo*.

Mountain Bellflower, with Flowers gathered into round knots, and a more round and hairy Leaf, *Campanula Alpina*, *spherocephalos*, *folio rotundiori*, *hirsuto*: *Campanula pratensis*, *flore conglomerato*, *asarinæ foliis*. *Schol. Botan.* 76.

Bellflower, with roundish Leaves, *Campanula foliis subrotundis*. *C. B. Prodrum.* 35.

Mountain Bellflower, with an angular or corner'd Tree-Germander Leaf, *Campanula Alpina*, *teucris folio angulato*: This is the *Rapunculus Alpinus*, *teucris folio rhomboidali*, or Mountain Rampions, with a Tree-Germander Leaf, of a rhomboidal Figure, of *Boccone. Mus. Part.* 2. 75. *Tab.* 61.

Bellflower with Vipers-bugloss Leaves, and rough or downy Flowers, *Campanula foliis echii*, *floribus villosis*. *C. B. Pin.* 94. *Prodrum.* 36.

The Leaves of this Species, which shoot immediately from the Root, are four or five Inches long, narrow, and rough; from among these the Stalk rises, a Hand-breadth, seldom a Foot in height, round and rough likewise, adorned with a few short and narrow Leaves; at the Top of the Stalk the Flowers stand, five or six in Number, of a blue Colour, alternately disposed upon short Footstalks, with their Heads hanging downwards; their Brims, as also the Flower-Cups, are covered with a hairy Down; it is found upon *Montebaldo*, and upon the *Switzers Alps*.

Bellflower with an Alkanet Leaf, and oblong Flowers, *Campanula foliis anchuse*, *floribus oblongis*. *C. B. Pin.* 94. This is the *Rapunculus montanus*, *seve trachelium montanum*, Mountain Throat-wort, or Rampions of *J. B.* 2. 808. and the *trachelium montanum* in the *General History of Plants*, printed at *Lyons. Lugd.* 1202.

Rock Bellflower, with a Bugloss-Leaf, and a large Flower, *Campanula saxatilis*, *echii folio*, *flore magno*.

Mountain Bellflower, with Flowers growing in a pyramidal Spike, *Campanula Alpina*, *pubescens*, *spica florum pyramidata*.

nula Alpina, *pubescens*, *spica florum pyramidata*.

Tufted or Bush-headed Bellflower, with oblong, hairy Leaves, *Campanula umbellata*, *foliis oblongis*, *hispidis*: This is the *Rapunculus sylvestris*, *umbellatus* 1, *Thalii*, or the first wild Rampions, with Flowers growing in Tufts of *Thalius*. *Icon.* VIII.

The highest hairy Mountain Bellflower, with a small Flower, *Campanula Alpina*, *altissima*, *hirsuta*, *parvo flore*: *Trachelium altissimum*, *hirsutum*, *asperius*, *foliis angustis*, *floribus parvis*, or the highest rough and hairy Throat-wort, with narrow Leaves and small Flowers. *J. B.* 2. 801.

Mountain Bellflower, with Goatsbeard Leaves, *Campanula Alpina*, *tragopogi folio*. *C. B. Pin.* 94. This is the *Trachelium tragopogi folio*, *montanum Fabii Columna*, or the Mountain Throat-wort of *Fabius Columna*, with a Goatsbeard-Leaf, of *J. B.* 2. 802. and the *Trachelium tragopogi folio* of *Columna. Phytob.* 25.

It has a pretty thick white Root, full of a milky Juice; the Leaves are narrow, long, and somewhat hard to the Touch, in shape and bigness resembling the Leaves of Goatsbeard; these shoot immediately from the Root; about the end of the Spring the Stalk appears, a Foot in height, of a reddish Colour, and hairy, thinly set with Leaves, disposed alternately thereon; the Flowers stand at the Top of the Stalks, six or seven together, of a purple Colour; the Fruit and Seed is ripened in Summer, and is like that of the Throat-wort: The Root is perennial, of an agreeable sweet Taste, and fit for Sallads, as the common Rampions.

Bellflower with a Peach-Leaf, *Campanula persici folio*. *Clas. Hist.* CLXXI. This is the *Campanula angustifolia*, *caerulea*, or narrow-leaved blue Bellflower of *J. B.* 2. 803. and the *Rapunculus persicifolius*, *magno flore*, or Peach-leaved Rampions, with a large Flower of *C. B. Pin.* 93.

It sends up an angular or streaked, smooth and stiff Stalk, which rises to the height of two Foot and a half, and is garnished with many Leaves, disposed in no certain order; the Leaves are long, narrow, smooth, of a dark shining Green, having their Edges somewhat notched or indented, but so little, that it is scarce perceptible; the

the Flowers stand at the Tops of the Stalks many together, upon the same little Twig, each upon short proper Footstalks; they are large, more expanded than those of the Rampions, divided into five Segments, for the most part of a blue Colour, sometimes white, and are enclosed in a Flower-Cup composed of five Leaves or Segments, below which lies the Seed-Vessel divided into three seminal Apartments, enclosing small shining Seeds, each whereof hath a peculiar Hole, through which they throw and scatter their Seed; the Root is smaller than that of the Rampions, more fibrous, and more wreathed or winding: Mr. Ray found it growing upon the Heaths near to the *Span* in the lower *Germany*, with a white Flower, and upon the Hills and Eminences near to *Geneva*, with a blue Flower: It grows not naturally, he says, to his Knowledge, in *England*.

Bellflower with Peach-Leaves, and a full blue Flower, *Campanula persicifolia, flore ceruleo pleno*.

Bellflower with Peach-Leaves, and a white Flower, *Campanula persicifolia, flore albo*. *Eyset.* This is the *Campanula angustifolia, alba*, narrow-leaved white Bellflower of *J. B.* 2. 803.

Bellflower with Peach-Leaves, and white double Flowers, *Campanula persicifolia, flore albo, pleno*.

The greater narrow-leaved Bellflower of the Woods, with a large Flower, *Campanula nemorosa, angustifolia, magno flore, major*: This is the *Rapunculus nemorosus, angustifolius, magno flore, major*, or the greater narrow-leaved Rampions of the Woods, with a large Flower, of *C. B. Pin* 93. and the *Rapunculus nemorosus* 11, or the second Rampions of the Woods, of *Tabernemontanus*. *Icon.* 411.

The smaller narrow-leaved Bellflower of the Woods, with a large Flower, *Campanula nemorosa, angustifolia, flore magno, minor*: This is the *Rapunculus nemorosus, magno flore, minor*, or the lesser Rampions of the Woods, with a great Flower, of *C. B. Pin* 93. and the *Rapuntium sive Erinus magno flore* of *Columna*. *Part.* 2. 24.

Narrow-leaved Bellflower of the Woods, with a small Flower, *Campanula nemorosa, angustifolia, parvo flore*: This is the *Rapuncu-*

lus nemorosus, angustifolius, parvo flore, or the narrow-leaved Rampions of the Wood, with a small Flower of *C. B. Pin* 93. and the *Rapunculus nemorosus* 111 *Tabernemontanus*. *Icon.* 412.

Bellflower, with a smaller Flower of a whitish Colour, and more branched, *Campanula flore minore, albicante, ramosior*. *Morison. Hist. Oxon. Part.* 2. 456. *Erinos major, Fabii Columnæ, Rapunculo affinis*. *J. B.* 2. 799. *Erinus Nicandri & Dioscoridis*. *Col. Phyto.* 101.

The Root is fleshy, and equals in bigness a small Radish, of a white Colour, an agreeable sweet Taste, with some Sharpness or Acidity, and abounds with a milky Juice; the first Leaves, which spring immediately from the Root in the beginning of the Spring, are like to those of Basil, but smaller, toothed about the Edges like a Saw, a little hairy upon their upper Side and green, but smooth underneath, and of a more whitish Colour; it afterwards sends up several Stalks a Foot or more in height, according to the Temperature of the Season and the Climate or Place of Growth, which are adorned with Leaves without Footstalks, alternately disposed, much longer and narrower than the first, and less indented, so that to see this Plant first without a Stalk, and afterwards with one, one would not conclude it the same, for the first Leaves which preceded the Stalk wither and decay, and are no longer to be found; from the Bosom of the Leaves some little Branches shoot, whereon, as likewise upon the Stalks, the Flowers rise in the Month of *May*, supported by short Footstalks, they are hollow, divided into five Segments, of a whitish Colour, and also purplish, having within a Pointal which splits into three crooked Divisions; the Seed is of a dusky Colour, small and flat, and of a sour Taste, and is ripened in the Months of *June* and *July*, when it is dispersed and scattered thro' the Holes of the several Cells; the whole Plant, when broken, emits a milky Juice: *C. Bauhin* is of opinion, That this Species is the same with the *Rapunculus esculentus vulgaris*, or common Garden Rampions, and Mr. Ray agrees with him, the Description in every Circumstance suiting, as he says, except in the

the Colour of the Flower, which often varies, according to the Difference of the Climate or Soil.

It is not certainly known what Plant among all those we now have, is the true *Erinos* of *Dioscorides*, which he tells us grows near to Fountains and Rivers, bears Leaves like those of Basil, but smaller, Flowers of a white Colour, and black Seed, of a sharp or sour Taste; the whole Plant abounds with a milky Juice; in some Measure this agrees with the preceding Description.

Bellflower with an eatable Root, and a blue Flower, *Campanula esculenta*, flore caeruleo. *H. Lugd. Bat.* This is the *Rapunculus esculentus* of *C. B. Pin. 92.* The *Rapunculus vulgaris campanulatus* of *J. B. 2. 795.* and the *Rapunculum* of *Dodonæus. Pempt. 165.* Common Rampions, or Garden Rampions.

The Root of this Species is sometimes found single, sometimes branched, and of a white Colour: The Stalk is two Foot and a half in height, slender, hairy, angular and streaked, and is adorned with narrow sharp-pointed Leaves without Footstalks, disposed in no regular order, somewhat broad at the Base, and narrowing to the Extremity; so gently indented round the Edges, that the Incisions are scarce perceptible: The Stalk towards the Top divides into Branches, which shoot from the Bottom of the Leaves; at the Tops of the Stalks and little Branches the Flowers stand upon long Footstalks, deeply cut into five Segments, each whereof is streaked with three purple Lines; in the middle of the Flower stands a Pointal divided into three crooked Parts, and encompassed with five slender and shorter Threads; the Colour of the Flower is a Blue inclining to a Purple; the Flower-Cup is composed of five little narrow sharp-pointed Leaves: Under the Flower, at the bottom of the Flower-Cup, is the Seed-Vessel, which consists of three Cells, containing a great Number of small and shining Seeds: The whole Plant abounds with a milky Juice, as do all the other Bellflowers: The Root, which is white and of a sweet Taste, is much used in Sallads: It grows wild near to Ditches, and in unmanured Grounds, and is likewise cultivated in Gardens for Sallading.

Bellflower with an eatable Root, and a whitish Flower, *Campanula radice esculenta, flore candidante. H. L. Bat.* This is the *Rapunculus esculentus, flore candidante*, of *C. B. Pin. 92.*

The smaller American Bellflower, with stiff Leaves, and a white Flower, wide-spread and expanded, *Campanula minor, Americana, foliis rigidis, flore albo, patulo. H. L. Bat.* This is the *Trachelium minus, Americanum, foliis rigidioribus, flore albo, patulo*, or the lesser American Throat-wort, with stiff Leaves, and a white expanded Flower, in the Catalogue of Plants in the Royal Garden at Paris.

The lesser Mountain Bellflower, with Flowers growing in a pyramidal Spike, *Campanula Alpina minor, forum spicâ pyramidata: The Rapunculus sive pyramidalis minor*, or the lesser pyramidal Rampions of *C. B. Prodrom. 32.*

Rough or hairy Bellflower with a Daisie-Leaf, *Campanula hirsuta, bellidis folio. Pluk. Phytog. Tab. 153. Fig. 5.*

Blue Mountain Bellflower, with a Flax-Leaf, *Campanula Alpina, linifolia, caerulea. C. B. Prodrom. 34. Botan. Monspel.*

Rare flax-leaved Bellflower, with a blue Flower, *Campanula linifolia, rara, flore caeruleo. J. B. 2. 797.*

Dwarf, creeping Mountain Bellflower, with the largest Flower, *Campanula Alpina, pumila, repens, maximo flore.*

Rock Bellflower of Candy, with a Daisie-Leaf, and a great Flower, *Campanula Cretica, saxatilis, bellidis folio, magno flore: This is the Trachelium saxatile bellidis folio, caeruleo flore, Creticum*, or Rock Throat-wort of Candy, with a Daisie-Leaf, and a blue Flower, of *Bocconi. Mus. Part. 2. 76. Tab. 64. Barr. Icon.*

The smaller, common round-leaved Bellflower, *Campanula minor, rotundifolia, vulgaris. C. B. Pin. 93. Campanula parva, anguillara Cantabrica. J. B. 2. 796. Campanula sylvestris, minima. Dod. Pempt. 167.*

It has a white Root, somewhat thick, moderately fibrous, and of a sweetish Taste; the Leaves which shoot first are in some Measure like to the first smaller Leaves of the March Violet, lesser, cornered, and in some little Time appear jagged like the Ivy-Leaf; they stand upon Footstalks half an

Inch

Inch or an Inch in length : But the Leaves which deck the Stalk are long, narrow, sharp-pointed ; their Edges even and smooth, and have no Footstalks ; the Stalk rises sometimes to the height of a Foot, it is round, smooth, of a dark green Colour, and set with Leaves irregularly disposed : The Flowers stand at the summit of the Stalk, they are of a blue Colour, divided into five Segments, and pendulous, enclosed in a Flower-Cup, which is cut into five long narrow Segments ; in the Middle of the Flower are the Stamina or Threads, and four little white Leaves which bend inwards, to the Centre of the Flower.

The lesser, common, round-leaved Bellflower, with white Flowers, *Campanula minor, rotundifolia, vulgaris, floribus candidis*. C. B. Pin. 93.

The lesser round-leaved Bellflower, with Flowers standing at the Top of the little Stalks, *Campanula minor, rotundifolia, flore in summis cauliculis*. C. B. Pin. 93. This is the *Rapunculus sylvestris, flore ex purpureo candicante*, or wild Rampions, with a Flower from a purple Colour inclining to a White, of *Tabernemontanus*. Icon. 410.

The lesser round-leaved Mountain Bellflower, *Campanula Alpina, rotundifolia, minor*. C. B. Prodom. 34. *Campanula minor, rotundifolia, aliera*, C. Bauhin, another small round-leaved Bellflower of C. Bauhin. J. B. 2. 797. *Campanula minor, Alpina, rotundioribus imis foliis*, or the lesser Mountain Bellflower, with its lower Leaves of a round Shape, of *Clusius*. Hist. CLXXIII.

The smallest round-leaved Bellflower, *Campanula rotundifolia, minima*. C. B. Pin. 93. Prodom. 34. J. B. 2. 797.

Ivy-leaved Bellflower, *Campanula cymbalaria foliis, vel folio hederaceo*. C. B. Pin. 93. *Campanula folio hederaceo, species Cantabrica anguillara*. J. B. 2. 797.

It is a very tender Plant, with a small, whitish stringy Root, and slender Stalks, a Hand-breadth, or a Hand-breadth and a half in length, deck'd with Leaves of a pleasant green Colour, like those of the Ivy or the *Cymbalaria*, cornered, having sharp Angles, and long Footstalks ; the Flowers stand singly, each upon its proper Footstalk, which is somewhat long, and slender as a Thread ; they are jagged about

the Brims, and of a blue Colour ; sometimes they shoot from the Top of the Stalk, sometimes from its Sides ; it grows plentifully upon the wet Banks of Rivers in the western Parts of England : Mr. Ray says, he has found it likewise in the northern Parts near to *Sheffield*.

Bellflower with Thyme-Leaves, *Campanula Scipillifolia*. C. B. Pin. 93, Prodom. 35. J. B. 2. 816.

Broad-leaved Mountain Bellflower, with a black Flower, *Campanula Alpina, latifolia, pullo flore*. C. B. Pin. 93. Prodom. 33.

The lesser annual Bellflower, with insected Leaves, *Campanula minor, annua, foliis incis. Morison. Hist. Oxon. Part. 2. 458. Rapunculus minor, foliis incis.*, the lesser Rampions, with cut Leaves. C. B. Pin. 92. *Alfne oblongo folio, serrato, flore caruleo*, or Chick-weed with an oblong indented Leaf, and a blue Flower, J. B. 3. 367. *Erinos Fabii Columna, minor*. J. B. 2. 799. *Erini five Rapunculi minimum genus*. Col. Phytob. 28.

The lesser annual Bellflower, with insected Leaves, and a white Flower. *Cat. Hort. Amstel.*

Campanula rotundifolia, Caietana, longius radicata. Boccon. Rarior. Plant. 54.

Small round-leaved Bellflower, with a large, blue, pentagonal Flower, *Campanula parva, rotundifolia, flore caruleo, pentagono, grandis*, of Ray. Hist. 741. *Campanula saxatilis, rotundifolia, hispida, flore caesio, amplo, Italica*. Barrelier. Icon.

Bellflower with the Leaves of the lesser Arabian Mustard or Turkey Cresses, *Campanula drabe minoris foliis*. C. B. Pin. 94. *Rapunculi genus, folio serrato rotundiore*, or a kind of Rampions, with a rounder indented Leaf. J. B. 2. 798.

Rough or hairy Bellflower, with a Basil-Leaf, encompassing the Stalk, and a pendulous Flower, *Campanula hirsuta, ocyimi folio, caulem ambiente, flore pendulo*. Bosc. Rarior. Plant. 83.

Narrow-leaved, Dwarf-Bellflower of Portugal, with one single Flower, *Campanula, angustifolia, pumila, monanthos, Lusitanica*.

Upright Bellflower of the tilled Grounds, *Campanula arvensis erecta*. H. L. Bat. Onobrychis arvensis, vel Campanula arvensis, erecta, Saint-foin of the Fields, or upright Bell-

Bellflower of the Fields. *C. B. Pin.* 215. *Pentagonia, viola pentagonia. Tabern. Icon* 316. *Viola arvensis*, or the field Violet of the same Author. 304.

From a small, white, woody, and single Root, yet branching into several large Fibres, it sends up weak slender Stalks, a Span or more in length, branched from the Bottom, and deck'd with soft oblong Leaves, slightly indented, round, at the Extremity, and curled; from whose Bosoms the Flowers rise, of a beautiful Purple, inclining to a violet Colour, divided into five Segments, which resemble so many Leaves, and at the Setting-Sun contract and fold into a pentagonal Figure, like the winged Part of an Arrow, from whence by some it is called the *Viola pentagonia*, or five cornered Violet; the Centre of the Flower is white; in the Middle stands a three pointed Pointal, and the five white Threads lie concealed within its Tube; the Base of the Flower is encompassed with five narrow green Leaves instead of a Flower-Cup, which afterwards crown the square Seed-Vessel, which encloses small, round, and flat Seeds, of a shining Colour when ripe; the whole Plant abounds with a milky Juice; in foreign Countries it grows plentifully among the Corn.

Bellflower, or the pentagonal Violet, with an oblong and a broader Leaf, *Campanula seu viola pentagonia, folio oblongo, latiori*, of *Morison. H. R. Blef.*

In *Mr. Ray's* Opinion, this is only a Variety of the preceding.

Bellflower of the Fields, lying stretched upon the Ground, *Campanula arvensis, procumbens*; *Campanula arvensis minima*, the smallest Field Bellflower of *Dodoneus. Pempt.* 168. *Avicularia Sylvii quibusdam*, according to *J. B.* 2. 800.

Upright Bellflower of the Fields, with a white Flower, *Campanula arvensis, erecta, flore albo*; the *Onobrychis arvensis vel Campanula arvensis, erecta, flore albo*, in the Catalogue of Plants in the Royal Garden at *Paris*.

The lesser Field Bellflower, with a larger Husk, *Campanula arvensis minor, siliqua ampliori*; the *Speculum Veneris minus*, or the lesser *Venus Looking-Glass* of *Gerard*, cor-

rected by *Johnson* 439. and of *Parkinson. Theat.* 1331.

From a small woody Root it sends up a straight Stalk, two or three Inches, sometimes a Foot, high, according to the Nature of the Soil it meets with; this Stalk is crested or angular, and hollow, and is deck'd with little longish Leaves crumpled or sinuated about the Edges; from the Bosom of those Leaves towards the Top of the Stalk, sometimes lower, shoot little Branches, bearing little winged Cods, at the Tops whereof stand small purple Flowers, of little or no beauty, encompassed with five little green Leaves; when the Flowers are decayed, the Cods become much larger, and contain a small yellowish Seed, and still retain at their Tops the five longish green Leaves which encompassed the Flower; it is an annual Plant, and grows in plenty in *England* among the Corn: *Johnson* says, he has found it growing among the Corn in *Chelsea* Fields.

The five cornered Bellflower of *Thrace*, with a very large Flower, *Campanula pentagonia, flore amplissimo, Thracica*: This is the *Speculum Veneris, flore amplissimo, Thracicum*, or *Venus Looking-Glass* of *Thrace*, with a very large Flower of *Ray. Hist.* 742.

Thorough-leaved, pentagonal Bellflower, *Campanula pentagonia, perfoliata. Morison. Hist. Oxon. Part. 2.* 457. This is the *Onobrychis peregrina, perfoliata, folio rotundiore*, in the Catalogue of Plants in the Royal Garden at *Paris*.

Bellflower of *Candy*, with Stalks lying flat upon the Ground, infected Leaves, and an oblong Flower, *Campanula Cretica, caulibus supinis, foliis incis, flore oblongo*.

Bellflower of *Candy*, growing in the Fields, and bearing a large Flower, *Campanula Cretica, arvensis, flore maximo*.

Bellflower of *Candy*, with longer infected Leaves, and a great Flower, *Campanula Cretica, foliis longioribus, incis, flore magno*.

Bellflower of *Candy*, with Stalks lying flat upon the Ground, and a very large Flower, shaped like a *Bason*, *Campanula Cretica, caulibus supinis, flore maximo, pelvisformi*.

Bellflower of *Candy*, with a roundish Leaf, and a small Flower, *Campanula Cretica, folio subrotundo, flore parvo*.

Bellflower with Leaves deeply infected, and a hard Fruit, *Campanula foliis profunde incisis, fructu duro*: The *Medium* of *Dioscorides*, according to *Ranwolf*, 284. Syrian Bellflower.

This Plant very much resembles the *Viola Mariana*, nor is it easily distinguished, except by the Leaves, which are more deeply cut and infected, like those of Endive; the Flowers too are more expanded, and divided into eight Segments circularly disposed, in which, according to Mr. Ray, it not only differs from the *Viola Mariana* or Coventry Bells, but from every other Species of the Bellflower, which are commonly divided into five Segments only, so that he doubts whether it ought to be referred to to this Genus: *Ranwolf* says it has many long and narrow Leaves, rising from the Root, which is somewhat great and long, very like those of the small Rib wort Plantain, but more infected, and hairy also, but upon the Stalks the Leaves are smaller, and not at all cut; the Flowers are of a purplish Colour; the Seed he could not observe, it not being ripened; he found it growing at the Foot of mount *Libanus*; the Root has a more sharp Taste than the Seed: This Species is described by *Parkinson* under the Title of *Viola Mariana peregrina*.

The *Medium* is thus described by *Dioscorides*: It grows, says he, upon Rocks, and in shadowy Places, bears Leaves like those of the Iris or Flower-de-Luce; and a large round Flower of a purple Colour; the Stalk rises three Cubits in height; the Seed is small, like that of the *Crocus* or Bastard-Saffron; the Root is about a Span in length, and pretty thick, and of a sharp astringent Taste. This short Description, in *Dale's* Opinion, agrees more to the Species last described, which is more probably the true *Medium* of *Dioscorides*, than to the *Viola Mariana* of *Matthiolum*, which he gives us for it.

Bellflower with Leaves deeply cut, and a hard Fruit, the whole Plant being covered with a hoary and woolly Down, *Campanula foliis profunde incisis, fructu duro, tomentosa tota & incana*.

Rock Bellflower, having its lower Leaves like those of the Daisie, and the rest like

those of the Money-wort, *Campanula saxatilis, foliis inferioribus bellidis, ceteris nummularia*.

Rock Bellflower, having its lower Leaves like those of the Daisie, and the rest like those of the Money-wort, somewhat hairy notched, and as it were wrinkled, *Campanula saxatilis, foliis inferioribus bellidis, ceteris nummularia subhirsutis, crenatis, ac veluti rugosis*.

Rock Bellflower of Greece, with a Bugle-Leaf, *Campanula Graca, saxatilis, folio bugula*.

Rock Bellflower of Greece, with a Ragwort-Leaf, *Campanula Graca, saxatilis jacobea folio*.

Upright oriental Bellflower, with narrow, oblong Leaves, deeply notched, *Campanula orientalis, erecta, foliis oblongis, angustis, profunde crenatis*.

Dwarf, creeping Bellflower of the East, with a large Flower, *Campanula orientalis, pumila, repens, flore magno*.

Oriental Bellflower, bearing the Form and Appearance of the smallest Sea-Lavender, and an expanded Flower, *Campanula orientalis, Limonii minimi facie, flore patulo*.

The greatest oriental Bellflower, with Flowers standing many together in knots at the Angles of the Leaves with the Stalk, *Campanula orientalis, maxima, floribus conglomeratis in foliorum alis*.

Bellflower of Mount Olympus, with curled Ivy-like Leaves, *Campanula foliis cymbalaria crispis, montis Olympi*.

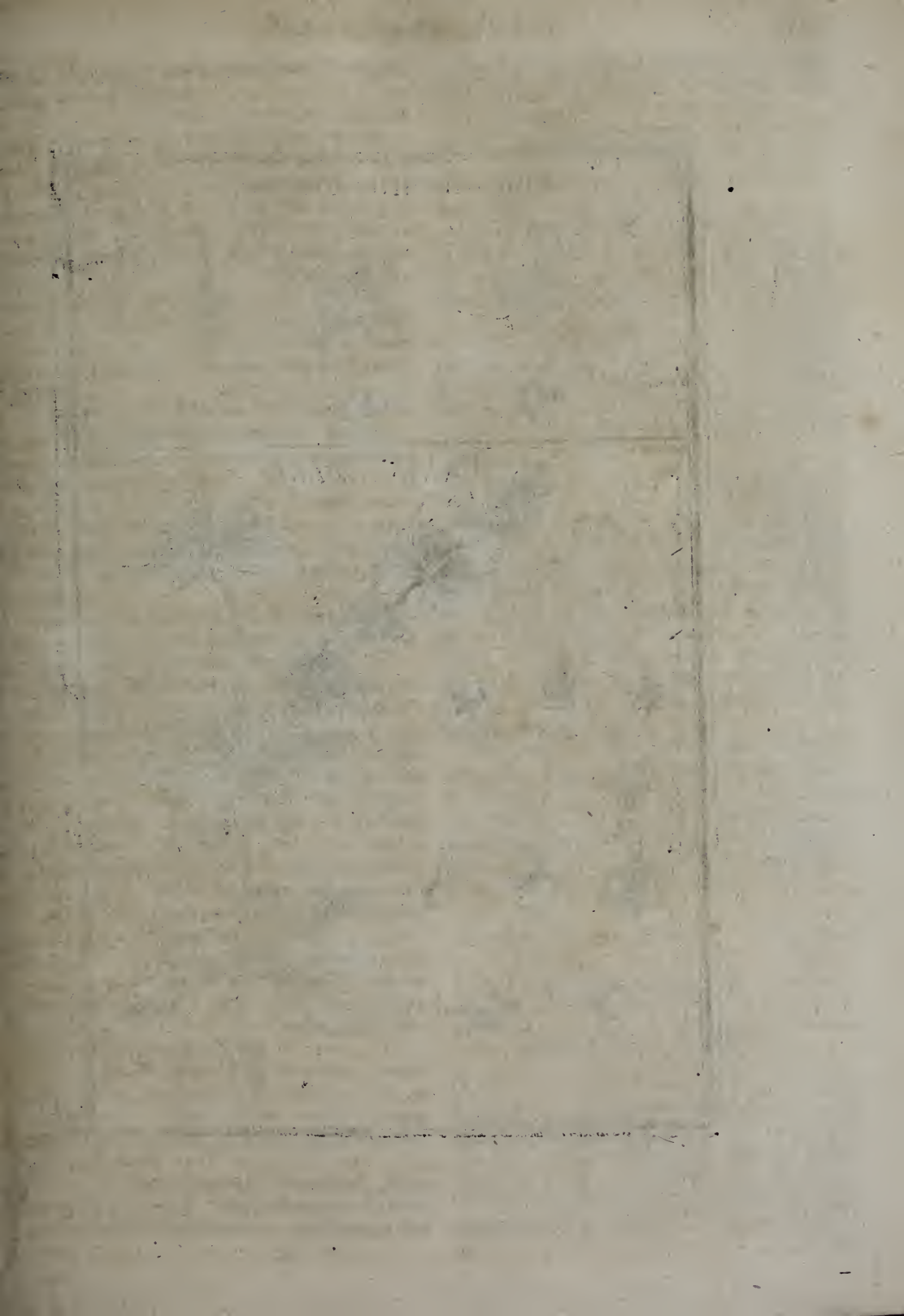
Oriental Bellflower, with Moth-mullin Leaves, somewhat hairy or rough, *Campanula orientalis, foliis Blattaria, subhirsutis*.

Upright oriental Bellflower, with a Leaf like that of Jack-by-the-Hedge, and a white pyramidal, or steeple Flower, *Campanula orientalis, erecta, alliarie folio, flore albo, pyramidato*.

Rock oriental Bellflower, with Ivy-like Leaves, and a large Flower, *Campanula orientalis, saxatilis, foliis cymbalaria, flore magno*.

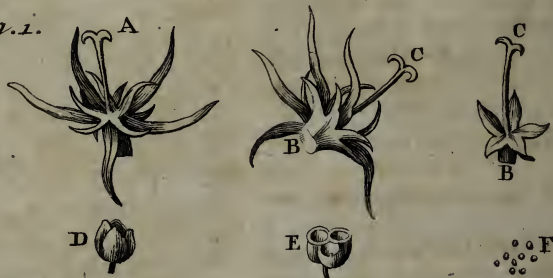
Oriental Bellflower, bearing one Flower only, and a Campion-Leaf, *Campanula orientalis, monanthos, lychnidis folio*.

Oriental Bellflower, having its Leaves cut into larger and curled Notches, and a bluish expanded Flower, *Campanula orientalis,*



Rapunculus. *Rampions.*

Fig. 1.



Rubia. *Madder*

Fig. 2.



calis, foliorum crenis amplioribus & crispis, flore patulo, subcaruleo.

Oriental Bellflower, having the Notches of its Leaves larger and curled, and a white Flower wide-spread and expanded, *Campanula orientalis, foliorum crenis amplioribus & crispis, flore patulo, albo*; a Variety of the former.

Oriental Bellflower, with a long, stiff, and rough Leaf, and a Flower standing upright, *Campanula orientalis, folio longo, rigido, aspero, flore sursum spectante.*

Silver, Rock Bellflower of the East, with a Leaf like that of the Stock Gilly-flower, *Campanula orientalis saxatilis, argentea, leucis folio.*

Narrow-leaved oriental Bellflower, with a little Head-like that of the red Poppy or Corn-rose, *Campanula orientalis, angustifolia, capitulo papaveris rhæodos.*

Oriental Bellflower, with Flowers collected into round Heads or Knots, a narrower Leaf, and a blue Flower, *Campanula orientalis, sphaerocephalos, folio angustiori, flore caruleo.*

Oriental Bellflower, with Sneezewort Leaves, and an oblong Flower, *Campanula orientalis, foliis parmice, flore oblongo.*

Oriental Bellflower, with Flax-Leaves and a large Flower, *Campanula orientalis linifolia, flore magno.*

Narrow-leaved, dwarf oriental Bellflower, with blue Flowers, all disposed in one Rank or Order upon one Side, *Campanula orientalis, angustifolia, pumila, floribus caruleis, uno versu dispositis.*

Narrow-leaved, dwarf oriental Bellflower, with white Flowers, all disposed in one Rank, *Campanula orientalis, angustifolia, pumila, floribus albis, uno versu dispositis*; a Variety of the former.

The greatest oriental Bellflower, somewhat hairy, with a great purplish Flower, *Campanula orientalis, maxima, subhirsuta, flore maximo, purpurascens.*

The greatest oriental Bellflower, somewhat hairy, with a great Flower of a white Colour, *Campanula orientalis, maxima, subhirsuta, flore maximo, albo*: 'Tis a Variety of the former.

Narrow-leaved oriental Bellflower, with many Stalks, and a small Flower, *Campanula orientalis, multicaulis, angustifolia, flore parvo.*

The highest oriental Bellflower, with a small pyramidal Flower, *Campanula orientalis, altissima, flore parvo, pyramidato.*

Oriental Bellflower, with snipt or infected Leaves, and a small double Flower, *Campanula orientalis, foliis incis, flore minimo & multiplici.*

The *Campanula* had its Name from the Form of its Flower, which imitates the Shape of a Bell. In my Elements of Botany, I distinguished the *Campanula* from the *Medium*, from the different Number of its seminal Cells; but I have since discovered that the Fruit of certain Species of the Bellflower is divided sometimes into three, sometimes into five Cells or Apartments.

There are but few of the Bellflowers of any use in Physick.

The *Campanula vulgarior, foliis urticae vel major & asperior* of C. B. &c. The *Trachelium* of the Shops, or the great Throatwort, as it is possessed of an astringent and drying Quality, especially the Root, is recommended as useful in all Inflammations and Ulcers of the Throat and Mouth, in the Swellings, or as it is called, the falling down of the *Uvula*, and a Squinancy; and may without doubt be used with Success in all other Ulcers, because of its notable drying Faculty.

The *Campanula foliis profunde incis, fructu duro*; the *Medium* of *Dioscorides*, according to *Rauwolf*: The Root of this Species stops the menstrual Flux, but the Seeds are *Emmenagog*, to use a barbarous Word, or provoke the Courses, according to the Testimony of *Dioscorides. Lib. 4. cap. 18.*

TABLE XXVIII. Fig. I.

GENUS II.

Rapunculus, Rampions;

IS a Plant, with a Flower A of one single Leaf, in its Form approaching near to the Shape of a Bell, but so expanded and cut, that it shows or represents the Figure of a Star; its Pointal C is commonly split into two horned Divisions; and its Flower-Cup B, changes into a Fruit D, which

which is divided into three feminal Cells E, enclosing for the most Part small Seeds F.

Its Species are,

Spiked Rampions, *Rapunculus spicatus*. C. B. Pin. 92. *Rapunculus spicatus* five comosus, *caruleus*, spiked Rampions with a blue Flower. J. B. 2. 109. *Rapunculum Alopecuron*, Fox-tail Rampions. Dodon. Pempt. 165.

The Root, which both in bigness and taste resembles that of the common Rampions, sends up Leaves like those of the March Violet, hanging upon long Footstalks, sometimes found spotted with black, tho' those which adorn the Stalk, which is about two Foot in height, hollow, angular, and full of a milky Juice, are oblong and narrow: At the Top of the Stalk stands a spiked Head or Bush of Flowers; of a beautiful Blue, or a purple-violet Colour, composed of many little Horns, divided at the Base into arched Segments, which are succeeded by little Heads or Husks, of a roundish Shape, or somewhat angular, like to those of the common Rampions, but smaller, standing closely conjoined at the Top of the Stalk, containing many minute and small Seeds, of a shining brownish Colour: Mr. Ray first discovered it near to the Spaw in Germany, afterwards in the mountainous Parts near to Geneva, but never in England.

Spiked Rampions, with Flowers of a deep violet Colour, and Leaves marked with black Spots, *Rapunculus spicatus*, *flore saturate violaceo*, *foliis nigris maculis notatis*. C. B. Pin. 92. This is the *Rapunculus spicatus* five comosus, *folio maculato*, spiked Rampions with a spotted Leaf, of J. B. 2. 809.

Spiked Rampions with a white Flower, *Rapunculus spicatus albus*. C. B. Pin. 92. The *Rapunculus spicatus* five comosus, *albus* of J. B. 2. 809.

Spiked Rampions with a yellowish Flower, *Rapunculus spicatus flore flavescente*.

Rampions with an oblong Leaf, and a round Head or Spike of Flowers, *Rapunculus folio oblongo*, *spica orbiculari*. C. B. Pin. 92. This is the *Rapunculus flore globoso purpureo*, Rampions with a round purple Flower of J. B. 2. 810. and the *Rapunculum cornicula-*

tum, montanum, horned, Mountain Rampions of Columna. Part. 1. 224.

The crooked little Horns of the Flowers circularly disposed above the five green Leaves which stand at the Top of the Stalk, and serve as it were for a Base, form a round globular Head, of a bluish-purple Colour: These, at their first rise from their Flower-Cups, are of an orbicular Shape, and about the thickness of a bitter Vetch, and afterwards end in a little crooked Horn, entwining with one another, and bending or nodding towards the Centre; as they ripen and grow to maturity, they shoot out another more slender and not half so long, with a triple Fork at the Extremity, this is the Style or Pointal; then at the lowest little knob or swelling divide into five Parts or slender Strings, imitating the Shape of a Distaff; within are lodged five little yellow Threads or Stamina; as the Flower ripens, the forked Extremities of the little Horns or Pointals, likewise grow bigger and wreathed, and these Jags or Divisions of the Flower are entirely separated from the internal Pointal, and continue upright and erected, till the little Husks or Seed-bladders begin to swell, then they bend downwards and fall off; when Cups like those of the common Rampions, crowned with five Points, succeed, which, when ripened, are perforated, and thro' the Holes of their Cells throw a yellow Seed, somewhat broader than that of the narrow-leaved Mountain Throatwort; this Species flowers in August; the Root is perennial, of a white Colour, pretty thick, strait, like that of the *Rapuntium*, but smaller, and very much branched; the lowermost Leaves are smooth, like those of the common Rampions, but rounder, nearly approaching in Form to those of the March Violet, or the pyramidal Bellflower, broad as the Nail of the greatest Finger, and bluntly toothed; the Leaves which adorn the lower Part of the Stalk, which is about a Foot in height and channelled, are about seven in Number, twice longer than the others, and alternately disposed, more like to those of the common Rampions, and more sharply toothed about the Edges; from the middle of the Stalk to the

the Top, stand two or three more narrow, and sharper-pointed Leaves at such Intervals, that they leave the Stalk naked; the whole Plant abounds with a milky Juice, and is of a pleasant agreeable Taste.

Candy Rampions, Rapunculus Creticus, seu pyramidalis altera. C. B. Pin. 94. This is the Rapunculus Creticus, petromarula of J. B. 2. 811. and the Petromarula, Rapunculus Creticus of Ferrante Imperato. 668.

This tender Plant bears Succory-like Leaves, large, and deeply infected, of a deep green Colour, shining underneath, sometimes tending to a Purple, and smooth: But when it springs from its Seed sown, its first Leaves are very like those of the black Violet, round, and either not at all, or very little, indented; it has many Stalks, two or four Foot high, round, and streaked or crested, which are deck'd with numerous Flowers of a purple Colour, like to those of the oriental Jacinth, standing so close together that they form a large Spike; they are succeeded by a Fruit or Husk enclosing very small Seeds; the Root is large, white, branched, and in Taste resembles that of the common Rampions; the whole Plant abounds with a milky Juice: It grows plentifully almost every where in *Candy* by Road-sides, among the Rocks, and upon Walls; it flowers there in the Beginning of the Summer, afterwards it wholly dries and withers, except the Root, which begins to shoot out Leaves in *October*, and continues green all the Winter.

Horned Rampions of the Alps, Rapunculus Alpinus, corniculatus. C. B. Pin. 93. and Prodrum. 33. This is the Rapunculo cornoso Spicato aliquatenus affinis ex Baldo of J. B. 2. 811.

The Root, which is tuberous, composed as it were of many little knobs, white, and about the thickness of a Finger (sometimes woody, of a pale Colour, and wrinkled or rugged, a Hand-breadth and a half in length, according to *Pona*) sends up sometimes but one, sometimes more Stalks, slender, streaked or channelled, and four Inches in height; the Leaves which shoot immediately from the Root with the Stalk, incline from a round to an oblong Figure, in form resembling those of the blue *Daisy*; commonly they are roundish and

notched, like those of the *Alliaria* or *Jack-by-the-Hedge*, but smaller, slender, of a deep Green, and stand upon Footstalks five or six Inches long; but those which grow upon the Stalk, are longer, narrower, and more deeply, yet more sparingly, infected, and have much shorter Footstalks; five or six whereof encompass the Tuft or Umbel which stands at the Top of the Stalk, composed of twenty or more Flowers, from a blue inclining to a purplish Colour, which shoot from Flower-Cups supported by short, broad, and streaked Footstalks; from each Flower-Cup one Flower rises, swelling into a Belly at its Origine, of an oblong Form, gradually narrowing, and notched at the Extremity, representing the Shape of a Glass Retort; upon the Middle of its Belly it has five Cuts or Gashes, which don't reach to the Neck, nor divide its whole Body to the Flower-Cup; in the Middle many little Filaments are lodged, one whereof is of such a length, that it stretches somewhat beyond the Neck, and when ripened appears forked at the Extremity; it was discovered growing among the Precipices of *Montebaldo*.

Rampions with a grassy Leaf, Rapunculus folio gramineo: This is the Rapuntium angustifolium, narrow-leaved Rampions of Columna. Part. 2. 26.

Rampions with blue, Scabious-like Heads, Rapunculus scabiosa capitulo caraleo. C. B. Pin. 92. This is the Scabiosa globularis quam ovinam vocant, the globular or round-headed Scabious, called Sheep-Scabious; of J. B. 3. 12. and the Rapuntium montanum, capitatum, leptophyllum, or Mountain Rampions with round Heads of Flowers, and thin or slender Leaves, of Columna. Part. 1. 227.

The Root is single, white, woody, shooting out some slender Fibres from its Sides, sometimes found divided into several Heads; the Stalks are one Foot or two in height, slender, hairy, found sometimes single, sometimes branched, and are adorned with numerous narrow Leaves, about the length of a Finger, soft, rough, or hairy, not infected, but somewhat waved or curled about the Edges, and are irregularly disposed without Footstalks: The Stalks and Branches terminate in long, smooth;

smooth, and streaked Footstalks, which sustain Flowers like those of the Scabious, encompassed or embraced by Flower-Cups composed of many little broad Leaves ending in a sharp Point: Mr. Ray thinks that these Flowers ought to be called composite or aggregated, for they consist of many little blue Flowers closely conjoined, which are indeed monopetalous, yet divided and expanded into five long Segments, each whereof has a proper and peculiar Footstalk, and is succeeded by a seminal Vessel filled with small shining Seeds; the whole Plant abounds with a milky Juice, in which respect too it ought rather to be ranked among the Rampions than the Scabious Plants; it is found frequently in England in sandy and barren Fallows, and flowers in Summer.

Rampions with white, Scabious-like Heads, *Rapunculus scabiosa capitulo albo. C. B. Pin. 92.*

Candy Rampions with a white Flower, *Rapunculus Creticus, petromarula flore albo.*

Oriental Rampions, with narrow indented Leaves, *Rapunculus orientalis, foliis angustis, dentatis.*

Narrow-leaved oriental Rampions, bearing many Stalks, all over flowered, *Rapunculus orientalis, angustifolius, multicaulis, totus floridus.*

Oriental Rampions, with a Leaf like that of the Meadow Bellflower, *Rapunculus orientalis, Campanula pratensis folio.*

Oriental Rampions, with longer Leaves, rough and rigid or stiff, *Rapunculus orientalis, foliis longioribus, asperis & rigidis.*

The highest oriental Rampions, with Leaves stiff and smooth, *Rapunculus orientalis, altissimus, foliis glabris & rigidis.*

Oriental Rampions, with a Leaf like that of the Dame-Violets, *Rapunculus orientalis, hesperidis folio.*

The *Rapunculus* borrows its Name from *Rapa*, as *Napellus* from *Napa*, because of the Resemblance of their Roots.

S E C T. IX.

Of Herbs, with a Flower of one single Leaf, shaped like a Bell, whose Flower-Cup changes into a Double or Twin Fruit.

T A B L E XXVIII. Fig. 2.

G E N U S I.

Rubia, Madder,

IS a Plant with a Flower of one single Leaf A, of the expanded Bell-shape, cut into several Segments, and commonly perforated C: Its Flower-Cup D changes into a Fruit E, composed of two Twin juicy Berries F, containing Seeds GH, for the most Part dimpled into a Navel-like Concavity I, *femine umbilicato*; the Disposition of the Leaves which grow in Whirls round the Stalk, may be added as another distinguishing Characteristick.

Its Species are,

Cultivated Dyers Madder, *Rubia Tinctorum sativa. C. B. Pin. 333.* This is the *Rubia sativa*, cultivated or Garden Madder, of *J. B. 3. 714.* and the *Rubia* of *Dodoneus. Pempt. 352.*

This kind bears long four-squared Stalks, rough, set with many little Hooks, and full of knots; from whence shoot out at every Joint, five or six oblong narrow Leaves, rough, infected into several hairy Notches round the Edges, apt to fasten and stick to the Cloaths, like those of the *Aparine* or Goose-Grass, but much larger, surrounding the Stalk in whirls, or in the Shape of a Star or Wheel; the Flowers grow upon the Tops of the Branches fastened by

by little Stems, cut into five or six Parts, disposed like a Star, of a yellow-greenish Colour, and when the Flower is faded, the little Cup wherein it stood changes into a Fruit composed of two Berries joined together, full of Juice, and of a black Colour when ripe, each whereof contains a Seed almost round, enclosed in a Membrane or Pellicle; the Roots are numerous, long, creeping, and full of Juice, stuffed with a hard woody Pith, of a sweetish Taste at first, but quickly after turning sharp and bitter; when fresh and new they are of a bright red Colour, but when old and dry, of a dark Red: This Plant is cultivated in rich Soils in many Parts of Europe, and the Root gathered in May and June, to dry it for keeping and transportation.

Madder is brought to us in three different Manners, and distinguished by the Names of Madder in the Branch, Madder in the Bundle, and Madder unbundled: The first Sort is brought to us in the Root, as it comes out of the Ground, without any other Preparation than that of being dried: The second Sort is that of Bunch-Madder, or such as is made into bundles; which is Madder in Branch, first freed from the Bark, and the Heart or Pith, then Ground by a Mill into a gross Powder, as we buy it: The third Sort is the Madder unbundled, that is, the branched Madder ground to Powder; but the bunched Madder, or that in bundles, is the best, which, for its Excellency when it is fresh, is made into Bales, or put up into Casks, of a pale Red, but as it grows older, increases its Colour to a fine Red; that of Zealand is esteemed the best for the Dyer's Use.

The greater wild Madder, *Rubia sylvestris*, *Monspessulana*, *major*. *J. B. 3. 715*.

The Leaves of this Species are smaller than those of the cultivated Madder, and of a dark Green, whereas those of the first are of a paler Green; in the Spring it shoots forth small yellow Flowers; and bears its Fruit in the Summer and Autumn, which continues upon it all the Winter, nor does the Plant itself wither and die, whereas the cultivated Madder perisheth yearly; it grows not only upon the Rock of *St. Vincent* near to *Bristol*, but also upon the Rocks

near to *Bedford*, and plentifully in the Hedges throughout all *Devonshire*.

Foreign Madder, with four Leaves shooting from the Joints, very rough, and of a shining Colour, *Rubia quadrifolia*, *asperirma*, *lucida*, *peregrina*, in *Herman's Catalogue* of the Plants in the Garden at *Leyden*.

The Leaves of this Sort are of a black shining Green, and the Flowers whitish: In other respects it agrees with the common Sort.

Shrub Madder of Candy, with thin Leaves, *Rubia Cretica*, *frutescens*, *tennisfolia*: This is the *Rubia arborescens*, or Tree-Madder, of *Prosper Alpinus*. *Exot. 110*.

Candy Madder, with a very large and rough Leaf, *Rubia Cretica*, *folio amplissimo aspero*.

All the Species of the Madder, hitherto known or discovered, have their Leaves disposed in whirls, or in the Shape of a radiant Star at each Joint of the Stalk; by which mark they are easily distinguished when they are neither in Flower nor Fruit; and from the other Plants which have the same common generical Characteristick, (*viz.* a Flower-Cup changing into a double Fruit,) by their Fruit which is full of Juice.

'Tis the Root of the first Species which is of common Use; chymically analyzed it yields abundance of thick Oil, Earth, and acid Phlegm, as also some Quantity of concremented volatile Salt, and urinous Spirit; so that its Virtues appear chiefly to depend upon a copious Sulphur joined with Salt Armoniack and Earth.

It is esteemed a vulnerary Plant, and is principally used in all Obstructions of the Spleen, Liver, and especially of the Womb; consequently of great Use in the Jaundice, Dropsy, an Obstruction of Urine, and to dissolve or attenuate thick and coagulated Blood, and in an Obstruction of the monthly Courses, which it strongly provokes: These its Virtues and Uses are confirmed by the Authority of *Dioscorides* and *Galen*, tho' some moderns will have it to be more astringent than aperitive, and recommend it to stop the hemorrhoidal and menstrual Flux, when excessive, and in Dysenteries; but frequent experience confounds

their Plea ; and as it is used by the Dyers in the Preparation of their red Colour, which it gives very bright, it must consist of very subtle Parts, fit to penetrate and open Obstructions; tho' at the same Time we do not deny but that it may partake of some Degree of Astringency.

TABLE XXIX. Fig. 1.

GENUS II.

Aparine, Cleavers or Goose-grafs,

IS a Plant with a Flower A, of the expanded Bell-shape; cut into several Segments; whose Flower-Cup B changes into a dry Fruit C G, covered with a thin Rind or Bark, and composed of two little round Husks D, containing each one Seed E, having upon one Side a Concavity or Hollowness that appears like a Navel F: The roughness of its Leaves, which shoot out five or more from each Joint, and surround the Stalk in whirls, or in the Form of a radiant Star, may be added as another Mark or distinguishing Characteristick.

Its Species are,

Common Goose-grafs, *Aparine vulgaris*. C. B. Pin. 334. The *Aparine* or Cleavers of J. B. 3. 713. and of *Dodonæus*. *Pempt.* 353.

It has many rough, square Stalks, slender, and full of Joints or Knots, climbing if they meet with any Prop, and stretching three or four Yards in height, and branched; the Leaves are rough, ending in a little prickly Point, and surround the Stalk at each Joint in whirls, standing five, six, or seven together; the Flowers rise, near to the Tops of the little Branches, from the Joints upon oblong, very slender, and thready Footstalks, of a white Colour, and are divided into four Segments; they are succeeded by a Fruit and Seed, such as we have already described: It grows commonly near to Hedges, sometimes among the Corn, and frequently in Gardens, where it is a Weed difficult to root out; it rises first out of the Earth with two large Leaves:

Fuchs's Figure of this Species is faulty, for it represents the Leaves notched.

The Stalks, Leaves, and Seed are so rough that they stick and cleave to whatever touches them.

Common Goose-grafs, with a smaller Seed, *Aparine vulgaris*, *semine minori*.

Goose-grafs with a Seed like unto a Coriander comfit, *Aparine semine Coriandri saccharati*. *Parkinson*. *Theat.* 567. This is the *Aparine fructu verrucoso*, Goose-grafs with a Seed full of wart-like Excrescences, in the Garden of *Dionysius Jonquet*. *Hort. Joncq.*

This Species is smaller than the common, the Leaves smooth, the Seed is warty, but not rough, so as to cling or stick to what touches it.

Portugal Goose-grafs with a prickly Fruit, *Asparine Lusitanica*, *fructu echinato*.

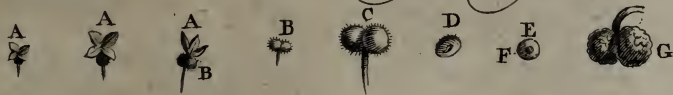
Goose-grafs with a smooth Seed, *Aparine semine levi*. *H. Reg. Par.* This is the *Aparine semine leviori*, or Cleavers with a smoother Seed, of *Ray* in his *Hist.* 484.

This is a smaller Plant than the first and common Sort, the Stalks are shorter, the Leaves smaller, less hairy, and of a paler Colour; the Seeds are not altogether smooth, yet less rough; it is found in the Fields about Cambridge among the Corn, in a chalky Soil.

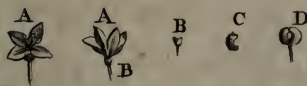
The lower, Mountain, broad-leaved Goose-grafs, *Aparine latifolia*, *humilior*, *montana*: This is the *Asperula sive rubeola montana*, odora, or the Sweet-smelling Woodroof of C. B. Pin. 334. The *Rubii accedens asperula quibusdam*, sive *Hepatica stellaris* of J. B. 3. 718. and the *asperula odorata*, flore albo, sweet-smelling Woodroof with a white Flower, of *Dodonæus*. *Pempt.* 355.

It creeps near to the upper Surface of the Earth, with a little slender Root full of Joints, shooting downwards some capillary Fibres; from whence rise slender square Stalks, a Hand-breadth or a Span in length, from each of whose Joints the Leaves shoot, surrounding the Stalk in whirls, broader than those of the common Goose-grafs, of a paler shining green Colour, and somewhat rough or hairy; near to the Top the Stalk divides into two or three little Branches, from whence the Footstalks shoot, sup-

Aparine. Cleavers or Goose-grass.



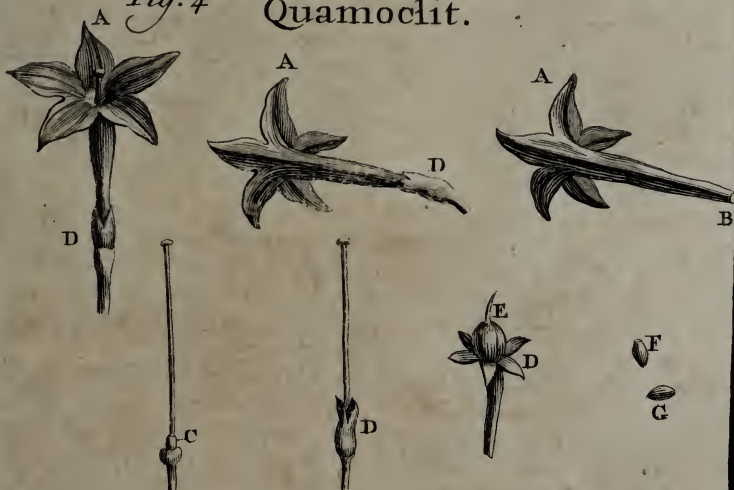
Gallium. Cheese-
: Rening.



Cruciata.
Crosswort.



Quamoclit.



supporting sweet-smelling Flowers, of a white Colour, in Form resembling those of the Valerian; the Seeds are small, and very rough, sticking to the Cloaths, not exactly round, but rather approaching to the Shape of a Kidney; it grows in open Woods almost every where, and flowers in May: *J. Bauhin* takes the Flowers of this Species to be composed of four Leaves, whereas they are single-leaved or monopetalous.

Low, narrow-leaved, Mountain Goose-grafs, *Aparine angustifolia*, *humilior*, *montana*.

Dwarf Goose-grafs with Stalks lying flat upon the Ground, and a blue Flower, *Aparine supina*, *pumila*, *flore ceruleo*: This is the *Rubia parva*, *flore ceruleo*, *se spargens*, little Madder, with a blue Flower, and its Stalks spread upon the Ground, of *J. B.* 3. 719.

The Root is oblong, slender, and capillaceous, of a red Colour, and hard and woody; the Stalks lie spread upon the Ground, full of Joints, of a reddish Colour, and square, rough, and sometimes branched, a Hand-breadth, seldom a Foot in length; at each Joint it shoots out small roundish Leaves, broad enough in proportion to the bigness of the Plant, encompassing the Stalk in the Form of a radiant Star, hairy, somewhat rough, and terminating in a very sharp Point; the Flowers stand at the Tops of the Stalks and little Branches amidst some few Leaves; they are small and of a blue Colour, or from a blue inclining to a purplish Colour; each Flower is succeeded by two Husks conjoined like a Pair of Testicles, containing a yellow Seed. *C. Bauhin* mistook the Flower of this Plant for a Flower composed of five Leaves, whereas 'tis certainly monopetalous or of one single Leaf, divided into four Segments; the Figure which represents it, in *The History of Plants*, printed at Lyons, under the Title of *Myagrum alterum*, minus, *Dalechampii*, is pretty exact, and tolerably well engraved, so that this last described Plant is not to be separated, nor reputed different from the *Asperula hexaphyllos*, *purpurea* of *C. B.* nor had *J. Bauhin* any reason to doubt it was not the same with the *Asterias* *sive* *Stellaria*. *Lugd.* seeing the Author

of *The General History of Plants*, printed at Lyons, assures, that its Leaves are narrower than those of the *Galium* or Cheese-runnet: *Histoire des Plantes qui naissent aux environs de Paris*.

Hoary Goose-grafs, growing upon the Sea-Coasts, with a purple Flower: This is the *Galium maritimum*, *hirsutum*, *flore rubro*, Cheese-runnet or our Ladies Bedstraw, growing upon the Sea Coasts, hairy, and bearing a red Flower, in the Catalogue of Plants in the Royal Garden at Paris.

The lesser Marsh Goose-grafs of Paris, with a white Flower, *Aparine palustris*, *minor*, *Parisiensis*, *flore albo*.

The Roots are slender, of a reddish Colour, and shoot out several capillary Fibres; the Stalks are about a Foot high, square, of a greyish Colour, the quarter of a Line in thickness, rough, and scarce firm enough to support themselves; at every Joint they are adorned with six or eight Leaves, disposed in the Form of a radiant Star, rough likewise, four or five Lines in length, and one broad, not so sharp at the Extremity, as at that part by which they adhere to the Stalk; from the Bosoms of those Leaves some short Branches shoot, which for the most Part are only scattered or dispersed Clusters, an Inch, or an Inch and a half in length, the Grains whereof are charged with white Flowers, one Line and a half large, and divided into four Segments, like those of the common Goose-grafs; the Flower-Cup is a rough Button with two Bellies, which afterwards becomes the Fruit.

The smallest Spanish Goose-grafs, *Aparine Hispanica*, *minima*.

Goose-grafs of Greece, like to the common Sort, with a very broad Leaf, *Aparine Græca*, *vulgari similis*, *folio latissimo*.

Rock Goose-grafs of Greece, hoary, with very thin slender Leaves, *Aparine Græca*, *saxatilis*, *incana*, *tenuifolia*: This is the *Galium montanum*, *Creticum*, or Mountain Cheese-runnet of Candy, of *Prosper Alpinus*. *Exot.* 166.

Rock Goose-grafs of Samos, broad-leaved, and hoary, *Aparine Samia*, *saxatilis*, *latifolia*, & *incana*.

The lesser annual Goose-grafs of Samos, with Flowers dwindling into slender Capillaments,

pillaments, *Aparine Samia, minor, annua, floribus in capillamenta acuminibus.*

The lesser and hoary oriental Goose-grafs, bearing many white Flowers, *Aparine orientalis, minor & incana, multiflora, flore albo.*

The *Aparine* or Goose-grafs is distinguished from the Madder by its dry Fruit, from the Cross-wort, by the Number of the Leaves which surround the Stalk at every joint, which are five or six; and from the Cheese-runnet or Ladies Bedstraw, by the Roughness or Downyness of its Leaves.

The first Species, which, according to Mr. Ray, is the *Aparine* or *Philanthropon* of *Dioscorides*, and the *Lappago* of *Pliny*, and the *Aparine* or Goose-grafs of the Shops, has many virtues ascribed to it: *Dioscorides*, who has described it pretty exactly, *Cap. 88. Lib. 3.* tells us, that the Juice of the Seed, Stalks and Leaves, is of use against the Bittings of Vipers, and of the Spider, called *Phalangium*; that drop'd into the Ear, it cures the Pain of that part; and that a Cataplasim of the bruised Herb with Axunge dissolves stumous Swellings; he adds, that the Country People use it as a Strainer, to clear their Milk of Hairs, Straws, or any such like Thing: *Matthioli* adds, that the Juice of this Plant is highly commended for the Cure of green Wounds, and of ulcerated Nipples; and that the distilled Water is of great use in a Dysentery; the Powder of the dried Herb strewed upon a fresh Wound stops the Flux of Blood; it is esteemed too as a Specific in the Jaundice.

Dr. *Needham* says, that the distilled Water, or the Infusion of the Herb in White Wine, is an excellent Remedy against the Stone and Gravel; and Dr. *Palmer* recommends the Decoction of it as of admirable Efficacy in a simple *Gonorrhoea*.

The sixth Species, *Aparine latifolia, humilior, montana*, which is the *Asperula* (see *Rubcola montana odora* of C. B. &c. The *Asperula* or Woodroof of the Shops, is of use in Obstructions of the Liver and Biliary Duct, consequently in the Jaundice, and in all Inflammations of the Liver; the Germans use it in their Wine as we do Burnet, to dispel melancholy, and exhilarate the Spirits.

TABLE XXIX. Fig. 2.

GENUS III.

Galium, Cheese-runnet or Ladies Bedstraw,

IS a Plant with a Flower A, of the expanded Bell-shape, cut into several Segments, whose Flower-Cup B changes into a Fruit D, composed of two dry Seeds, for the most Part shap'd like a Half-Moon C, its Leaves E, are neither rough nor napped with any Down, and shoot out five or six in Number in a radiant Form, or in whirle, from every Joint of the Stalk, which must be added to the other Characteristicks.

Its Species are,

Broad-leaved, branched, Mountain Cheese-runnet, *Galium montanum, latifolium, ramosum*: This is the *Mollugo montana, latifolia, ramosa*, broad leaved, branched, Mountain Ladies Bedstraw, of C. B. 334. The *Rubia sylvatica, levis*, or smooth Wood-Madder of J. B. 3. 716. and the *Mollugo* of *Dodonaeus*. *Pempt.* 354.

This Plant is very much branched; the Stalks are strait, smooth, round, and at great intervals have many knotty Joints; the Leaves are disposed in the Form of a radiant Star round the Joints, like those of the sweet-smelling Woodroof, and soft; the Flowers are white, and grow in such plenty upon the Tops of the Stalks, and the little Twigs, that they appear to stand in tufts; it grows in mountainous woody Parts, and springs up in the beginning of April; it is easily distinguished from every other Species of this kind by its Bigness, the smoothness of its Leaves and Stalks, the uprightness and roundness of its Stalks, and its Place of Growth.

Mr. Ray seems to be of Opinion, That the *Rubia arborescens Cretica*, or the Tree Madder of Candy, of *Prosper Alpinus*, in his *Exoticis*, is the same with this Species; the Stem is short, and about the thickness of a

Finger,

Finger, and sends out many Branches, &c. from the Tops whereof two or three little slender Twigs shoot; which divide into others, upon which, on both Sides, stand small whitish Flowers; the Root is of a reddish Colour; in other Marks, which are here omitted, it agrees with the above described Species.

Common, white Cheese-runnet, *Galium album, vulgare*: This is the *Mollugo montana, angustifolia, vel Galium album, latifolium*, narrow-leaved Mountain *Mollugo*, or broad-leaved; white Ladies Bedstraw, of C. B. Pin. 334. The *Galium album* of *J. B. 3. 721.* and the *Mollugo vulgarior herbariorum, Galium album quorundam*, according to *Lobel. Icon. 802.*

The Roots are woody, covered with a Bark of a deep Yellow, white within, and shoot downwards many little yellow Fibres; they send up several Stalks, three Cubits, sometimes more in length, weak, and stretching upon the Ground, if they find no Prop for support; they are slender towards the Root, and from thence turn thicker by little and little, as do most others of this kind, square, hollow, smooth, of a green Colour, and, if they grow in Places exposed to the Sun, sometimes they are found of a purplish Colour, brittle, have knotty Joints, with long intervals between, and branched, four little Branches shooting from each Joint, two of which are more remarkably large, and the two other smaller, standing lower at their Sides; the Stalks are surrounded at the Joints by eight Leaves, more or less, disposed Star-fashion, scarce a Finger in length, somewhat broad, sharp-pointed, of a deep Green, and smooth; the Flowers are very numerous, and rise from the Middle to the Top, from each Joint of the Stalks and little Branches, as it were in clusters; they are white, and divided into four sharp-pointed Segments; they are succeeded by two Seeds; it grows commonly near to Hedges, and in Ground full of Thorns and Brambles.

Yellow Ladies Bedstraw, *Galium luteum*. C. B. Pin. 335. This is the *Galium verum*, or the true Cheese-runnet of *J. B. 3. 720.* and the *Galium* of *Dodonæus. Pempt. 355.*

It has a slender creeping Root, which takes strong hold in the Ground, woody, and of a brownish Red; the Stalks are a Span, sometimes two Foot in length, slender, and somewhat hairy; in places exposed to the Sun, they are of a reddish Colour, and appear square; the Leaves surround the Stalk at the Joints in whirls; they are longer and narrower than those of the smooth wild Madder, of a dark shining Green, and stand nine for the most Part together at each Joint; from each Joint likewise two little Branches commonly shoot, upon which, as also at the Tops of the Stalks, the Flowers rise in clusters; they are of a yellow Colour, and divided into four Segments so disposed as to represent a Star, and are succeeded each by two conjoined Seeds; it grows commonly in dry pasturage Grounds, sunny Banks, and near to the Borders of Fields.

Ladies Bedstraw with a pale-coloured Flower, *Galium flore pallido. J. B. 3. 721.* Cheese-runnet with a yellowish Flower, *Galium flore flavescente.*

Mountain Ladies Bedstraw, with thin Leaves, and a Flower of a black or dark purple Colour, *Galium nigro-purpureum, montanum, tenuifolium. Col. Part. 1. 298.*

Ladies Bedstraw of the Fields, with a blue Flower, *Galium arvense, flore caeruleo*: This is the *Rubia caerulea, erectior elatiorve*, blue Madder, with higher and more upright Stalks, of *J. B. 3. 719*:

Annual Ladies Bedstraw of Portugal, with a yellow Flower, *Galium flore luteo, annuum, Lusitanicum. Vir. Lusitan.*

Ladies Bedstraw of Portugal, with small yellow Flowers, disposed in whirls, *Galium Lusitanicum, flore parvo, verticillato, luteo.*

Ladies Bedstraw growing upon Rocks, with a sky-coloured or bluish Leaf, *Galium saxatile, glauco folio. Boccon. Mus. Part. 2. Tab. 116.* This is the *Galium saxatile, glabro folio*, Cheese-runnet of the Rocks, with a smooth Leaf, of the same Author. *Pag. 172.*

Dwarf, and smallest Ladies Bedstraw of the Rocks, with its Stalks lying flat upon the Ground, *Galium saxatile, minimum, supinum & pumilum.*

The smallest Ladies Bedstraw of the Pyrenees,

rencees, bearing the Form and Appearance of a Moss, *Galium saxatile*, *minimum*, *Pyrenaem, musci facie*.

Ladies Bedstraw of the Rocks, with a very large and bluish Leaf, *Galium saxatile*, *folio peramplo*, *glauco*.

Thin-leaved, annual, Ladies Bedstraw of Candy, with a whitish Flower, *Galium Creticum*, *annuum*, *tenuifolium*, *flore albedo*.

The Ladies Bedstraw is distinguished from the Goose-grass by its Leaves, which are neither rough nor covered with a hairy Nap.

It is called *Gallium* or rather *Galium*, from γάλα, Milk, which it is esteemed to curdle.

Of all the above mentioned Species, that which is of most common Use is the *Galium Luteum*, or yellow Lady's Bedstraw, &c. It is vulnerary and detersive or cleansing; it is used in Catalogue as effectual in the Cure of an Epilepsy; some drink it after the Manner of Tea, as a Remedy against the Gout; the Syrup composed of its Flowers is very aperitive, and proper to provoke the monthly Courses of Women: *Tabernemontanus* tells us, that the Decoction of this Plant is an excellent Remedy against the dry Scab of little Children, used either by Way of Fomentation, or Bath; the Herb, or the Powder of the dried Herb, is recommended as useful in all Hemorrhagies or Fluxes of Blood, which it stops by its thickning and coagulating Faculty, and to cure Cancers or cancerous Ulcers; and we learn from *Dioscorides*, that its Flowers are not only endowed with these Powers, but that they were likewise ingredients in all Ointments against Burnings and Scaldings: Insolated or exposed to the Sun in a Glass with Olive-Oil, till it turns white, thus prepared, it is good to anoint the Feet of the wearied Traveller, and removes all Sense of Lassitude; the Decoction of the Herb produces the same Effect; he adds, that the Root excites to Venery, and provokes Lust: *Gerard* tells us, that the People in *Cheshire*, especially about *Nantwich*, where the best Cheese is made, use it in their Runnet, and esteem highly of that Cheese above all others made without it.

The *Galium album vulgare*, &c. has been commonly esteemed useless in Physick, yet

modern Experience attests it greatly beneficial in an Epilepsy; which we may believe upon the Testimonies of *Boccone* and *Tournesort*.

TABLE XXIX. Fig. 3.

GENUS IV.

Cruciata, Cross-wort,

THE Cross-wort differs in nothing from the Lady's Bedstraw and the Goose-grass, but in the Number of Leaves that it shoots from every Joint, which are four only F, disposed in the Form of a Cross.

Its Species are,

Rough or hairy Cross-wort, *Cruciata hirsuta*. *C. B. Pin.* 355. This is the *Cruciata* or Cross-wort of *Dodonæus*. *Pempt.* 357. and the *Galium latifolium*, *Cruciata quibusdam*, *flore luteo*, the broad-leaved Lady's Bedstraw, the Cross-wort of some Authors, with a yellow Flower, of *J. B.* 3. 717.

It has a creeping Root, shooting from the Joints many stringy Fibres of a yellowish Colour, which sends up several Stalks a Foot, sometimes more in length, square, hairy, slender and weak, and full of Joints, at each whereof stand four broad, hairy Leaves, bluntly pointed, and without Footstalks, disposed Cross-ways; the Flowers grow in whirls from the Bosoms of the Leaves, yet, if curiously observed, they don't rise from every Leaf, but from the Bosoms of the two opposite Leaves only; from whence shoot for the most Part three little Twigs charged with small yellow Flowers, divided into four Segments; each Flower is succeeded by two Seeds.

It is found commonly in *England* near to Hedges, and in thorny Brakes.

Smooth Cross-wort, *Cruciata glabra*. *C. B. Pin.* 335. This is the *Rubia quadrifolia*, *glabra*, *angustifolia*, or four-leaved, smooth, and narrow-leaved Madder of *J. B.* 3. 717.

This differs from the former, in that its Leaves are narrower, and smooth, yet not altogether so, for they are edged with a delicate

licate hairy Fringe; the Stalks are entirely smooth: *J. Bauhin* had it from *Padua*.

Broad-leaved and smooth Cross-wort of the *Alps*, *Cruciata Alpina*, *latifolia*, *lævis*: This is the *Rubia quadrifolia*, vel *latifolia lævis*, four-leaved or smooth broad-leaved Madder of *C. B. Pin.* 334. The *Rubia quadrifolia*, *Italica*, *hirsuta*, four-leaved, hairy, *Italian Madder* of *J. B.* 3. 717. and the *Rubia lævis Taurinensium*, or the smooth Madder of *Turin*, according to *Lobel. Icon.* 800.

This beautiful Species rises with Stalks two Foot in height, whose Joints are adorned with four Leaves, disposed in the Form of a Cross, in form resembling those of Plantain, nervous, sharp-pointed, soft, and somewhat hairy, two Inches long, and one in breadth; the Flowers are white, grow in whirls round the Joints, and stand supported by the Leaves.

It is found upon the Hills of *Piedmont* near to *Turin*, and elsewhere in *Italy*.

Cross-wort with Flowers growing or disposed in spread Tufts, *Cruciata floribus paniculatis nascentibus*: This is the *Rubia semine duplici*, *hispida*, *latis* & *hirsutis foliis*, Madder with a double and rough Seed, and with broad and hairy Leaves, of *Boccone. Rarior. Plant.* 10.

Mountain Cross-wort, thin-leaved, and smooth, *Cruciata Alpina*, *tenuifolia*, *lævis*.

Cross-wort of the *Pyrenees*, round-leaved, and hairy, *Cruciata Pyrenæica*, *villosa*, *rotundifolia*.

Smooth, broad-leaved, Cross-wort of *Portugal*, with a white Flower, *Cruciata Lusitanica*, *latifolia*, *glabra*, *flore albo*: This is the *Cruciata minor*, *glabra*, *flore molluginis*

albo, or the lesser, smooth Cross-wort, with a white Flower, like that of the *Mollugo* or *Lady's Bedstraw*, of *Barrelier. Icon.*

White, Marsh Cross-wort, *Cruciata palustris*, *alba*: This is the *Galium palustre*, *album*, or white, Marsh Cheese-runnet, of *C. B.* 335. and the *Galium album*, or white *Lady's Bedstraw* of *Tabernemontanus. Icon.* 151.

The smallest Cross-wort, *Cruciata minima*.

Shrub Cross-wort of *Candy*, with a white Flower, *Cruciata Cretica*, *fruticosa*, *flore albo*: This is the *Galium montanum alterum*, another Mountain *Lady's Bedstraw*, of *Prosper Alpinus. Exot.* 293.

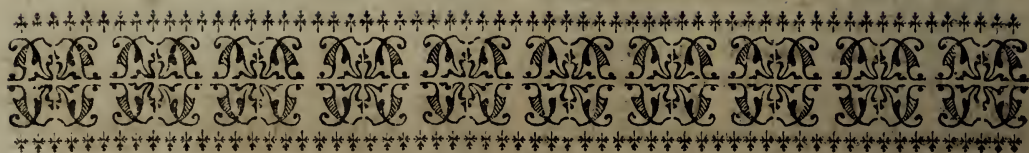
Upright, broad-leaved, and smooth, oriental Cross-wort, *Cruciata orientalis*, *latifolia*, *erecta*, *glabra*.

Oriental Cross-wort, with broad and somewhat hairy Leaves, and a purplish Flower, *Cruciata orientalis*, *latifolia*, *foliis subhirsutis*, *flore purpurascente*.

Oriental Cross-wort, with broad and somewhat hairy Leaves, and a bluish Flower, *Cruciata orientalis*, *latifolia*, *foliis subhirsutis*, *flore subcaeruleo*.

Oriental Cross-wort, smooth, and having its Stalks spread upon the Ground, *Cruciata orientalis*, *glabra*, *humifusa*.

It is the first Species which is commonly used; it is drying and astringent; and is esteemed an excellent Vulnerary, either taken inwardly, or externally applied; the Decoction of this Herb in Wine is recommended as a certain Cure for a Rupture, if the Disease has not been of a long standing; *Camerarius* says it likewise procures the Expectoration of viscid or clammy Humours lodged in the Chest.



THE COMPLEAT

HERBAL.

The Second CLASS.

Containing Herbs and Under-shrubs, that have a Flower of one single Leaf, in Form imitating the Shape of a Funnel, or a Wheel.

A Flower of one single Leaf, so shaped as to represent a Funnel, is what we call *Flos Infundibuliformis*, or a Funnel-shaped Flower: Of this Flower there are two Species; the Mouth, Brim, or upper Part of the one represents an inverted Cone, the other a Disk, or stretches out into a plain flat Surface; both terminate in a Tube or

hollow Pipe: The first is what is properly called the Funnel-shaped Flower; the second, as it spreads its upper Part into a flat Surface, bearing the Resemblance of a Salver, is from thence called *Hypocrateriformis*. The Wheel Flower consists but of one single Leaf, and from the Disposition of its Segments, which imitates the Shape of a Wheel, had its Name.

SECT.

S E C T. I.

Of Herbs, with a Flower of one single Leaf, shaped like a Funnel, whose Pointal changes into a Fruit.

T A B L E XXIX. Fig. 4.

G E N U S I.

Quamoclit,

IS a Plant with a Flower of one single Leaf A, shaped like a Funnel, and divided into several Segments; from the Flower-Cup D the Pointal C rises, which is fixed like a Nail in the bottom Part of the Flower B, and afterwards converted into a roundish Fruit E, enclosing Seeds for the most Part of an oblong Figure FG.

Its Species are,

Quamoclit with Leaves finely infected, and winged, *Quamoclit foliis tenuiter incisis, & pennatis*: This is the *Convolvulus pennatus, exoticus, Quamoclit*, the exotick, winged Bindweed, or the Quamoclit of *Columna*. Part. I. LXXIII. and the Quamoclit of *J. B.* 2. 177.

This Plant rises at first with two oblong broadish Leaves conjoined, resembling the Fruit of the Maple, which remain long without fading, even after the Plant begins to wind it self round its Prop; the other Leaves shoot from the purplish viny Stalks in an alternate Order; they are winged, finely cut and divided, and of a dark green Colour, but the young Leaves are yellowish or pale-coloured, having at first but few Wings or Divisions, afterwards they are split into several, to the Number of thirteen, with one at the Top; the first Divisions are usually forked: The Flowers are of a most elegant and beautiful Red, shooting alternately from the Joints of the viny Stalks, sometimes singly, sometimes

two together, standing upon long Foot-stalks, divided at the Top into five Segments, and collected into folds or Plaits, with five yellowish Threads and Chives within; they are succeeded by an oblong pointed Fruit standing in a scaly Cup, with a tough Bark or Skin, like the other Bind-weeds, which encloses four oblong, black, and hard Seeds: The Taste of the Herb it self is sweetish, and moderately nitrous; but the Seed-Vessel tastes hot like Pepper, as does the Seed, which almost equally fires and enflames the Throat and Mouth: The whole Plant swells with a thin, pale, milky Juice; it is of a very tender and delicate Nature, and must be stayed and propped in its Growth; it very seldom arrives to any Perfection in our Climate, except in hot Years, and by artificial Helps: The Curious, for its exquisite Beauty, cultivate it in Pots in their Gardens: The Seed sown in the beginning of the Spring grows up in June; it flowers in the end of August, and ripens its Seed towards the end of September: It is brought to us from America, where it grows naturally.

Casalpinus was the first who gave us a short Description of the Quamoclit, (the Name which the Indians give to this Plant) under the Title of *Gelsemini rubri alterius*; after him *Camerarius*, in *Horto Medico*, gave the Figure and Description of it under the Name of Quamoclit; next to him *Columna*, more accurate and exact both in the Figure and Description: Then *J. Bauhin*, under the Title of Quamoclit, *Johnson* the Corrector of Gerard, by the Name of *Quamoclit sive Convolvulus pennatus*, and *Parkinson* under the Title of *Convolvulus tenuifolius, sive pennatus Americanus*, the red Bellflower of America; not to mention others, described it.

Leaves are called winged by the Botanists from their Situation; when they are placed exactly in Opposition, and *folium pennatum* or a winged Leaf, is a Leaf composed of several partial Leaves, two always in opposition upon each Side of the middle Rib.

American Quamoclit, with Leaves so cut as to carry the Resemblance of a Spread Hand, and a Flower of a Crimson Red, *Quamoclit Americana*, *folio digitato*, *flore coccineo*: *Plumier*.

American Quamoclit, with Leaves cut into seven Parts, and crimson-coloured Flowers growing in tufts, in their Disposition resembling a Parasol, *Quamoclit Americana*, *heptaphyllos*, *flore coccineo*, *umbellato*. *Plumier*.

American Quamoclit, with very large Leaves, shaped like a Heart, *Quamoclit Americana*, *foliis amplissimis cordiformibus*. *Plumier*.

American Quamoclit, with very large cornered Leaves, *Quamoclit Americana*, *foliis amplissimis, angulatis*: This is the *Convolvulus coccineus*, *foliis angulosis*, Crimson Bindweed, with angular Leaves of *Plumier*. CIII.

Its viny Stalks are very slender, round, and ash-coloured; the young Leaves are shaped like a Heart, with some juttings about their Edges, which render them angular; they are smooth, of a beautiful Green, stretching four or five Fingers in length, and stand upon pretty long Footstalks; from their Bosoms a little Twig or another Footstalk shoots, long, slender, and branched or divided into others much shorter and smaller, sustaining Flowers of a shining purple or crimson Colour, each whereof is as it were a hollow Tube, an Inch and a half long, thick as a Goose-Quill, but somewhat smaller towards the End; this Tube or Pipe dilates it self after the manner of a little Funnel, about ten Lines in Diameter, cut round the Brim into four round Segments; from the Bottom of the Tube some very slender Filaments rise, of a white Colour, gently tinged with Red: The seminal Vessels are round, about the Bigness of the greater Chiches, and open into four Parts or Cells, each whereof contains one blackish Seed, as big almost as a

bitter Vetch; it is found in several Parts of the Isle of St. Dominigue.

American Quamoclit, with a tripartite Ivy-Leaf, *Quamoclit Americana*, *haderæ folio*, *trifido*. *Plumier*.

American Quamoclit, with a Leaf like that of the Night-shade, and a Rose-flower, *Quamoclit Americana*, *solani folio*, *flore roseo*. *Plumier*.

The smallest Marsh *Quamoclit*, having its Stalks spread upon the Ground, and a Leaf like that of the Rupture-wort, *Quamoclit minima*, *humifusa*, *palustris*, *herniariae folio*; the *Anthyllis* of *Prosper Alpinus*. *Exot.* 157. which is therefore to be excluded from the Species of the *Alfne* or Chickweed, among which our Author first ranked it.

The *Quamoclit* differs from the *Convolvulus* or Bindweed, in the form of its Flower only.

It has no medicinal Vertues ascribed to it.

TABLE XXX.

GENUS II.

Menianthes, *Marsh Trefoil*, or *Buckbeans*,

IS a Plant, with a Flower of one single Leaf A, in the Shape of a Funnel, and cut into several Segments; from the Flower-Cup C the Pointal D shoots, which is fixed like a Nail in the bottom Part B of the Flower, and is afterwards changed into a Fruit or Shell E, for the most Part of an oblong Figure, opening into two Parts or bivalve G H, and enclosing roundish Seeds F I.

Its Species are,

Marsh *Menianthes*, with broad Leaves standing three together, *Menianthes palustre*, *latifolium*, *triphyllum*: This is the *Trifolium palustre majus*, *rotundiore folio*, the greater Marsh Trefoil, with a rounder Leaf of C. B. *Pin.* 327. and the *Trifolium majus* of *Tabernemontanus*. *Icon.* 520.

Menyanthes .
Marsh-Trefoil .







Nicotiana.
Tobacco.



The Root is long, white, full of Joints, and fastens it self firmly in the Earth, by the help of several Fibres which it emits; the Footstalks, which shoot immediately from the Root, are about a Span in length, broader in their lower Parts like a Sheath, and support three large Leaves, smooth, and in form and bigness like Bean-leaves; from among these the Stalk rises, two Foot in height, smooth, slender, green, bearing a Cone or Spike of beautiful Flowers, from a white inclining to a purplish Colour; which, before they are blown, are of a reddish Colour without; when disclosed, they stretch into five sharp-pointed Segments, having their internal Surface covered with a Frieze or Nap of very slender and white curled Filaments; each Flower contains five white Threads with yellow Chives, encompassing a short and green Pointal, which changes into a roundish Button or Fruit, enclosing Seeds like those of the Dwarf-Sun-Flower, from a brown inclining to a yellowish Colour; it grows in Plenty in marshy and fenny Grounds; and flowers in May and June.

Narrow-leaved Marsh Trefoil, or *Menianthes*, *Menianthes palustre*, *angustifolium*, & *triphyllum*: This is the *Trifolium palustre minus*, *acutius folio*, the smaller Marsh Trefoil, with a sharper-pointed Leaf of C. B. Pin. 327. and the *Trifolium fibrinum*, or Beavers Trefoil of *Tabernemontanus*. Icon. 521. *Menianthes* of *America*, with a Leaf like that of the Water-Lilly, and a white Flower, *Menianthes Americanum*, *Nymphaea folio*, *flore albo*. *Plumier*.

The Marsh Trefoil chymically analyzed yields a concrete volatile Salt, a large Quantity of Oil, and no inconsiderable Portion of Earth; it contains a Salt-Armoniack involved in Sulphur, and terrestrial Parts; so that 'tis very proper in the Scurvy, Gout, Cachexy and Dropsy. *Tournefort Hist. des Plantes, &c.*

It is of remarkable Efficacy in conquering goutish Distempers, hitherto concealed from the inquisitive Industry of all Botanists, but confirmed by the happy Experience of several so affected in *Prussia*; they make a Decoction of the Leaves in Ale, and drink a Glass thereof every four Hours during the Paroxysm, from whence

they find great Relief: The Decoction has both a very disagreeable Smell and Taste; but the Plant may be rendered more pleasant if prepared into a Spirit, liquid Extract, or Syrup. *Ray*.

Dr. *Robinson*, who enriched Mr. *Ray's* History with many curious Observations, recommends this Plant as singularly useful in hydropic Cases; and says, he has frequently observed scabby and consumptive Sheep, when forced or driven into Marshes abounding with this Herb, restored to perfect Health by eating thereof; and that the *Germans* and other northern Nations so highly esteem it, that in all desperate Diseases they have recourse to it as to a *Panacea* or universal Remedy.

TABLE XXXI.

GENUS III.

Nicotiana, Tobacco,

IS a Plant, with a Flower of one single Leaf A B, in the Shape of a Funnel, and divided into several Segments; from the Flower-Cup C the Pointal D rises, which is fixed like a Nail in the bottom Part of the Flower, and is afterwards transformed into a membranous Fruit E, of an oblong or roundish Figure, divided into two Cells F F by an intervening Partition G, which inclose several Seeds I, affixed to the *Placenta* or nutritive Membrane H.

Its Species are,

The greater broad-leaved Tobacco, *Nicotiana major*, *latifolia*. C. B. Pin. 169. This is the *Nicotiana major*, *sive Tabacum majus* of J. B. 3. 629. The *Hyoscyamus Peruvianus*, or the Henbane of Peru of *Dodoneus*. *Pempt.* 452.

This Species bears a Stalk or Stem, five, six, yea sometimes seven or eight Foot high, thick as a Man's Thumb, round, hairy, and full of a whitish Pith; the Leaves are large, greater than those of the Elecampane or Bastard Monks Rhubarb, join the Stalk without any intervening Footstalks, embracing, and as it were encompassing

compassing it with broad Labels or Processes; they are placed in an alternate Order, and have several thick Nerves which run transversly and winding from the middle Rib; if chewed they tincture the Spittle yellow: Both the Stalk and Leaves incline from a grassy to a pale yellow Colour, and feel glutinous to the Touch; the Top of the Stalk is divided into several Sprigs, each whereof sustains Flowers of a purplish Colour, shaped like a Funnel, and cut into five Segments; within are contained the Threads and the Pointal, with their Chives, which are covered with a fine and small greyish Dust; the Bottom of the Flower is encompassed by a little Membrane or Bladder divided into five Jaggs: The Pointal, as the Flowers decay, changes into an oblong or conical husky Fruit, partitioned into two Cells, containing great Plenty of small reddish Seeds: The Root is white and fibrous, and of a very sharp biting Taste; the Leaves are of a sharp and burning Taste: It grows naturally in *America*, but the best Sort of it is brought from *Virginia*, *Cuba*, *Brasil*, and some of the *American* Islands, especially those called *Antilles*; it is also planted in several Parts of *Europe*, but especially in fat, wet, and plashy Grounds, such as is frequent in *Germany*, *Hanover*, and *Siratsburgh*; as also in *Narbon* of *France*, *Guienne*, and in the Low Countreys; in our Gardens it sometimes outlives the Winter.

The greater narrow-leaved Tobacco, *Nicotiana major, angustifolia*. C. B. Pin. 169. *Nicotiana: sive Tabacum folio angustiore*, narrow-leaved Tobacco. J. B. 3. 630. *Hyoscyami Peruviani altera Icon*, another Species or Figure of the Henbane of *Pernu*. Dodon. Pempt. 452.

Most Botanists, says Mr. Ray, pretend that this Species is smaller in all its Parts than the preceding broad-leaved Sort; but that which I nursed in my Garden from the Seed which was sent me from *Paris*, equalled, if not exceeded, the first in height; nor did the Flowers or Fruit appear smaller to me; but the Difference of the Leaves is remarkable, for they don't join and embrace the Stalk by broad Processes, without intermediate Footstalks, but hang upon

pretty long Footstalks, and are narrower and more pointed: The Flowers are said to be of a deeper Colour, which we did not observe; in other respects it agrees, so that there is no need of a more particular Description.

The great Tobacco, with a round and broad Leaf, *Nicotiana major, lato & rotundo folio*. H. Lugd. Bat. This is the *Pyciet seu Tabacum* of *Hernandez*. 173.

The smaller Tobacco, *Nicotiana minor*. C. B. Pin. 170. *Priapeia quibusdam, Nicotiana minor*. J. B. 3. 630. *Dubius Hyoscyamus luteolus, solanifolius*, a doubtful yellow Henbane, with Night-shade Leaves. Lobel. Icon. 269.

It rises with a single Stalk, two or three Foot in height, round, hairy, solid, branched, about the thickness of a Finger when it meets with a fat Soil, and glutinous to the Touch: The Leaves are disposed in an alternate Order, upon short Footstalks, fat, and of a dark Green, not indented, bluntly pointed, and not much different in Form from those of the deadly Night-shade, but smaller: The Flowers stand several together at the Tops of the Stalk and Branches upon short Footstalks; they are of a grassy or greenish-yellow Colour, having their Brims bending outwards, and cut into five Segments; within lie concealed five Threads or *Stamina*, with a Pointal and Chives of an ash Colour: The Flower stands in a hairy Cup, clammy to the Touch, and cut into five Parts: The Fruit, Mr. Ray says, represents the Nut of a Man's Yard when stripp'd of the Prepuce; and contains great Plenty of a small Seed, of a sordid yellow Colour, sharp to the Taste, according to J. Bauhin: It is an annual Plant, reviving from its scattered Seed; and originally from *America*; it is described by *Parkinson* and *Gerard*, under the Title of *Hyoscyamus luteus*, yellow Henbane or *English Tobacco*.

Thorny, Tree Tobacco, with a pale-coloured Flower, *Nicotiana arborescens, spinosissima, flore exalbido*. Plumier.

This Plant had the Name of *Nicotiana*, from *John Nicot* of *Nemours*, Ambassador from the *French King* to the Court of *Portugal*, who first sent the Seed of the common



Hyoscyamus.

Henbane.



mon Tobacco, or first Species, into *France*, brought from *Florida* by a certain *Dutchman*.

As to the medicinal Virtues of this Plant; it is endowed with a cleansing, attenuating and dissolving Faculty, is somewhat astringent, and resists putrefaction; so that it is much recommended for the Cure of Phagedenic Ulcers, both in Man and Beast; for which end Ointments and Balsams are prepared from it, or the crude Juice used; the common Ointment of Tobacco is successfully used in an inveterate Scab or Itch, for the Cure of Tetters, ulcerated scrophulous Tumours, old standing Ulcers, yea, and of fresh Wounds.

None are ignorant that it is a good Sternutatory or Sneezing Medicine; chewed, it brings away abundance of Phlegm, upon which account it avails not a little in the Tooth-ach, sleepy Distempers, and a Catarrh or Defluxion of Rheum from the Head: *Chesneau*, from his own Experience, recommends Tobacco well calcined in a Crucible, and put into the hollow Tooth, as a present and infallible Remedy against the Tooth-ach.

The use of it in the Time of a Plague, is esteemed an excellent Preservative from the Infection, this the Experience of many in *London* confirms; for all the Places where Tobacco was sold, barred all Entrance there to the spreading Contagion.

It purges with great Violence both upwards and downwards in an Apoplexy, Lethargy, Palsy, Suffocations of the Womb, &c. but ought to be administered internally with much caution; *Schroder* says, that both the Syrup and Water prepared from it, are greatly beneficial in Fevers, in an Asthma, and in Obstructions of the Lungs.

Upon a chymical Analysis it yields a large Quantity of acid Phlegm, Oil and Earth, as also a moderate Quantity of urinous Spirit, and volatile Salt: The Infusion of the green Leaves of Tobacco renders the blue Paper of a more lively Colour, wherefore its Virtues seem to depend upon a Salt-Armoniac, embarrassed with a copious Quantity of gross Sulphur.

The green Leaves are balsamick and vulnerary; and being dried, they are emetic and cathartick.

The first Author who wrote of this Plant was *Charles Stephanus*, in his second Book of Agriculture, pag. 79. printed at *Turin* in *Italian*, Ann. 1583. A little Time afterwards, in the Year 1587, *Everartus* published a small Treatise at *Antwerp* de *Panacea*, another Name given to this Plant; long before him, in the Year 1573, according to the Testimony of *Cusius*, *Nicholas Monardes* wrote upon it from the Relations of those who came from *Brasil*; the *Brasilians* call it *Petum* or *Patum*; and many others have wrote largely of it, as *Magne-nus*, *Neander*, *Thorius*, *Scriberius*, &c. yea, our great Monarch, King *James* the First, employed his Pen upon this Subject, and has left us a particular Treatise of the Uses and Abuses of Tobacco, as has also *Simon Paulli*; so that those whose Curiosity leads them to have a more particular Information, may consult the above mentioned Authors.

Sir *Walter Raleigh* is said to be the first who introduced the smoaking of Tobacco into this Island, upon his Return from *America*.

TABLE XXXII.

GENUS IV.

Hyoscyamus, *Henbane*,

IS the Genus of a Plant with a Flower A, of one single Leaf, shaped like a Funnel, and divided into several Segments; from the Flower-Cup C the Pointal D shoots, which is fixed like a Nail in the bottom Part of the Flower B, and after the Flower is decayed, changes into a Fruit F, concealed within the Flower-Cup E, resembling a Pot, with a Lid or Cover H K, and by an intermediate Partition I, to which several Seeds adhere L, is divided into two seminal Cells G G.

Its Species are,

Common black Henbane, *Hyoscyamus vulgaris*, vel *niger*. C. B. Pin. 169. This is the *Hyoscyamus vulgaris* or common Henbane of J. B. 3. 627. and the *Hyoscyamus niger*, or black Henbane of *Dodoneus*. *Pempt.* 450. It

It has a thick spriggy Root, wrinkled, brown without, and white within: The Leaves are soft, hairy or downy, fat, deeply infected round the Edges, of a dark green Colour, and a rank offensive Smell, somewhat resembling the Leaves of Bears-breech, but smaller: The Stalks are thick, downy, hairy, branched, and rise to the Height of two or three Foot: The Flowers grow thick thereupon in a long Order or Series, consisting of one single Leaf, of a yellow Colour, striped or streaked with many purplish Veins; the bottom of the Flower is of a dark Purple, each is divided into five Segments; within are lodged five short *Stamina* or Threads, with thick, oblong, purple Chives, encompassing a longer Pointal, bearing a round white Chive, which, when the Flower is decayed, changes into a Fruit almost of the Shape of a Pot, with a Lid or Cover upon it, and is partitioned into two seminal Cells, enclosing many ash-coloured, wrinkly, and flat Seeds.

It grows almost every where in uncultivated Places and fat Soils, by the Waysides, and under Hedges and Walls.

The greater white Henbane, or the third of *Dioscorides*, and the fourth of *Pliny*, *Hyoscyamus albus major*, vel *tertius Dioscoridis* & *quartus Plinii*. C. B. Pin. 169. This is the *Hyoscyamus albus*, or white Henbane of *J. B.* 3. 627. and of *Dodoneus*. *Pempt.* 451.

The Leaves of this Species are more hairy and whiter, but smaller than those of the black Henbane; the Stalk too is more thickly covered with the same whitish Wool or Down: The Flower is not only equally white with that of the other, but the Leaves which encompass the Seed-Vessel, containing a whitish Seed, are streaked, and much more white and hairy: The same Year that it is sown it sends up its Stalk by a quick Growth, flowers and ripens its Seed, but in Duration yields to the other, for it lives but six Months.

Mr. Ray says, he found this Species growing plentifully upon the Walls and Rocks about *Genoa*, which differs from the black Henbane in this, that its Leaves are shorter, more round and green, (*Clusius* however, and *J. Bauhin* will have it that they are

whiter and softer) and less jagged, the Flowers are smaller, in some altogether yellow, in others yellow with a dark purple Bottom.

The smaller white Henbane, *Hyoscyamus albus, minor*. C. B. Pin. 169. *J. B.* 3. 628. *Hyoscyamus albus vulgaris*, or the common white Henbane of *Clusius*. *Hist.* LXXXIV.

The smaller yellow Henbane of *Candy*, *Hyoscyamus Creticus, luteus, minor*. C. B. Pin. 160. This is the *Hyoscyamus albus, Creticus, Clusii*, or the white Henbane of *Candy*, according to *Clusius*. *Hist.* LXXXIV. and the *Hyoscyamus aureus Prosp. Alp.* or the golden Henbane of *Prosper Alpinus*. *Exot.* 99.

This Species from the Root sends up several long, slender Stalks, mounting obliquely, covered with a sort of Down, brittle, and of a grassy Colour, which are adorned with Leaves in form and bigness resembling those of the Ground-Ivy, covered as it were with a soft Wool: The Flowers stand both upon the Stalks and at their Tops, they are small, and of a golden Colour; in their Middle is seen a black Spot, from whence, as from a Centre, some small Filaments of a flesh Colour stretch out, like so many Rays of a Circle to the Circumference; they are succeeded by a small Fruit, not hard, of a grassy Colour, much smaller than that of the black Henbane, which contains small Seeds of a yellowish Colour: The Root is small, long, thick, soft, and tender: It is a perennial Plant.

The greater yellow Henbane of *Candy*, *Hyoscyamus Creticus, luteus, major*. C. B. Pin. 169. *Prodrom.* 92. This is the *Hyoscyamus Creticus, luteus, minor*, *J. Bauhin*, or the lesser yellow Henbane of *Candy*, according to *J. Bauhin*. 3. 628.

It bears Stalks two Foot high, strong branched, round, and covered with a soft Down: The Leaves are broad, roundish, sinuated, and snipt about the Edges, hoary, and stand upon pretty long Footstalks; from whence other woolly Footstalks shoot, sustaining Flowers of an oblong Figure, which rise out of an hairy Flower-Cup cut into five Parts; they resemble those of the *Lamium Melissophyllum* or Arch-Angel with balm Leaves, are divided into five

Segments, the three uppermost whereof are greater and of a yellow Colour, the two lower or undermost are of a paler Colour; in their Middle stand five purplish Threads with yellowish Chives, together with an oblong Pointal of the same Colour: When the Flowers are decayed, Mr. Ray tells us from *C. Bauhin*, that the Flower-Cups harden into a Fruit which contains small brownish Seeds; but according to our Author, who was more nice and exact in his Inquiries, it is the Pointal which changes into the Fruit, which is lodged within the Flower-Cup.

By what follows, it appears that Mr. Tournefort takes the two preceding Species to be one and the same.

The greater yellow Henbane of Candy, *Hyoscyamus Creticus*, *luteus*, *major*. *C. B. Prodrom.* 92. This is the *Hyoscyamus aureus*, or the golden Henbane of *Prosper Alpinus*. *Exot.* 99. The *Hyoscyamus albus*, *Creticus Clusii*. *Hist.* LXXXIV. and the *Hyoscyamus Creticus alter* of the same Author, are one and the same Species; from whence it follows, that the greater yellow Henbane of Candy, of *C. Bauhin*. *Pin.* 169. ought not to be separated as a distinct Species from the smaller.

Henbane with a Flower somewhat red, *Hyoscyamus rubello flore*. *C. B. Pin.* 169. This is the *Hyoscyamus peculiaris*, *flore purpurascente*. *J. B.* or a peculiar Henbane, with a purplish Flower, according to *J. Bauhin* 3. 628. and the *Hyoscyamus Syriacus*. *J. B.* or the Syrian Henbane of *J. Bauhin* 3. 628. *Cam. Icon.* XXI.

This is a foreign Plant which sends up a Stalk two Foot in height, and in Gardens it bears one about the thickness of a Man's little Finger, firm, and covered with a soft and hoary Down: The Leaves are like those of the common Sort, but smaller and less jagged, and while yet young, they are bearded with a slender and long Wool; the Top of the Stalk divides into some nodding and inflected or bending Branches, which shoot out in an alternate Order, from between narrower, smaller, and unjagged Leaves, some little Stalks terminating in five firm and strong Points, upon which the Flowers stand, like those of the common Sort, that is, of a pale Colour

at first, distinguished with purple Veins, but afterwards growing larger, they change into a beautiful Colour, from a red inclining to a Purple, with Veins of a deeper Tincture, and have no purple Centre, as those of the black Henbane, and within contain a purplish Pointal with five Threads; they are succeeded by a Fruit like to that of the common Sort, containing alike Seeds.

Parkinson observes that *C. Bauhin* divides this one Species into two or three others, because *Camerarius in horto* gives two Figures, the one whereof he titles *Syriacus*, the other *Peculiaris*; when in his Descriptions, he affirms, they differ only in the broadness of their Leaves, which may happen rather by the Fertility of the Soil, than from any other specifical Difference. *Bauhin* Names it *Rubello flore*, and constitutes it a different Species from the *Egyptiacus* of *Clusius*, when both *Clusius* and *Camerarius* agree in this, that *Paludanus* brought the Seed from Egypt, and *Rauwolf* says he found it growing about Aleppo; so that the seven sorts of Henbane proposed by *C. Bauhin*, are reduced to four, for his two sorts of White are but one, his two sorts of Candy are but one; and his two sorts, the one *Rubello flore*, and the other *Spinosissimis cauliculis* *Egyptiacus*, are but one, even that which *Camerarius* calls *Syriacus*, and *Peculiaris*, and *Clusius*, *Egyptiacus rubello flore*.

White Egyptian Henbane, *Hyoscyamus albus*, *Egyptius*. *Prosp. Alp. Exot.* 192. This is the *Hyoscyamus albus Veslingii*, the white Henbane of *Veslingius* in his Annotations upon *Prosper Alpinus*. 59.

Mr. Ray takes this to be the same with the last described.

Dwarf American Henbane, with gold-coloured Flowers, and smooth Leaves, like those of the Snap-Dragon, *Hyoscyamus pusillus*, *aureus*, *Americanus*, *Antirrhini foliis glabris*. *Pluknet. Phytsg. Tab.* 37. *Fig.* 5.

The smaller, annual, foreign yellow Henbane, *Hyoscyamus peregrinus*, *luteus*, *minor*, *annuus*. *H. R. Monsp.*

Oriental Henbane, with a Beet-leaf, and a tuberous or knobby Root, *Hyoscyamus orientalis*, *Beta folio*, *tuberosa radice*.

The lesser Henbane, like to the White, having the Bottom of its Flower of a dark purple

purple Colour, *Hyoscyamus minor*, albo similis, umbilico floris atropurpureo, *Hyoscyami alterum Genus in mariimnis*. *Casalp.* 345.

The greater Henbane, like to the white Sort, having the Centre or Middle of its Flower, of a dark purple Colour, *Hyoscyamus major*, albo similis, umbilico floris atropurpureo.

This Plant bears the Name of *Hyoscyamus*, from the two Greek words *ὅς* signifying a Sow, and *κνύμις* which signifies a Bean, as if we should say in *English*, Hogs-bean or Swines-bean.

For, according to the Testimony of *Ælian*, this Plant is so noxious to that animal, that upon eating thereof, if it has not immediate recourse to the River to drench it self thoroughly without and within with Water, it runs the Risque of present Death; he adds, that it is not so much for the Water that these Creatures hasten to any River upon eating of this Plant, as to hunt after Crabs, which prove to them a Counter-poison, and afford immediate Relief.

Of all the Species of the Henbane, the first is what is most commonly used; its Leaves are insipid and of an unpleasant Smell, they give a red Dye to the blue Paper; the Root does not redden it so much; it is sweetish, and tastes like an Artichoke; it is probable that the Salt-Armoniack which is contained in this Plant, lies involved in a large Quantity of Sulphur and Earth; for by a chymical Analysis its Leaves yield a volatile concreated Salt, and a large Quantity of Oil.

It is powerfully narcotic, asswages Pain, allays Inflammations, and mitigates the acrimony or sharpness of the Humours, but at the same Time it disturbs and perverts all the rational Faculties, and causes madness, and if eaten in too great a Quantity, it causes certain Death; so that internally used it is highly noxious; externally, it is of great Efficacy to remove Pain and allay Inflammations in the Parts that are distant from the Head, and to discuss Tumours; for which end it is employed in anodyne Cataplasms, and may be successfully used in the Swellings of the Testicles, and to ease the Pains of the Gout or the *Sciatica*, by external Application of the Leaves boiled in Milk to the Parts afflict-

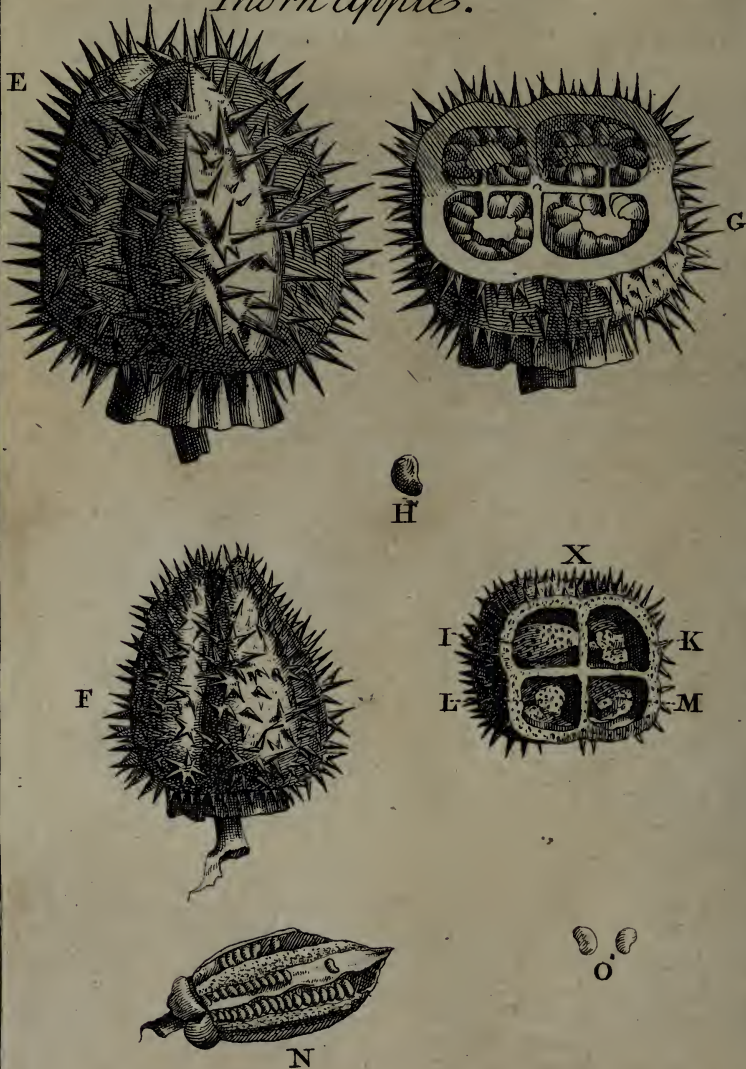
ed: Some soften the Leaves by putting them under hot Ashes, and so apply them to the Breasts of Women newly delivered, to prevent the Afflux of the Milk, or to dissipate it when gathered into knots: *Tabernemontanus* advises to bruise the Seeds in Wine, and to apply them by Way of Cataplasim to the Breasts, for the same end; the Oil expressed from the Seeds has the like Powers: *Caspar Hoffman* tells us, that the Oil prepared from the Seeds is powerfully hypnotic, if the Temples are only anointed therewith; and that it is no less beneficial in a Gonorrhæa, to stop the Flux, and in the excessive monthly Evacuations of Women, if the Region of the Loins and the *Perinæum* is anointed with it: *Tragus* recommends it as effectual to cure the Pain of the Ears, when gentler anodyne Medicines don't prevail, by syringing them therewith, or mixed with Saffron and Castor, and drop'd into them: *Helidæus* highly esteems the Seeds of this Plant to stop and cure a Spitting of Blood, for which end he usually mixed and administered them with Conserve of Roses; and the celebrated *Mr. Boyle* in his Treatise *De Utilitate Philosophia Nat.* recommends the following Prescription as effectual to stop any Hemorrhage: Take of Henbane and white Poppy-Seeds, two Drachms; of the Conserve of red Roses, two Ounces; reduce them into the Form of an Electuary; Dose, the Quantity of a Nutmeg: The Peasants in several Parts to cure their Hands and Feet of those troublesome uneasy Tumours generated by the Winter's cold, Chilblains and kibed Heels, expose them to the Smoak of the Seeds of this Plant sprinkled upon live Coals, then squeeze the Parts to press out the extravasated Lymph, which in its Passage thro' the Pores of the Skin forms it self into the Resemblance of little Worms.

Caspar Hoffman observes, that the Juice of this Plant obtained by Expression, is of safer use than that which distils from the wounded Plant; the reason is plain, that which is obtained by Expression comes diluted and enervated by the copious Lymph, which is forced out of its narrow Vessels wherein it circulates; whereas the other is essential, sincere and unmixed, as flowing by Incision from the greater Vessels only.

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Stramonium.
Thorn Apple.





Stramonium.
Thorn Apple.



The white Henbane is of a much more gentle and mild Nature than the black, nor is the use thereof attended with such dangerous Consequences.

TABLE XXXIII, XXXIV.

GENUS V.

Stramonium, Thorn-Apple,

IS a Plant with a Flower of one single Leaf A, shaped like a Funnel, and cut into several Segments: From the Flower-Cup C the Pointal D shoots, which is fixed like a Nail in the bottom Part of the Flower B, and afterwards, upon the decay of the Flower, changed into a roundish Fruit EF, often armed with Prickles, and divided into four seminal Cells GX, formed by a Partition, disposed into the Figure of a Cross, furnished with four Placentas or nutritive Membranes I K L M, to which several Seeds adhere N, shaped for the most Part like a Kidney O.

Its Species are,

Thorn-Apple, with a round thorny Fruit, and a single white Flower, *Stramonium fructu spinoso, rotundo, flore albo, simplici*: This is the *Solanum pomo spinoso, rotundo, longo flore*. C. B. or the Night-shade with a round, thorny Apple, and a long Flower, according to *Caspar Bauhin*. Pin. 168. The *Stramonium multis dictum, sive pomum spinosum*. J. B. or the *Stramonium* of many Authors, or the Thorn-Apple, according to *John Bauhin*. 3. 624. and the *Stramonium* of *Dodoneus*. *Pempt.* 460.

The Root is very much divided or branched, and woody; it bears a Stalk above two Foot in height; the Leaves are large, sinuated, hang upon long Footstalks, and emit a heavy unpleasant Smell: The Flowers are large, and white, have their Brims cut into Segments, and hide within their Cavity five Threads or *Stamina* tip'd with long Chives; they are succeeded by an orbicular Fruit, about the Bigness of a Walnut when wrapped up within its Husk, bossed, and armed with Prickles, contain-

ing flat ash-coloured Seeds: It is brought in Seed from *Asia* and *Egypt*; the Physicians and Apothecaries of the East affirm it to be the *Nux Metel*, because its Fruit is possessed of the same Qualities which *Avicen* ascribes to the *Nux Metel*; and *Dalechamp* affirms it from the Testimony of repeated Experience, endowed with equal Powers.

Thorn-Apple, with a round prickly Fruit, and a full Flower of a white Colour, *Stramonium fructu spinoso, rotundo, flore albo pleno*: This is the *Solanum feridum, pomo spinoso, rotundo, semine pallido, triplici calice odoro & albo*. H. R. Par. or stinking Night-shade, bearing a round thorny Apple, with pale Seeds, and a threefold Flower-Cup of a sweet Smell, and a white Colour, in the Catalogue of Plants in the Royal Garden at *Paris*.

Thorn-Apple with a prickly Fruit, of a round Shape, and single Flowers of a violet Colour, *Stramonium fructu spinoso, rotundo, flore violaceo, simplici*; *Stramonium Aegyptiaca, ferida, pomo spinoso, rotundo, flore violaceo, simplici*. H. L. Bat. or stinking Egyptian Thorn-Apple, bearing a round prickly Fruit, and single Flowers of a violet Colour, in *Herman's* Catalogue of Plants in the Garden at *Leyden*.

Thorn-Apple with a round prickly Fruit, and double Flowers of a violet Colour, *Stramonium fructu spinoso, rotundo, flore violaceo duplici, triplici*: This is the *Stramonium Aegyptiaca, ferida, semine pallido, pomo spinoso, rotundo, flore violaceo duplici, triplici*. H. L. Bat. or stinking Egyptian Thorn-Apple, bearing a round prickly Fruit, containing pale-coloured Seeds, and double Flowers of a violet Colour, according to *Herman* in his Catalogue of the Plants in the Garden at *Leyden*: The *Solanum feridum, pomo spinoso rotundo, semine pallido*. C. B. Stinking Night-shade, with a round thorny Fruit, enclosing pale-coloured Seeds, according to *C. Bauhin*. Pin. 168. and the *Datura vero Stramonium d'Egipto con fior pieno*. *Pon.* The *Datura* or Egyptian Thorn-Apple, with a full Flower, according to *Pona*. *Ital.* 61.

It bears a single Stalk, large, and very much branched; the Leaves are of a dark green Colour, and are supported by long

Footstalks; those that stand lower upon the Stalk are broader and longer than the others, unequally cut and divided round the Edges: The Flower is elegantly beautiful, and breaths an agreeable Odour; it stands in a toothed or indented Cup, and is found sometimes double, sometimes treble, its single Leaf being so often multiplied; without, it is of a purple Colour, and of a milky White within, and has its Brim divided into several Segments, which wreathing and turning attenuate themselves into Tails; this is peculiar to all the Flowers of this Species: The Fruit is of a Figure more or less round, having its Bark or Rind sometimes armed with Prickles, sometimes smooth; it contains numerous Seeds, which appear at first of a yellow Colour, but afterwards turn pale; the Root is long and thick, of a reddish Colour, and strikes the Nose with a most intoxicating Smell.

Prosper Alpinus following the general Opinion, pronounces the Fruit of this Species to be the *Nux Methel*, and the Plant it self the true *Stramonium* of *Dioscorides*: Some other celebrated Authors, from the Faculties of the Seeds, which are powerful to excite Madness, and to stupify the Senses, affirm it to be the *Solanum maniacum* of *Theophrastus*, and the *Hippomanes* of *Crates*: the *Egyptians* call it *Datura* or *Tatura*.

Egyptian Thorn-Apple with a full Flower, white within, and of a violet Colour without, *Stramonium Aegyptiacum*, flore pleno, intus albo, foris violaceo: This is the *Solanum Aegyptiacum*, flore pleno. C. B. or, *Egyptian Night-shade*, with a full Flower, according to *Caspar Bauhin*. Pin. 168. The *Stramonium Aegyptiaca*, flore pleno, exterius purpurascens, intus albicante, punctis purpureis asperso, or the *Stramonium* of *Egypt*, with a full Flower, of a purplish Colour without, and whitish within, marked with purple Spots, of *Caspar Bauhin*. Boy.

Thorn-Apple, with a prickly Fruit of an oblong Figure, and a white Flower, *Stramonium fructu spinoso, oblongo, flore albo*: This is the *Solanum fetidum, pomo spinoso, oblongo, flore albo*. C. B. or stinking Night-shade with a prickly Apple, of an oblong Shape, and a white Flower, according to

C. Bauhin, Pin. 168. The *Stramonium altera, major, five Tatura quibusdam*, J. B. another *Stramonium*, or the *Tatura* of some Authors, according to *J. Bauhin*. 3. 624. and the *Solanum maniacum Dioscoridis Col* or the mad Night-shade of *Dioscorides*, according to *Columnna*. *Phytob.* 41.

It bears a thick hairy Stalk, which rises sometimes to the Height of a Man, with spreading Branches: The Leaves are sinuated, resembling those of the Goose-Foot, but four or five times larger, striking the Nose with a most insupportable and offensive Smell: The Flowers stand at the Divisions of the Branches, of a snowy white Colour, divided into five pointed Segments, each whereof have so many Incisions: Within lie concealed five *Stamina* or Threads, long, and of a grassy Colour, tip'd with yellow Chives distinguished by a white Line, encompassing a whitish Pointal; the Tube of the Flower is covered with a loose five-cornered Husk, cut into five Jags, and divided round the Edges into so many sharp Points: The Fruit is of an oblong Shape, armed with sharp Prickles, and opens into four Parts when ripe, being divided into so many Cells by a cross Partition, to which many black, flat Seeds adhere; the Seeds have a white Pith, and an unpleasant Taste: The Root is composed of many Fibres or Strings.

It varies in the Colour of its Flower, which is either yellow, or approaching to the Colour of the Henbane Flowers: These Varieties are reckoned as distinct Species by *Acoffa* and *Columnna*.

Thorn-Apple, with a prickly Fruit, of an oblong Figure, and a purple Flower, *Stramonium, fructu spinoso, oblongo, flore purpureo*: This is the *Solanum fetidum, pomo spinoso, oblongo, flore purpureo*, C. B. or stinking Night-shade, with an oblong thorny Apple, and a purple Flower, according to *C. Bauhin*. Pin. 168.

Thorn-Apple with a prickly Fruit, of an oblong Shape, and a Flower of a violet Colour, *Stramonium, fructu spinoso, oblongo, flore violaceo*: This is the *Solanum fetidum, pomo spinoso, oblongo, flore violaceo*. H. Edin. or stinking Night-shade, with an oblong prickly Apple, and a Flower of a violet Colour,

Colour, according to *Sutherland*, in his Catalogue of Plants in the physical Garden at *Edinburgh*.

Dutro, *Stramonium ferox* of *Boccone* 50. *Solanum fetidum*, *pomo grandiori*, *spinosissimo*. *H. R. Par.* stinking Night-shade, with a larger Fruit, thick-set with Prickles, in the Catalogue of Plants in the Royal Garden at *Paris*: The *Datura di Coccino spinosissima*, or the *Dutro* of *Zanoni*. 77.

It bears a thick, hollow Stalk, pithy, and branched, equalling almost in height the greater *Stramonium*: The Leaves are angular and sinuated, resembling those of the Goose-Foot, but somewhat larger and thicker, from a green inclining to a pale Colour: The Flowers rise at every Division of the Branches, absolutely white, or blue, encompassed with a five-cornered Husk, and divided into five Segments, and lodge within five Threads with a Pointal; they are succeeded by a Fruit in bigness and form resembling the Walnut, horrid with thick and sharp Prickles, and divided by a cross Partition into four seminal Cells: The Seeds are shaped like a Kidney, are wrinkled or rough, and contain a white Pith; they stick to the spongy Membranes which adhere to the Partitions: The Root is fibrous, and annual; it flowers in Summer, and ripens its Seed towards the end of *August*.

The lesser *American Thorn-Apple*, with a Leaf like that of the Winter Cherry, *Stramonium Americanum*, minus, *Alkekingi folio*: *Stramonia Corassavica*, *humilior*, *Hyo-seyami folio*, Thorn-Apple of *Curacao*, low and dwarfish, with a Henbane Leaf, *Prod. Par. Bat.* *Stramonia Corassavica*, *humilior*. *Paradis. Batav.*

Thorn-Apple of *Malabar*, with a smooth Fruit, and a single Flower, of a violet Colour, *Stramonium Malabaricum*, *fructu glabro*, *flore simplici violaceo*: This is the *Stramonia fetida Malabarica*, *semine pallido*, *pomo glabro*, *flore simplici violaceo*, or the stinking Thorn-Apple of *Malabar*, with pale Seeds, a smooth Fruit, and a single Flower of a violet Colour, in *Herman's* Catalogue of the Plants in the Garden at *Leyden*: The *Nila Humatu* of the *Hortus Malabaricus*. 2. 51.

Thorn-Apple of *Malabar*, with a smooth Fruit, and double or treble Flowers, *Stramonium Malabaricum*, *fructu glabro*, *flore duplici*, *triplicive*: *Stramonia fetida*, *Malabarica*, *semine pallido*, *pomo glabro*, *flore duplici*, *triplicive*, or stinking Thorn-Apple of *Malabar*, with pale Seeds, a smooth Fruit, and double or treble Flowers, in *Herman's* Catalogue of the Plants in the Garden at *Leyden*: *Mudela Nila-Humatu*. *Hort. Malabar.* 2. 51.

The Species of the *Stramonium* at the Time when they are neither in Flower nor Fruit, are known and distinguished by their large, angular, stinking Leaves, which are of a dark green Colour.

The Thorn-Apple is powerfully narcotic, especially its Fruit and Seeds; but in respect that it destroys all Memory, disturbs Reason, and unhinges all the rational Faculties, converting Reason into Rage and Madness, all internal use thereof ought to be shunned: Of all the Species, the *Dutro*, which is the *Stramonium ferox* of *Boccone*, and the *Datura Cochinenfis spinosissima* of *Zanoni*, is most remarkably possessed of these Powers.

Its Seed reduced to a Powder and mixed with any convenient Liquor, confounds the Reason and Judgment, and perverts all the other Faculties of the Soul, and leaves in their Room a wild Rage and Madness, which continues for the Space of twenty-four Hours: Apprised of this Quality, the Thieves convey it for their Purposes into the Victuals of such as they intend to rob: From the Testimony of several grave Authors, we find that it is a powerful provocative of Lust, which it exalts to such a Height, that even the vilest Prostitutes can scarce support the furious Assaults. In the *East Indies*, where the Plant grows naturally, the lewd Women give ʒʒ of this Seed in Wine, or any other agreeable Liquor, to their Lovers, to invigorate and strengthen Nature and procure a lusty Embrace: There is a Liquor likewise there prepared from this Plant, which they call *Pouff*, this they usually give to the younger Princes of the Imperial Family, to benumb their Senses, to stupify and insatuate their Minds, and silently to convey them into the next World,

lest they should convulse the State by dangerous Commotions: Some there are there so well acquainted with the Nature of this Medicament, who know so justly to temper and moderate its Powers, that they can procure an alienation of Reason to continue for what Number of Hours they shall please.

The unhappy Wretch who has taken of this Poison, remains long bereft of Reason; now he dissolves into Tears, sometimes bursts out into immoderate Laughter, sometimes sinks into a profound Sleep, often he talks and converses, and answers so rationally that you would conclude him in his right Senses, notwithstanding that all Sense and Reason is fled, for he knows not him he talks to; nor, when recovered and restored to his first situation of Mind, does he remember the least of what passed in Conversation.

The Remedies which they use against this Poison are, Vomits, sharp Glysters, strong Ligatures and frictions, sometimes Cupping; which, if they avail nothing, they open a Vein in the Foot: But the Heathen Physicians and the Christian Natives, as they disapprove of Cupping and Bleeding, have only recourse to Vomits, Ligatures and Frictions, which, if insufficient, they order a Bath of hot Water to procure a Sweat; after the Vomit they usually administer Wine with Pepper and Cinnamon.

A Drachm of the Root of this Plant given in Wine, throws the Person into a profound Sleep, which is accompanied with strange Dreams, and wherein the Imagination is fed and entertained with surprizing Scenes and wonderful Representations of various Objects.

An Ointment is prepared from the Juice of the Leaves of Thorn-Apples with Hogsgrease, which effectually cures all Inflammations, Burnings and Scaldings, however produced, which repeated Experience has confirmed.

TABLE XXXV.

GENUS VI.

Pervinca, Periwinkle,

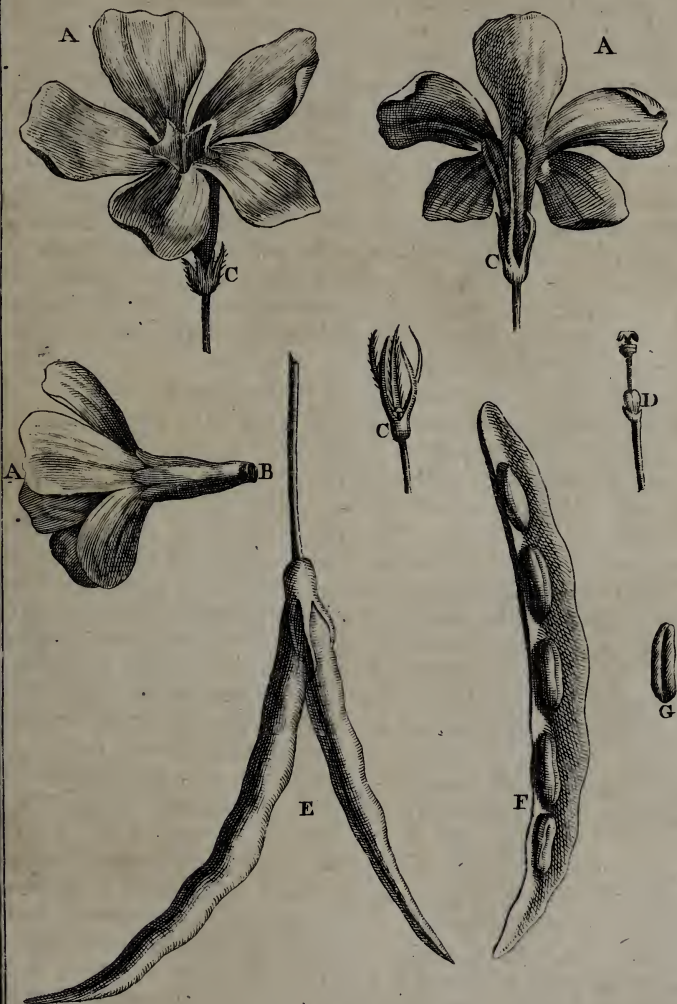
IS a Plant with a Flower of one single Leaf A, shaped like a Funnel, or rather, which has the upper Part of its Tube dilated into a flat Surface like a Salver, and cut into several Segments; from the Flower-Cup C the Pointal D shoots, which is fixed like a Nail in the bottom Part of the Flower B, and is afterwards changed into a Fruit E, composed of two Husks, which enclose oblong Seeds F, G, for the most Part of a cylindrical Shape, and furrowed.

Its Species are,

Common, broad-leaved Periwinkle, with a blue Flower, *Pervinca vulgaris, latifolia*, flore caeruleo: *Clematis Daphnoides, major*. C. B. Pin. 302. Dodon. Pempt. 406. *Clematis Daphnoides, major*, flore caeruleo. J. B. 2. 132.

The Leaves stand in opposition upon Footstalks above half an Inch in length; they shoot from the viny Stalks somewhat thicker than a Bull-rush, are about three Inches broad, and somewhat more in length, sometimes more sharply, sometimes more bluntly pointed, and of an unpleasant bitterish Taste, with some mixture of Sharpness: The Flowers rise from the Bosoms of the Leaves, and are supported by Footstalks half an Inch in length; they are of a blue Colour, sometimes white; J. Bauhin says he has observed the Flowers of this Species succeeded by a single Husk only; it is found in plenty about Montpellier: The Periwinkle is called *Clematis*, because it has climbing Stalks like the Vine, and *Daphnoides* from the Resemblance of its Leaves to those of the Bay; and *Vinca Pervinca*, because it creeps along the Ground winding and binding it self round every adjoining support.

Common broad-leaved Periwinkle, with a white Flower, *Pervinca vulgaris, latifolia*, flore





flor. albo: *Clematis Daphnoides, major, flor. albo.* J. B. 2. 132.

Common narrow-leaved Periwinkle, with a blue Flower, *Pervinca vulgaris, angustifolia, flor. caeruleo: Clematis Daphnoides, minor, flor. caeruleo.* C. B. Pin. 301. *Clematis Daphnoides, minor, flor. caeruleo simplic.* J. B. 2. 130. *Clematis Daphnoides.* Dodon. Pempt. 405.

It stretches widely with many small Twigs, which creep and spread along the Ground: The Root is fibrous; and its many slender, round, green, and jointed Stalks, as they creep along, emit Fibres from their Joints, and root themselves again in the Earth: The Leaves shoot two and two in-opposition from the Joints of the Stalks; in form they resemble those of the Bay, (in colour and consistence those of the Ivy) but are much smaller, sharp pointed, stiff, and smooth, and hang upon short Foot-stalks; above, they are of a deep shining Green, but of a paler Green underneath, and of an astringent and bitterish Taste: The Flowers rise from the Joints upon Foot-stalks two Inches long; it is found sometimes single, having its Brin cut into five deep and broad Segments, sometimes double, or with its single Leaf oftner multiplied, which multiplications or leafy Excrecences are entire at the Bottom, and have their Edges jagged like the external Leaf, of which they are only Productions; the single Flower is blue, and contains Chives of the same Colour, or a little paler, or white with yellow Stamina or little Threads, and a white Pointal, having its Bottom streaked with white Lines; or to the great Delight of the Eye, the violet Flower is striped with a milky Line from the Extremity of each Segment to the Bottom, which is likewise found in the double or multiplied Flower; however John Barbin tells us that he never observed the Flower with a multiplied Leaf, of any other than a Purple or a violet-purple Colour, and distinguished with two Colours intermixed, as is already hinted; the Flower is succeeded, but very rarely, by a double Husk.

Mr. Tournefort, in his Herborizations tells us, that this Plant multiplies and propagates its self by its Roots; it continues in

Flower a long Time, but seldom or never produces any Fruit; he says, he never observed any Fruit upon it, neither in the Country adjoining to Paris, nor in Provence or Languedoc, where it is very common, nor in the Neighbourhood of Lisbon. Of all the Botanical Writers, Casalpin only found and described the Fruit, which is oblong, he says, being two forked Husks, arched, and conjoined at each Extremity, containing for the most Part two oblong flat Seeds: To have this Plant bear Fruit, you must plant it in a Pot that contains but a small Quantity of Earth, then the Sap being prevented from dissipating and spending it self upon the Roots, is forced to mount the Stems or Twigs, and thus swells the Pointal, which is afterwards changed into the Fruit: It is by this means that we obtain much Fruit from Fig-trees and most other Plants that widely spread and diffuse their Roots, and it was thus I obtained the Fruit of the Periwinkle, the Figure whereof I have given in my Elements of Botany and Institutions.

Common narrow-leaved Periwinkle, with a white Flower, *Pervinca vulgaris, angustifolia, flor. albo: Clematis Daphnoides, minor, flor. candido.* C. B. Pin. 301. *Clematis Daphnoides, minor, flor. albo simplic.* J. B. 2. 130.

Common narrow-leaved Periwinkle, with a red Flower, *Pervinca vulgaris, angustifolia, flor. rubente: Clematis Daphnoides, minor, flor. rubente.* C. B. Pin. 301. *Clematis Daphnoides, minor, flor. purpureo, simplic.* J. B. 2. 130.

Common narrow-leaved Periwinkle, with a double Flower of a blue Colour, *Pervinca vulgaris, angustifolia, flor. pleno, caeruleo: Clematis flor. pleno.* C. B. Pin. 302. *Clematis Daphnoides, minor, flor. pleno.* J. B. 2. 130. *Clematis Daphnoides, flor. purpureo, pleno.* Eyst.

Common narrow-leaved Periwinkle, with a double Flower of a deep purple Colour, *Pervinca vulgaris, angustifolia, flor. pleno, saturatè purpureo: Clematis Daphnoides, minor, flor. saturatè purpureo, duplici.* H. Edinburg.

Periwinkle with a double Flower of various Colours intermixed, *Pervinca flor. pleno*

pleno variegato: Clematis altera, flore pleno variegato. H. R. Par.

Broad-leaved, party-coloured Periwinkle, *Pervinca latifolia, variegata.*

Narrow-leaved, party-coloured Periwinkle, *Pervinca angustifolia, variegata.*

The Tree called *Padri* in the *Hortus Malabaricus* 6. 47. is nearly related to this Genus.

Broad-leaved, oriental Periwinkle, hairy, and bearing a large Flower, *Pervinca orientalis, latifolia, villosa, flore magno.*

Broad-leaved, and hairy oriental Periwinkle, with a small Flower, *Pervinca, orientalis, latifolia, flore parvo.*

Narrow-leaved, hairy, oriental Periwinkle, *Pervinca orientalis, angustifolia, villosa.*

The above enumerated Species of the Periwinkle, when without Flower and Fruit, are easily distinguished by their long creeping Twigs or viny Stalks, and smooth Leaves, which resemble those of the Bay; their Fruit is rarely found ripened, nor was it ever observed by any Botanist, but *Caspar* only; yet it is easily obtained, if the common broad-leaved Sort be sown in a Pot with Earth; for then, as it cannot luxuriantly spread and stretch its Roots, the alimentary Juice is conveyed in greater plenty to the Pointal, which changes gradually into a perfect and well formed Fruit.

The Species commonly used, or the Periwinkle of the Shops, is the *Pervinca vulgaris, angustifolia, flore caruleo*, called *Clematis Daphnoides minor*, by *Caspar* and *John Bauhin*, or the common narrow-leaved Periwinkle, with a blue Flower.

It is vulnerary, astringent, and, to use a barbarous physical Term, Febrifuge; it gives a deep red Tincture to the blue Paper, and it is very probable that Earth and Oil are predominant in the Periwinkle; its Salt approaches in Nature to Allom, but participates somewhat of an urinous Salt, and is like to Allom, with which Urine is mixed, to make it crystallize the better; for by a chymical Analysis, besides many acid Liquors, this Plant yields a great Quantity of Earth and Oil, but very little volatile Salt.

Its astringent Quality recommends it as greatly beneficial in all Fluxes of the Belly,

Dysenteries, Spitting of Blood, in the hemorrhoidal Flux, and in an eruption of Blood by the Nose, in an excessive menstrual Evacuation, and against the Whites; and as a Vulnerary it avails in Wounds that discharge a great Quantity of serous Liquors.

In a Spitting of Blood, in an excessive menstrual or hemorrhoidal Flux, and to cure the Whites, pour two Pints of boiling Water upon three Handfuls of the Leaves of Periwinkle, cover the Pot, remove it from the Fire, and drink the Infusion: The Conserve and Extract of this Plant have the like Virtues; the Leaves bruised and put into the Nose, or, as some Authors from their Experience testify, the Leaves only held in the Mouth, stop the Efflux of Blood from that Part.

The Milk wherein the Leaves of Periwinkle, Tansie, and Agrimony have been steeped for the Space of a Day, afterwards distilled, is esteemed useful in a Dropsy.

It is an Observation communicated by *Dr. Hulse* to *Mr. Ray*, that the fresh Leaves of this Plant laid upon coarse Paper, and smoaked with Frankincense, by the Advice of a Woman, applied to a stumous Swelling, dissolved the Tumour in a very little Time, which, for a Year had resisted and baffled the Skill of a learned Physician: Another, abandoned as incurable, was cured by the same Application, by the Advice of the same Woman.

A sufficient Quantity of the Leaves of this Plant put into Wine that is thick and turbid, and has lost its Colour, purifies, clears and recovers it to its genuine Colour; but the Vessel must be changed.

T A B L E XXXVI. Fig. 1.

G E N U S VII.

Auricula Ursi, Bears-Ear; Or, Oricola, French Cowslip,

IS a Plant with a Flower of one single Leaf A, shaped like a Funnel, and cut into several Segments; from the Flower-Cup C the Pointal D rises, which is fixed like

Fig. 1.



Androface.

pag.

Fig. 2.





like a Nail in the bottom Part of the Flower B, and is afterwards changed into a round Fruit E, partly wrapped up within the Flower-Cup C, gaping or opening at the Top F, and containing many Seeds H, which adhere to the Placenta G.

Its Species are,

Bears-Ear with a yellow Flower, *Auricula Urſi flore luteo*, J. B. 3. 499. *Auricula Urſi lutea*. H. L. Bat. *Sanicula Alpina*, lutea, C. B. or yellow Mountain Sanicle, according to Caspar Bauhin, Pin. 242. the *Alisma* or *Damaſonium* of Dioſcorides, according to Columna. Phytob. 18.

The Leaves of this Sort nearly reſemble thoſe of the Primroſe, yet they are not wrinkled, but thick, like thoſe of the *Fabaria* or *Orpine*, and are either mealy, and altogether hoary, or only gently greyiſh, ſometimes entirely green and ſmooth: Again, they are all either toothed round the Edges like a Saw, or not in the leaſt indented; ſometimes the young Leaves only are toothed, the old ones not at all; all of them are of a bitter Taſte: From among theſe Leaves, or from their Sides, little ſlender Stalks riſe, about a Span in length, naked, and as it were mealy, which ſuſtain a tuft of ten, twenty, thirty, or more Flowers, (eſpecially if it is cultivated in Gardens, where it is of a moſt luxuriant Growth) which ſhoot all as it were from the ſame Head, and ſtand in ſhort Cups, and upon ſmall Footſtalks ſeparated and diſtinguiſhed as it were from one another by little hoary Scales; they reſemble thoſe of the Primroſe, are divided into five or ſix Segments, and breath a moſt ſweet and pleaſant Odour; their Colour is either yellow or pale, ſome are larger, others leſſer, but all of them have a white Circle encompassing their Centre, and a Pointal, which ſometimes ſtretches out beyond the *Stamina*, ſometimes is not apparent; this, as the Flower fades, changes into a round Fruit, which encloſes a browniſh Seed: The Root is thick, and furniſhed with many white and oblong Fibres: It grows naturally upon the Mountains *Sniberg*, *Nuberg*, *Eiſcher*, and upon the *Alps* in the Neighbourhood of *Auſtria* and *ſtiria*.

Mr. Ray is of Opinion, that the *Auricula Urſi* 7. of *Cluſ.* or the ſeventh Bears-Ear of *Cluſius*, in his *Cura poſteriores*, differs nothing from this Species.

Bears-Ear with a purple Flower, *Auricula Urſi, flore purpureo*, Lob. Icon. 570. This is the *Sanicula Alpina, purpurea*. C. B. or purple, Mountain Sanicle, according to Caspar Bauhin. Pin. 242. and the *Auricula Urſi, ſive primula veris Alpina, flore rubente*. J. B. Bears-Ear, or Mountain Primroſe with a red Flower, according to John Bauhin 3. App. 867.

The Leaves of this Species are ſhorter than thoſe of the preceding, broader for the moſt Part at the Extremitie, at firſt as it were round, but in progreſs of Time they turn narrow towards the Root; they are thick, but leſs indented than thoſe of the firſt deſcribed, above of a green Colour and ſmooth, underneath from a green they incline to a pale Colour; from among them, or from their Sides, riſe naked Stalks, two Inches long, or more, which ſuſtain eight or more Flowers, collected into a Tuft or Umbel, as in the preceding, and in form reſembling them, but larger; of a ſhining red Colour, ſomewhat darker however at firſt, as if tinctured or dyed with the Juice of Mulberries, but afterwards they change to a ſhining red Purple; within, round their Centre, of a pale or whitish Colour, of a ſweet Smell, but not ſo ſtrongly perfumed as thoſe of the firſt; the Fruit which ſucceeds the Flower is ſmaller than that of the former, and encloſes ſmall black Seeds: It grows naturally upon the *Alps*.

The third Bears-Ear of *Cluſius*, the Bears-Ear of John Bauhin, with a red Flower, ſpotted white, and Leaves ſomewhat hairy, and the Mountain Sanicle with a party-coloured Flower, ſmaller and tenderer Leaves, leſs thick, ſomewhat hairy, and a red Flower marked with whitish Spots, of Caspar Bauhin, differs in Mr. Ray's Opinion from this laſt deſcribed Sort, but not ſpecifically.

Bears-Ear with a large, ſingle, velvet Flower, of a dark purple Colour, and a very large embossed Centre, *Auricula Urſi, flore magno, atropurpureo, hoſerico, ſimplici, umbone candido, ampliffimo*. H. Lugd. Bat.

Bears-Ear with a large undulated or waved Flower, of an obsolete or worn out incarnate Colour, and a large pale embossed Centre, *Auricula Urfsi, flore magno, undulato, obsolete incarnato, umbone pallido, amplissimo. H. Lugd. Bat.*

Bears-Ear, with a large undulated Flower, of various Colours, and a very large embossed Centre of a yellowish Colour, *Auricula Urfsi, flore magno, undulato, colore vario, umbone amplissimo, flavescente. H. L. Bat.*

Bears-Ear with three Bosses in its Centre, of various Colours, *Auricula Urfsi, umbone triplici, vario. H. L. Bat.*

Bears-Ear with a large, beamed or radiated, Boss, of a gold Colour, *Auricula Urfsi, umbone amplissimo, radiato, aureo. H. L. Bat.*

Bears-Ear with a large starry Boss, of a gold Colour, *Auricula Urfsi, umbone amplissimo, stellato, aureo. H. L. Bat.*

White Bears-Ear, *Auricula Urfsi alba. J. B. 3. App. 868.* This is the *Sanicula Alpina, alba, foliis non crenatis*, C. B. or white Mountain Sanicle, with Leaves not notched, according to *Caspar Bauhin. Pin. 243.* The sixth Bears-Ear of *Clusius. Hist. 304.*

Bears-Ear with a great blackish Flower, of the Colour of rusty Iron, *Auricula Urfsi, flore nigricante, ferrugineo, majore: Sanicula Alpina, flore nigricante, ferrugineo, majore. H. R. Paris.*

Bears-Ear with thick and party-coloured Leaves, and the largest Flower, *Auricula Urfsi, densis & variegatis foliis, flore maximo: Sanicula Alpina densis & variegatis foliis, flore maximo. H. Reg. Paris.*

Bears-Ear with a party-coloured or mottled Flower, *Auricula Urfsi, flore variegato: Sanicula Alpina flore variegato. C. B. or Mountain Sanicle, with a party-coloured Flower, according to Caspar Bauhin. Pin. 242. Auricula Urfsi, flore rubro, maculis exalbidas, foliis subhirsutis. J. B. or Bears-Ear with a red Flower, marked with whitish Spots, and Leaves somewhat hairy, according to J. Bauhin 3. App. 868. Auricula Urfsi, floribus guttatis Tabern. or Bears-Ear, with spotted Flowers, according to Tabernemontanus. Icon. 324.*

Bears-Ear with round Leaves, *Auricula Urfsi, foliis rotundis: The Sanicula Alpina foliis*

rotundis. C. B. or Mountain Sanicle, with round Leaves of Caspar Bauhin. Pin. 242. The Auricula Urfsi, orbiculata, serrata, coloris rubicundi. J. B. or Bears-Ear, with orbicular, indented Leaves, and Flowers of a reddish Colour, of John Bauhin 3. App. 868.

Narrow-leaved, Mountain Bears-Ear, *Auricula Urfsi Alpina, angustifolia: The Sanicula Alpina, angustifolia, C. B. or narrow-leaved; Mountain Sanicle of Caspar Bauhin. Pin. 243. Auricula Urfsi, angustifolia, colore rubente. J. B. or the narrow-leaved Bears-Ear, with Flowers of a red Colour, of John Bauhin 3. App. 168. Auricula Urfsi, flore purpureo, or purple Bears-Ear. Eyst.*

It has a Root somewhat thick, garnished with many whitish Fibres, from whence shoot five or six narrow, juicy, and fat Leaves, toothed like a Saw round the Edges from the Middle to the pointed Extremity, and of a bitter Taste; from among these a slender Stalk rises, three Inches long, naked, and smooth, terminating in a little leafy Head, which supports a Tuft of four or five Flowers, of an elegant red Colour: *Clusius*, who gives this Description, could not observe the Seed; it grows naturally upon some of the Alps of *Stiria* and *Carinthia*; it flowers about the end of July, when the Snows melt, is very rare, and difficultly cultivated.

Bears-Ear with mealy Leaves, *Auricula Urfsi, foliis quasi farinâ aspersis: The Sanicula Alpina, foliis quasi farinâ aspersis. C. B. Mountain Sanicle with mealy Leaves, of Caspar Bauhin, Pin. 243. The seventh Bears-Ear of Clusius. Cura posteriores in Fol. 30.*

Bears-Ear with Flowers of a blush Colour, and Leaves not indented, *Auricula Urfsi carnei coloris, foliis minimè serratis. J. B. App. 868. The Sanicula Alpina rubescens, folio non serrato. C. B. Pin. 243. and the fourth Bears-Ear of Clusius. Hist. 304.*

The Leaves are fleshy, sharp-pointed, not indented; above, smooth, and of a shining Colour, underneath of a pale Green, and full of Veins, not so sharp and bitter to the Taste as the Leaves of the other Species: The Flowers are of a blush Colour, their Centre is concave and napped with a hoary Down; and the Pointal is prominent beyond the Stamina; they stand three or four

at most together, at the Top of a little slender Stalk, an Inch in length, seldom longer; the Seed is brown and larger than in the other Sorts: The Root is small, of a blackish Colour, and of a most luxuriant Growth; it grows naturally upon *Sneberg*, and the other *Alps* of *Stiria*.

The smallest Bears-Ear, with a Flower of a bluish and snowy Colour, *Auricula Ursi minima, flore carneo & niveo. J. B. 3. App. 869. Sanicula Alpina minima, carnea & nivea. C. B. Pin. 243.* The eighth Bears-Ear of *Clusius. Hist. 305.*

The Leaves of this Sort are scarce so big as the Nail of a Man's Finger, at the bottom where they join the Footstalk they are narrow, but broader towards the other Extremity and notched, of a green Colour, and full of Nerves, not so thick as those of the other Species, and bitter to the Taste: From among the Leaves a little slender Footstalk rises, scarce a Finger's Breadth high, sustaining one or two Flowers of a pale red Colour, shooting from a fringed Flower-Cup; they are without Smell, and have their concave Centre covered with a white Wool or Down, but the Pointal does not appear; it grows naturally upon several of the *Alps*.

The smallest Bears-Ear, with a Leaf hoary underneath, and full of Veins, and a Flower of a pleasant red Colour, *Auricula Ursi minima, folio inferius venoso & incano, flore suave-rubente. Ciasii. H. L. Bat.*

Jagged Bears-Ear, or the *Cortusa* of *Matthiolum*, with a red Flower, *Auricula Ursi laciniata, seu Cortusa Matthioli, flore rubro*: The *Sanicula montana, latifolia, laciniata*, C. B. or Mountain Sanicle, with broad and jagged Leaves, of *Caspar Bauhin, Pin. 243.* The *Cortusa* of *J. B. 3. 499.* and the *Cortusa* of *Matthiolum*, according to *Clusius. Hist. 307.*

This Species, in the beginning of the Spring, shoots out many thick and fat Leaves supported by pretty thick Footstalks; at their first rise they appear pursed and contracted into an orbicular Form, full of Nerves, and wrinkled, swoln and curled upon their upper Side like the *Ranunculus Lustanicus*, or a crumpled Cabbage Leaf; but when unfolded and expanded, they shew not only indented round

the Edges, but cut into six or more Jags, altogether green, shining above, but underneath of an overworn or obsolete green Colour, hot to the Taste: From among these Leaves rises a strong, upright, naked Stalk, six Inches long, of a purplish Colour, sustaining at the Top a tuft of small hollow Flowers, eight, nine, or more in Number, bending downwards like little Bells, of an elegant deep red Colour, inclining to a purple, having their Bottoms encircled with a white Ring, and five yellow *Stamina* or Threads, which scarce rise above the Bottom, surrounding an oblong middle Pointal; they emit an agreeable Odour like the red Bears-Ear: The Fruit into which the Pointal changes, contains a small brown Seed: The Root is fibrous and thready, and the whole Plant is covered as it were with a rough Wool or Down; it grows naturally upon the *Helvetian Alps*.

Jagged Bears-Ear, or the *Cortusa* of *Matthiolum*, with a violet coloured Flower, *Auricula Ursi laciniata, seu Cortusa Matthioli, flore violaceo*: *Sanicula montana, latifolia, laciniata, floribus violaceis, C. B.* Mountain Sanicle with broad and jagged Leaves, and Flowers of a violet Colour, of *Caspar Bauhin, Pin. 243.*

Jagged Bears-Ear, or the *Cortusa* of *Matthiolum*, with a white Flower, *Auricula Ursi laciniata, seu Cortusa Matthioli, flore albo*: *Sanicula montana, latifolia, laciniata, floribus albis, C. B.* Mountain Sanicle with broad and jagged Leaves, and white Flowers, of *Caspar Bauhin, Pin. 243.*

Bears-Ear with a large double Flower of a yellow Colour, *Auricula Ursi, flore magno, pleno, flavo. H. L. Bat.*

Bears-Ear with a large double Flower of a white Colour, *Auricula Ursi, flore magno, pleno, albo. H. L. Bat.*

Bears-Ear with a large double Flower of a purple Colour, *Auricula Ursi, flore magno, pleno, purpureo. H. L. Bat.*

Bears-Ear with a large double Velvet Flower, of a dark red Colour, *Auricula Ursi, flore magno, pleno, atropuniceo, holoferico. H. L. Bat.*

Bears-Ear with a large double Flower, of a crimson Colour, *Auricula Ursi, flore magno, pleno, coccineo. H. L. Bat.*

Bears-Ear with a large double Flower, partly-coloured, with a gold, white, and red intermixed, *Auricula Urſi, flore magno, pleno, ex aureo, albo, & panicco variegato.* H. L. Bat.

Mountain Bears-Ear, with a grassy Leaf, and a yellow Jessamin Flower, *Auricula Urſi, Alpina, gramineo folio, Jasmini lutei flore.*

It were tedious to subjoin specifical Descriptions to all the Varieties of the *Auricula*, they differing mostly in the Leaf and Colour of the Flower, sufficiently expressed by the several Titles.

All the Species of the *Auricula* or Bears-Ear are easily distinguished before they are in Flower, by their thick, compact, and smooth Leaves, which are smaller than those of the Primrose, terminating; for the most Part, from a roundish Figure into a Point.

They are of little, or rather no use in Physick.

TABLE XXXVII. Fig. I.

GENUS VIII.

Centaurium minus, the lesser Centaury;

IS a Plant with a Flower of one single Leaf A, shaped like a Funnel, and cut into several Segments; from its Flower-Cup B the Pointal C rises, which pierces the bottom Part of the Flower, and afterwards changes into a Fruit D; almost of a cylindrical or oval Shape, opening into two Parts EE, and divided into two feminal Cells F, stored with many small Seeds G.

Its Species are;

The lesser Centaury of Caspar Bauhin, *Pin.* 278. and of Dodonæus, *Pempt.* 336. which is the *Centaurium minus flore purpureo*, *J. B.* The lesser Centaury with a purple Flower of John Bauhin 3. 353.

It has a small, white, lignous, and fibrous Root, which darts obliquely into the Earth, and is without Juice, and insipid; it sends up but one Stalk for the most Part; about a Span or a Foot in length, corner-

ed, smooth, and firm: Of the Leaves some lie spread upon the Ground, others grow upon the Stalk in Pairs, disposed oppositely; they resemble those of St. John's-wort, but are larger, smooth, and of a pale green Colour; having three remarkable Nerves, which are most conspicuous upon the backside, and run lengthways: The Flowers grow upon the Tops of the Branches in tufts, they are single-leaved, shaped like a Funnel, divided into five Segments, and of a pleasant red Colour; the Cup consists of five narrow, sharp pointed Leaves: The *Stamina* or Threads are yellow, and the Pointal changes into a Fruit half an Inch in length, of a long and round Shape, membranous, and divided into two feminal Cells, which contain many minute Seeds, like Grains of Sand: It flowers in June, and grows plentifully in dry Pasturages; it refuses all culture; both its Leaves and Flowers are excessively bitter to the Taste; it is called by the *Greeks* Κενταύριον μικρόν, and by *Pliny*, because of its intense Bitterness; *Fel Terra*, or the Gall of the Earth.

Matthioli has given us an excellent Figure of this Species: *Fuchs*, full of his Design to discover the Plants of *Dioscorides*, and hot upon the Scent, has without Hesitation affirmed, that the Leaves of this Plant are small and oblong, like those of Rue; from whence we may conclude, that our lesser Centaury is not that of the Ancients.

The lesser Centaury with a very long Stalk, *Centaurium minus, caule longissimo*: This is the *Centaurium minus, longitudine duarum ulnarum Mentz.* or the lesser Centaury, with a Stalk two Ells long, of *Mentzelius*. *Pug.*

The lesser Centaury with a white Flower, *Centaurium minus, flore albo*, *C. B. Pin.* 278. *J. B.* 3. 353. *H. Reg. Par.* *Centaurium minus album Tabern.* *Icon.* 780.

The lesser Centaury with a Flower of the Colour of rusty Iron, *Centaurium minus, flore ferrugineo*, *C. B. Pin.* 278.

The lesser Centaury with a blue Flower, *Centaurium minus flore caeruleo*. *H. Cathol.*

The lesser Centaury, branched from top to bottom; with a large spread Flower, of an elegant Colour, from a blush or ruddy in-

Fig. 1.



Plantago. *Plantain.*

Fig. 2.



inclining to a lively Red, *Centaurium minus*, ab imo ad summum ramosum, eleganti flore majori, patulo, è panicante vegete rubro. *H. Cathol.*

The lesser, branched Centaury, *Centaurium minus, ramosum*. *Barr. Icon.*

The lesser Centaury, with a long Toad-flax Leaf, *Centaurium minus, linaria folio longiori*: This is the *Centaurium minus, angusto, pralongoque folio, flore rubello* *Barr.* or the lesser Centaury, with a narrow, and very long Leaf, and a Flower somewhat red, of *Barrelier. Icon.*

The lesser Centaury with a shorter Toad-flax Leaf, *Centaurium minus, linaria folio breviori*: *Centaurium minus, leptophyllon, polyanthes, accenso acutoque folio*, of *Barrelier. Icon.* and of *Boccone. Mus. Part. 2. 50. Tab. 43.*

The lesser Centaury, with the shortest Toad-flax Leaf, *Centaurium minus, linaria folio brevissimo*: This is the *Centaurium minus purpureum, angustifolium* *Barr.* or the lesser narrow-leaved Centaury, with a purple Flower, of *Barrelier. Icon.*

The lesser Centaury, growing upon the Sea-Coasts of Portugal, with its Stalks lying spread upon the Ground, Toad flax Leaves, and Flowers standing gathered into knots, *Centaurium minus, supinum, maritimum, Lusitanicum, linariae foliis, floribus glomeratis.*

The lesser spiked Centaury, with a red Flower, *Centaurium minus, spicatum, flore rubro*. *H. R. Par.*

The lesser Centaury, with Flowers growing in Spikes, from a bright red inclining to a Blush, and a broader sky-coloured or bluish Leaf, *Centaurium minus, spicato flore è puniceo rubente, latiori folio glauco*. *H. Cathol.*

The lesser Centaury with white Flowers growing in Spikes, *Centaurium minus spicatum album*. *C. B. Pin. 278. Prodrom. 130.*

From a small, white, and fibrous Root, it sends up a Stalk, which divides at the Bottom into two chanelled Branches, a Hand-breadth, or half a Hand-breadth in length, and these again into others: The Leaves are small and without Footstalks, those which are lowest next to the Ground, are somewhat round and broad; those which stand higher, narrow and sharp-pointed, two together oppositely placed, embracing the Stalk: At the Joints, with the Leaves,

all along the Branches up to the Top, mostly upon one Side, the Flowers rise, one only for the most part at a place; they stand in leafy Husks, and are of a white Colour, according to *Caspar Bauhin*; however *Mr. Ray* says, they are found often of a purple Colour; the Fruit and Seed is like unto that of the common Sort; it is found in plenty about *Montpelier*.

The smallest purple Centaury, *Centaurium purpureum minimum*. *Morif. H. R. Bles. Hist. Oxon. Part. 2. 566.*

The lesser American Centaury, growing upon the Sea-Coasts, with a large blue Flower, *Centaurium minus, maritimum, Americanum, flore amplo caruleo*. *Plumier.*

The lesser African Centaury, with a Gillyflower Leaf, and a Flower of an agreeable Red, *Centaurium minus, Africanum, Caryophylli folio, flore suave-rubente*: This is the *Centaurium minus, lini foliis & facie, flore amplo suave-rubente, Capitis Bona Spei*. *Breyn.* or the lesser Centaury of the Cape of Good Hope, with the Leaves and external Form of Flax, and a large Flower of an agreeable red Colour of *Breynius. Prodrom. 2. 27.* and the *Rapuntio affinis, lini facie Capitis Bona Spei*. *Breyn. Cent. 1. 175. Tab. 90.*

Thorough-leaved yellow Centaury, *Centaurium luteum persoliatum*, *C. B. Pin. 278. Persoliatum Centaurium luteum. J. B. 3. 355. Centaurium luteum, yellow Centaury of Camerarius. Epit. 427.*

It bears a Stalk sometimes single, sometimes branched, round, smooth, about a Span in length; at each Joint stand two sharp-pointed Leaves, which so closely encompass the Stalk, that it appears to pierce thro' them, like the *Periclymenon* or Honey-suckle of the hot Climates; the other Leaves about the Root and next to the Earth lie spread in a circular Disposition, not unlike those of the common Soap-wort, but larger, and of a whitish Colour, or besmeared (as is the whole Plant) with a fine bluish Dust, which is easily rubbed off with the Finger: The Top of the Stalk terminates in a Flower supported by a Footstalk an Inch in length, situated at the Division of the two Branches which shoot from each Side of it: These Branches, as they shoot in height, are first divided into two others, between which the Flower

stands upright, and these again subdivided into others, till they end in little small Twigs: The Flower is smaller than that of the purple Centaury, encompassed, instead of a Flower-Cup, with eight little narrow Leaves; it is, as are all the other of this Species, shaped like a Funnel, and cut into eight Segments, of a shining gold Colour: The Fruit into which the Pointal changes, is large and of a roundish Shape, enclosing great plenty of minute black Seeds: The Herb is extremely bitter, but not the Flower; it flowers in our climate in the Months of *July* or *August*, sooner or later, according to the Temperature of the Season, and grows commonly in mountainous Places, and dry meadow Grounds.

Thorough-leaved, yellow Centaury, with Leaves like those of the *Aphaca* or yellow wild Vetch of *Dodoneus*, *Centaureum luteum*, *perfoliatum*, *Aphaca Dodonei foliis*. *Scaglione*. *H. Cathol.*

Small yellow Centaury, *Centaureum luteum pusillum*, *C. B. Pin.* 278. This is the *Centaureum luteum novum* *Col.* or a new yellow Centaury, according to *Columna*. *Part.* 2. 78.

The Root is very small, lignous, and of a pale Colour; it sends up a Stalk about a Span in length; as others of this kind, it has Leaves lying spread upon the Ground at the Bottom, like those of the common Sort, with a purple Flower, but smaller; the Stalk is cornered, and garnished with Leaves of an oblong Figure, alternately disposed at certain Distances, two together, not half so large as those of the common Species, and nearly approaching to those of Rue: From its Top it shoots out two Flowers, or but one, standing in long Flower-Cups, and of a yellow Colour, which open and expand in the Month of *May*; there is nothing particular in the Seed nor Fruit: The Taste of this Plant is bitter, but not to such a Degree as the common purple Sort: *Columna* found it growing upon the Sea-Coasts near the Town called *Torre della Nunciata*.

Trefoil, yellow Centaury, *Centaureum luteum, tryphyllum*. *Ambros.* 145.

The smallest, Marsh yellow Centaury, *Centaureum palustre, luteum, minimum*. *Ray.* *Hist.* 1092. *Morif. Hist. Oxon.* *Part.* 2. 566.

The Root is white, woody, and single, sometimes furnished with large Fibres: The Leaves which grow nearest to the Root, are small, narrow, and oblong: The Stalk rises to the Height of two or three Inches, sometimes but one, sometimes more, and branched; at each of its Joints stand two narrow, sharp-pointed Leaves, oppositely placed: The Flowers shoot from the Tops of the little Branches, supported by long Footstalks, they are small, and of a yellow Colour, for the most Part shut, and so far as could be observed, divided into five Segments; the Seed-Vessel is of an elliptic Figure, and when ripe, opens into two hollow Parts shaped like the Keel of a Ship, (*in duas carinas per maturitatem dehiscit*) and pours out very small, roundish Seeds, from a brown inclining to a blackish Colour: *Mr. Ray* found it in marshy and wet Grounds in the extrem Parts of *Cornwall*, but never observed it any where else.

The smaller, thorough-leaved, yellow Centaury, with a winged Stalk, *Centaureum minus, luteum, perfoliatum, caule pene alato*.

Ala is used by the Botanists sometimes to denote those leafy Membranes which run along the Stalk lengthways, whence a Stalk is said to be *alatus* or winged; but this we shall explain more particularly in the Dictionary of the Technical Words, which shall be published at the Completion of the first Volume.

The lesser Centaury of *Candy*, with an oblong Flower, from a green inclining to a yellowish Colour, *Centaureum minus Creticum, flore oblongo, è viridi flavescente*.

It is the first Species, or the lesser Centaury with a purple Flower, which is of common Use.

Before the *Peruvian Bark* was happily known to the *European Nations*, the lesser Centaury, *Germander*, wild *Tansie* or *Silver Weed*, *Wormwood*, *Shepherd's Purse*, *Gentian*, with some other Plants of that Nature, were of frequent use, and celebrated for the Cure of intermitting Fevers, and are still used by some at this Time; and tho' they are not now equally esteemed, neither ought they to be altogether rejected, for that the reasonable use of them

has

has frequently carried off Fevers, when the Jesuit's Bark has failed.

As has been already hinted, both the Leaves and Flowers of this Plant are of an insupportable Bitterness, yet they give a considerable Tincture of red to the blue Paper, which founds a Conjecture that the Salt of this Plant differs not much from the natural Salt of the Earth, which is very bitter; yea, 'tis highly probable that the Salt of the lesser Centaury is mixed with a considerable Quantity of Sulphur and Earth, but in such a Manner that the Salt Armoniac lies more disengaged therein than the other constituent Principles; of the same Nature almost is the Salt which is found in Aloes, in the *Quinquina*, and the *Ippeacuana*; for these Substances which are extremely bitter, give a red Dye to the Solution of *Tournefol*; so that it is nothing surprizing that the lesser Centaury is aperitive, laxative, that it kills Worms, is of great Efficacy in conquering Fevers, especially such as are intermittent, and in re-establishing the Functions of the *Prima Via*.

Dioscorides, in the seventh Chapter of his third Book, affirms it to be purgative; and *Galen*, who wrote a whole Treatise upon the admirable Qualities and Virtues of this Plant inscribed to *Papias*, confirms it such; but *Dodoneus* robs it of this Power, and denies it from his repeated Experience, the least cathartick Faculty: *Caspar Hoffman* opposes the Opinion of *Dodoneus*, and subscribes to that of the Ancients: Our lesser Centaury, as has been already insinuated, and may be perceived by any who will survey

the Description of *Dioscorides*, is somewhat different from that of the Ancients, however the Tide of Authority determines it gently purgative; it opens Obstructions of the Spleen and Liver, is gently astringent, cleansing and vulnerary, carries off bilious and phlegmatick Humours, and discharges by the Pores superfluous Serosities; whence it is concluded beneficial in Fevers, the Jaundice, a Suppression of the monthly Courses, the Scurvy, Gout, Worms, and a Specific against the biting of a mad Dog.

Dioscorides and *Galen* recommend the use of it in the sciatic Pain, which is supported by the succeeding Testimony and Authority of *Fernelius*, who says, that the Decoction of this Herb administered by way of Glyster, affords wonderful Relief in this Distemper.

If we may rely upon the Testimony of *Matthiolus* the Commentator of *Dioscorides*, the Decoction of the Herb with its Flowers (for the Root is entirely useless) cures all Speckles, Morpew, and other Discolorations of the Skin. In *Tuscany*, he says, it is called *Biondella*, because a Lye of it serves to cleanse and whiten Women's Hair.

Simon Paulli tells us, that there is not a more excellent Remedy against the Scurf or Dandruff, and Scab of the Head, than to wash it with the Decoction of the lesser Centaury made in that Water wherein Pease have been boiled to such a Consistence, that they are fit to be bruised and squeezed out of their Skins; which at the same Time kills and destroys the numerous brood of Vermin.

S E C T. II.

Of Herbs with one single Leaf, shaped like a Salver, (or whose Tube dilates itself in its upper Part into a plain flat Surface) the Pointal whereof changes into a Fruit.

T A B L E XXXVI. Fig. 2.

G E N U S I.

Androsace,

IS a Plant with a Flower of one single Leaf A, the upper Part whereof is dilated into a flat Surface, bearing the Resemblance of a Salver, and cut into several Segments; and its lowermost Part or Bottom is pierced by the Pointal D, which changes into a round Fruit C, partly wrapped up within the Flower-Cup D, it gapes or opens at the Top E, and encloses several Seeds G, affixed to the Placenta F.

Its Species are,

Common, broad leaved annual Androsace, *Androsace vulgaris, latifolia, annua*: This is the *Alpine affinis, Androsace dicta, major* C. B. or a sort of Chickweed, called the greater Androsace, according to Caspar Bauhin. Pin. 251. The *Androsace altera* of Matthiolum, according to J. B. 3. 368. and the *Androsace altera* of Matthiolum, according to Clusius. Hist. 134.

The Root is single, slender, and fibrous; it sends up seven Stalks, more or less in number. (J. Bauhin says, he has sometimes observed it to bear twenty) about a Handbreadth, or a Span in length, naked or bare of Leaves, without knots or joints, round, hairy, and of a grassy Colour, sometimes purplish; the Top of the Stalks spreads into six or seven Footstalks, an Inch or more in length, so disposed as in some manner to imitate the Shape of an Umbrella or Para-

sol; the Place of their rise, or where they centre, is crowned or encompassed with seven oblong, hairy Leaves, somewhat notched, and each Footstalk supports a pretty large Flower-Cup, divided into five sharp Jags, imitating so many Leaves, in the Centre whereof the Flower stands: It is small, of a white Colour, and cut into five Segments: The Pointal, as the Flower decays, changes gradually into a round Fruit, about the bigness of a Pea, which contains many Seeds, triangular, oblong, and of a brownish Colour, not unlike the Seeds of Primrose, but larger; it has, besides, many Leaves which lie spread upon the Ground in a circular Disposition, two Inches long, half an Inch broad, and hairy, nervous, like those of the Plantain, and somewhat notched round the Edges, from a green inclining to a pale Colour; the little round Heads and Leaves, if chewed, are at first of an astringent Taste, but afterwards bitter, with some sharpness.

It grows plentifully in the Corn Fields near to the hot Baths of Baden, not far from Vienna.

Matthiolum tells us, that this Plant was sent to him by Corusius, from the Sea-Coasts of Syria, which however does not altogether agree with the Description of *Dioscorides*, which take in his own Words.

The Androsace is a bitter Herb, bearing slender rushy Stalks, without Leaves, which carry Husks upon their Tops, in which the Seed is contained; it grows upon the Sea-Coasts of Syria: If you read *ἐμυρνος*, that is, with Leaves; instead of *ἀνυρμος*, without Leaves, the *Androsaces altera* of Matthiolum, may be reckoned the true Androsace of *Dioscorides*, as most Authors do esteem

it; however, we leave this to be discussed by the curious Botanists.

Mountain Androsace, perennial, narrow-leaved, smooth, and bearing many Flowers, *Androsace Alpina, perennis, angustifolia, glabra, & multiflora*.

Mountain, perennial Androsace, narrow-leaved, hairy, and bearing many Flowers, *Androsace Alpina, perennis, angustifolia, villosa & multiflora*: This is the *Sedum Alpinum, hirsutum, lacteo flore* C. B. or the hairy, Mountain House-Leek, with a white Flower, of Caspar Bauhin: *Phyllo Dalechampi aliquatenus similis*, J. B. 3. 762. perhaps the *Chamejasme Alpina*, or Mountain ground Jasmin of the same Author; App. 869. The *Sedum minus* X, *Alpinum* IV. Clus. or the tenth lesser House Leek, and the fourth Mountain House-Leek of Clusius. Hist. LXII.

The Root is very small, and covered with a blackish Bark or Rind; it spreads along the Surface into many round circling Heads of Leaves, like the smaller House-Leeks; the Leaves are very small, oblong, and narrow (John Bauhin says they are about half an Inch in length, and broad as a Stalk of Corn) sharp-pointed, not indented, but very hairy, especially round the Edges, in form nearly resembling the Leaves of the common *Paronychia*: From among these round Heads of Leaves, rise some slender Stalks, two or three Inches in length, round, of a red Colour, hairy, stiff, naked, or bare of Leaves, supporting an Umbel or Tuft of Flowers: The Flowers rise out of little swelling Flower-Cups, which are cut into five Parts, and each stands upon little short Footstalks; they consist but of one single Leaf, yet so deeply cut into five Segments, that they appear pentapetalous, or composed of five distinct Leaves; each Segment is of a roundish figure; their Colour is a Blush, yet round the Centre they are of a deeper red: Mr. Ray says, that in the Flowers which he gathered, neither the *Stamina* nor Pointal were conspicuous; the Origine of the Umbel or Tuft is encompassed with several little green hairy Leaves, much smaller than those which lie spread upon the Ground, five for the most part in Number: John Bauhin found it in *Rhetia*, Mr. Ray upon

the highest Top of the Mountain *Jura*, called *La Dolaz*: The Flower, when fresh upon the Tops of the Mountains, is of a most pleasant Smell, like the *Jasmin*, and tho' of a milky White at first, yet afterwards in the Summer Season, inclines to a Red.

Perennial, Mountain Androsace, narrow-leaved, smooth, bearing one single Flower, *Androsace Alpina, perennis, angustifolia, glabra, flore singulari*: This is the eleventh smaller House-Leek of Clusius. Hist. LXI. And the *Sedum minus, graminifolium, lacteo flore* C. B. The lesser House-Leek with a grassy Leaf, and a Flower of a milky white Colour, of Caspar Bauhin. Pin. 284.

The Leaves are somewhat long, narrow, like those of Grass, hard, green, smooth, of a sourish Taste at first, which afterwards turns unpleasant and disagreeable: From among the Leaves one or two little Stalks rise, smooth, slender, and rushy, sometimes three Inches in length, rarely more, which support one Flower for the most part, sometimes two, of a white Colour, yellow in the Middle, cut into five Segments, shaped like a Heart, as it is commonly painted; it is found upon *Sneberg* and the neighbouring Cliffs, flowering there about the end of June or in July.

Oriental Androsace, with Leaves like those of the lesser Valerian, undulated and curled, *Androsace orientalis, foliis Valerianella, undulatis & crispis*.

Oriental Androsace, with a Leaf like that of the Bucks-horn Plantain, *Androsace orientalis, Coronopi folio*, a Variety of the preceding.

Oriental Androsace, with Leaves like those of Bastard St. John's-wort, and a Flower emitting a most agreeable Odour, *Androsace orientalis, foliis Coris, flore odoratissimo*.

The Androsace differs from the Bears-Ear in the Form or Shape of its Flower.

The first Species, which is the *Androsace altera Matthioli, &c.* according to the Testimony of *Discorides*, (Lib. 3. cap. 133.) taken in Wine to the Quantity of two Drachms, procures a copious Evacuation by Urine to hydropic Persons: The Seed and Decoction of the Herb produce the same

same Effect; and is usefully applied by way of Plaister or Ointment to the Part tortured with goutish Pains.

TABLE XXXVIII.

GENUS II.

Primula veris, Primrose.

THE Primrose is a Plant with a Flower of one single Leaf A B, that has the upper Part of its Tube extended into a plain flat Surface, bearing the Resemblance of a Salver, and cut into several Segments: From the Flower-Cup D E, which is fistulous, the Pointal Frises, which is fixed like a Nail in the lowermost Part of the Flower C, and when the Flower is decayed, is afterwards changed into an oblong Fruit or Shell G, lying almost concealed within the Flower-Cup D or E, gaping or opening at the Top H, and enclosing roundish Seeds I L, affixed to the Placenta K.

Its Species are,

Sweet smelling Primrose with a single yellow Flower, *Primula veris odorata, flore luteo, simplicis*. J. B. 3. 495. This is the *Verbasculum pratense, odoratum* of C. B. Pin. 241. and the *Primula veris flavo flore, elatior*, of Clusius. Hist. 301. Sweet-smelling Primrose, Meadow Cowslip, Oxlip, or petty Mullein.

From the Head of the Root abundance of Fibres spring forth, of a white Colour: The Leaves run together in a round Head, somewhat resembling those of Lettuce, being of a round and longish Figure, blunt-pointed, and wrinkled, with a Footstalk passing away into a thick Nerve; the Stalk rises from among the Leaves, being about a Span long, naked, and hairy, sustaining several Flowers, (six, seven, twelve, yea, sometimes to the Number of twenty-four) growing in tufts, single-leaved, and of an agreeable sweet Smell; their lower Part is a hollow Tube or Pipe, dilated in its upper Part into a flat Surface, shaped like a Salver, of a golden Colour, and cut into five Segments: The Flower-Cup is large

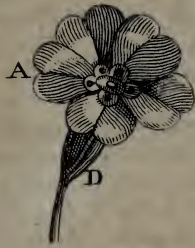
and fistulous, containing a Pointal that is changed into a Cod or Husk with one Seed-Vessel, which encloses roundish and cornered Seeds; it flowers with us in the Month of April, and is found commonly in Meadows and Pasturages.

Primrose with a pale coloured Flower, *Primula veris flore pallido, elatior*. Clus. Hist. 301. This is the *Verbasculum pratense vel sylvaticum, inodorum*, C. B. Meadow or Wood Petty-Mullein, without smell, of Caspar Bauhin, Pin. 241. and the *Primula veris caulifera, pallido flore inodoro, aut vix odoro*. J. B. Primrose bearing several Stalks, and a pale coloured Flower, with little, or rather without Smell, of John Bauhin 3. 496.

In its Leaves and Root it agrees with the common Primrose, or the *Verbasculum sylvorum majus, singulari flore* C. B. as also in its Flower, and the Hairiness of its Footstalks; it differs from it, in that it carries more Flowers upon its Stalk, disposed into a sort of Umbel or Tuft, like the sweet-smelling Primrose, but somewhat smaller, and more coloured; it agrees with the common Cowslip, in that it carries many Flowers upon the same Stalk; it differs from it in its Leaves, which resemble those of the common Primrose; in its Stalk, which at the Base of the Footstalks is encompassed with a red Line or Circle; in the hairiness of its Stalks and Footstalks, and in their length; its Flower too is of a paler Colour, larger, more expanded, and less scented, and the Flower-Cups are not so much swelled or less tumid; it differs too in this, that besides the Flowers which grow in Tufts, it bears others singly, shooting from the Root upon proper Footstalks, which Mr. Ray says he never observed in the *Paralysis odorata*, or sweet-smelling Cowslip; it is found commonly in Woods, and near to Hedges, sometimes in Pasture-Grounds; it flowers somewhat later than the common Primrose.

Primrose without smell, bearing a Flower without any Flower-Cup, *Primula veris inodora, flore calicis experto*: This is the *Paralysis flore flavo simplicis, inodora, absque calicibus*, Cowslip with a single yellow Flower, that has no smell nor Flower-Cup, of Parkinson. Parad. 245.

Prim-



Primrose with a double Flower, without smell, *Paralysis flore geminato, inodoro*: This is the *Paralysis flore geminato, inodora*, Cowslip with a double Flower, without smell, of Parkinson. *Paradis.* 245.

Primrose without smell, and with cut or divided Flower Cups, *Primula veris inodora, calicibus dissectis*: This is the *Paralysis inodora, calicibus dissectis* of Parkinson. *Paradis.* 245.

Primrose bearing Leaves at the Top of the Stalk instead of a Flower, *Primula veris floris loco in summo foliosa*: This is the *Paralysis flore fatuo*, or the foolish Cowslip of Parkinson. *Paradis.* 245.

This Species, in the Place of the Flower, bears at the Top of the Stalk a Collection of many little narrow greenish Leaves, with some yellow ones intermixed.

Hoary, Mountain Primrose, with a yellow Flower, *Primula veris, montana, incana, lutea*. C. B. Pin. 241. This is the *Paralytica rotundifolia, montana*, the round-leaved Mountain Cowslip of Columna. *Part.* 1. 256.

The Leaves of this Species are much more round than those of the others; fleshy, full of Veins, hoary underneath, woolly, and have their Edges so sinuated that they appear notched; they stand upon a long, slender, and three cornered Footstalk, about four Inches in length; it bears a Stalk about a Span in length, round, slender, and naked or bare of Leaves, supporting at its Top, upon a Base of little slender Leaves, ten, or fewer Flowers, of a pleasant yellow Colour, issuing out of hairy and hoary Flower-Cups cut into five Segments; within the Flower-Cup the Fruit lies, which is round, with a long Neck, and contains many black and angular Seeds: The Root is fleshy, and has many white fleshy Fibres depending from one Head, that are of a sweet Smell, and of a sharp, bitter Taste.

Primrose with a red Flower, *Primula veris flore rubro*. *Clus. Hist.* 300. This is the *Verbasculum umbellatum, Alpinum, minus* of C. B. Pin. 242. and the *Primula veris, minor, purpurascens* of J. B. 3. 498.

Primrose with a white Flower, *Primula veris flore albo*. *Clus. Hist.* 300. *Verbasculum Alpinum umbellatum, majus*. C. B. Pin. 242.

In the Beginning of the Spring it shoots forth ten or twelve Leaves, which appear

at first contracted into a round Head, but in process of Time open and disclose, and spread themselves upon the Ground; upon the Outside they are hoary, and as it were covered with a mealy Dust, and striped with the runnings of several greenish Nerves; but upon the Inside they are of a pale Green, two Inches in length, and one Inch broad, toothed like a Saw round the Edges, somewhat curled and thickish, more like to those of the Bears-Ear than the Primrose, and of a sharp Taste: From among these Leaves one or more Stalks rise, a Span, sometimes a Foot in length, naked, slender, without Joints, and sustain at their Tops a Tuft of many Flowers, that stand upon Footstalks, half an Inch in length, of an elegant pale Purple, or a bluish Colour; sometimes of a deeper Red, sometimes, but rarely, altogether white, all of them are yellowish round the Centre, and somewhat scented: The Seed is small and yellowish, and is contained in oblong Vessels: The Root is composed of many whitish Fibres, from the Heads whereof other new Plants spring up near to the Mother-Plant; it flowers in May, and is found in plenty in the northern Parts of Yorkshire and in Westmorland, in moist and marshy Grounds; transplanted into Gardens, whatever care is used in its Culture, it lives but a short Time: It is called by Parkinson, *Paralytica Alpina major*; and by Gerard, *Primula veris flore albo*; Birds-eyn with a white Flower.

The greater crimson Garden Primrose, with a leafy Stalk and Flower, *Primula veris hortensis, umbellata, caule & flore foliosa, major, coccinea*. H. L. Bat.

The lesser yellow Garden Primrose, with a leafy Stalk and Flower, *Primula veris hortensis, umbellata, caule & flore foliosa, minor, lutea*. H. L. Bat.

Garden Primrose, with yellow Flowers growing in Tufts, *Primula veris hortensis, flore luteo, umbellato*.

Garden Primrose, with white Flowers growing in Tufts, *Primula veris hortensis, flore albo, umbellato*.

Garden Primrose with a red Flower, growing in Tufts, *Primula veris hortensis, flore rubro, umbellato*.

Garden Primrose with Flowers of the Colour of rusty Iron, growing in Tufts, *Primula veris hortensis*, flore ferrugineo, umbellato: *Verbasculum Alpinum umbellatum*, majus, flore ferrugineo, odorato. H. R. Par.

Wild Primrose with double Flowers, *Primula veris multiflora*, sylvestris. Tabern. Icon. 319. *Verbasculum sylvestri magno plenoque flore*, wild Petty-mullein, with a large and double Flower. C. B. Pin. 242. *Primula veris*, floribus plenis ex singularibus pediculis, Primrose with double Flowers, each upon proper and peculiar Footstalks. J. B. 3. 497.

Primrose with double Flowers, *Primula veris multiflora*. Tabern. Icon. 318. *Primula veris Anglicana*, flore pleno, English Primrose with a double Flower. Eyst. *Verbasculum hortense*, multiplex, Garden Petty-mullein with double Flowers. C. B. Pin. 242. *Primula veris caulifera*, flore luteo, pleno, odorato, Primrose bearing many Stalks, with a yellow, sweet-smelling, and double Flower. J. B. 3. 496.

Primula veris, caulifera, prolifera, odorata. J. B. 3. 496. *Verbasculum proliferum*. C. B. Pin. 242. *Primula veris prolifera*. Tabern. Icon. 322.

Primula veris, prolifera, flore majore: *Verbasculum proliferum flore majore*. H. R. Par.

Primula veris, prolifera, flore albo: *Verbasculum proliferum, flore albo*. H. R. Par.

Primula veris, prolifera, flore purpureo: *Verbasculum proliferum, flore purpureo*. H. R. Par.

Primula veris, prolifera, flore ferrugineo. H. R. Monsp.

Primrose with large, single, and pale-coloured Flowers, each upon peculiar Footstalks, *Primula veris*, floribus ex singularibus pediculis, pallidis, majoribus, simplicibus. J. B. 3. 497. *Primula veris pallida flore, humilis*; low or dwarf Primrose, with a pale Flower. Clus. Hist. 302. *Verbasculum sylvestre, majus, singulari flore*, the greater wild Petty-mullein with a single Flower. C. B. Pin. 241.

The Root is moderately thick, of a red Colour, and scaly, and fastens it self in the Ground by the help of many whitish, and pretty large Fibres, which penetrate deeply into the Earth, and of others smaller and slenderer; it is somewhat astringent

to the Taste: The Leaves are above a Hand-breadth long, two Finger's Breadth broad, blunt-pointed, wrinkled, indented round the Edges, smooth upon the upper Side, and hairy underneath, with many hairy Nerves running along, from a narrow Origin gradually widening, and have no Footstalks, that may be properly so called: From among the Leaves the Flowers rise, upon slender Footstalks, round, without Leaves, and hairy, of a gentle purple Colour towards the Root, half an Hand-breadth, or a Hand-breadth in length; each Footstalk bears one Flower issuing out of oblong and pentagonal Flower-Cups, whose Angles are hairy, and their Brim divided into five sharp Segments: The Flowers are monopetalous, large, from a faint yellow inclining to a palish Colour, and are cut into five Segments shaped like a Heart, the Bottoms whereof are yellow; within, in the middle, the yellow Stamina are lodged, with a grassy Pointal: The Flower is of a strong Smell, but not disagreeable: The Seed-Vessel lies hid within the Flower-Cup; it grows commonly in Woods near to Hedges, and in thorny Brakes or Grounds that are full of Bushes and Brambles.

Primrose with a white Flower, *Primula veris flore albo*. Parkinson. Parad. 242. *Primula veris alia, flore albo*. J. B. 3. 497.

Primrose with a single green Flower, *Primula veris flore viridi, simplici*. Park. Par. 242.

Primrose with a double green Flower, *Primula veris flore viridi, duplici*. Park. Paradis. 242.

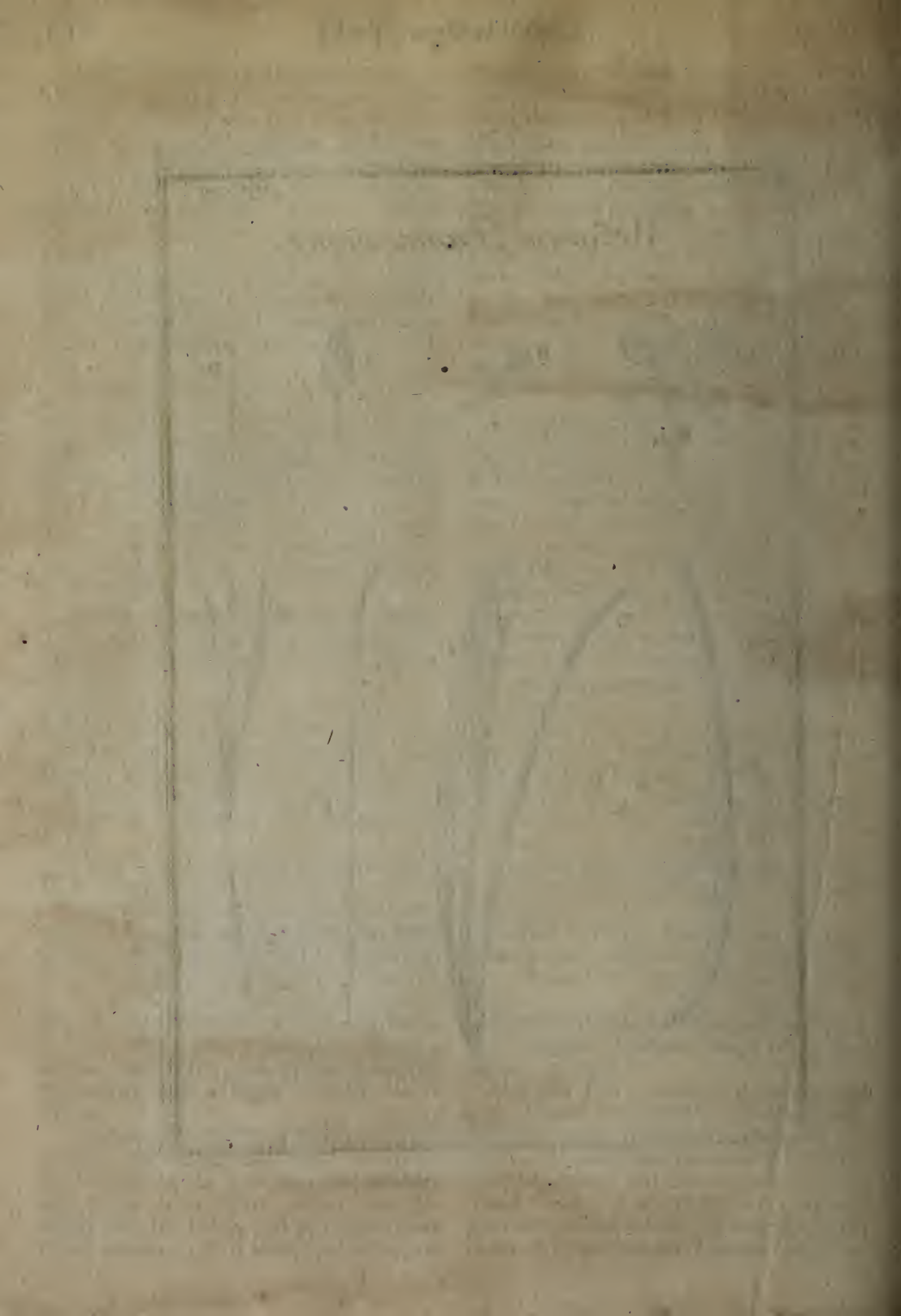
Primrose with a single Flower, of a greenish and white Colour, *Primula veris, flore viridante & albo, simplici*. Park. Par. 242.

Hesketh's Primrose, *Primula veris Heskethi, flore multiplici, separatim diviso*. Park. Par. 244.

This was first discovered growing wild in a Wood in Yorkshire, by Mr. Thomas Hesketh, whose Name it bears; it has Leaves and Roots like the wild Field Primrose; it brings forth among the Leaves a naked Stalk, of a greyish or overworn greenish Colour, at the Top whereof grows in the Winter-time one Flower only; but

Hesperis. *Dames-violet.*





in the Summer it bears a soft russet Husk or Hufe, wherein are contained many small Flowers, sometimes four or five, and oftentimes more, closely thrust together, which make one entire Flower, appearing like one of the common double Primroses, whereas it is one double Flower composed of a great many small single Flowers: This Species bears Flowers both in Summer and Winter.

Primrose with Flowers of a dark green Colour, and fringed, *Primula veris floribus obscure virentibus, fimbriatis*. J. B. 3. 498. *Primula sylvarum, floribus obscure virentibus, fimbriatis*. Lobel. Icon. 569. *Verbasculum sylvestre minus, singulari flore*, the lesser wild Petty-mullein, with one Flower. C. B. Pin. 242.

Primrose of Constantinople, with a Flower of a pale purple Colour, *Primula veris Constantinopolitana, flore dilute purpureo*: This is the *Carchichec Turcarum*, sive *Primula veris Constantinopolitana*, Corn. Primrose of Constantinople, called *Carchichec* by the Turks, according to Cornutus. 85. *Verbasculum Constantinopolitanum*. H. R. Par.

The Leaves differ nothing from those of the common Sort, but in their Softness; some white Ribs, broader in their lowermost Parts, and slightly coloured with red, distinguish the Middle of the Leaves; their Edges are gently notch'd, and they grow up numerous and thickly set together in a circular Disposition from a thick, fibrous, and whitish Root; from among the Leaves many finger-long Footstalks rise, which support greenish Flower-Cups channelled into so many little Furrows, as there are to be Segments in the succeeding Flowers, which are commonly five, each whereof represents the Figure of a Heart, and are of a pale purple Colour, except at the Bottoms, where they are of a bright Yellow; the Centre of the Flower shines out with five refulgent Rays, and shows like a Star; it keeps its Flowers almost throughout the whole Year: The Seed is white, like that of the white Poppy; as it is a rare Plant the Herb-Merchants usually cut the Root into several Parts, to propagate it by that means as well as by the Seed: Such is the lively Nature of the Flower, that it raises its Head above the Snows even in the middle of Winter, which is signi-

fied by the *Turkish* Appellation; *Carchichec*, importing, as 'tis said, a snowy Flower.

There are infinite Varieties of this Species, from the diversified Colour of the Flower.

Primrose of Constantinople, with a large purple Flower, *Primula veris Constantinopolitana, flore majore, purpureo*: *Verbasculum Constantinopolitanum, flore purpureo*. H. R. Par.

Primrose of Constantinople with a smaller purple Flower, *Primula veris Constantinopolitana, flore minore, purpureo*: *Verbasculum Turcicum sive Carchichec Turcarum flore purpureo, minore*. H. Edinburg.

Turkish Primrose with a Vermilion or red Flower, *Primula veris Constantinopolitana, flore miniato*: *Verbasculum Constantinopolitanum, flore miniato*. H. R. Par.

Turkish Primrose with a Flower of the Colour of rusty Iron, marked with white Spots, *Primula veris Constantinopolitana, flore ferrugineo, punctis albis notato*: *Verbasculum Constantinopolitanum, flore ferrugineo, punctis albis notato*. H. R. Par.

Turkish Primrose with a white Flower, *Primula veris Constantinopolitana, flore albo*: *Verbasculum Constantinopolitanum, flore albo*. H. R. Par.

Turkish Primrose with a Flower of a pale blush Colour, *Primula veris Constantinopolitana, flore dilute carneo*: *Verbasculum Constantinopolitanum, flore dilute carneo*. H. R. Par.

Turkish Primrose with a yellow Flower, *Primula veris Constantinopolitana, flore luteo*: *Verbasculum Constantinopolitanum, flore luteo*. H. R. Par.

Turkish Primrose, with a Flower of a yellowish Colour, *Primula veris Constantinopolitana, flore flavescente*: *Verbasculum Constantinopolitanum, flore flavescente*. H. R. Par.

Turkish Primrose with a Flower of a worn-out pale Colour, *Primula veris Constantinopolitana, flore obsolete pallido*: *Verbasculum Constantinopolitanum, flore obsolete pallido*. H. R. Par.

Turkish Primrose with a Flower of a decayed or worn-out Colour, *Primula veris Constantinopolitana, flore obsoleti coloris*: *Verbasculum Turcicum sive Carchichec Turcarum, flore obsoleto*. H. Edenburg.

The smallest Primrose, with a Leaf like that of Lettuce, and a Root smelling like Annise, *Primula veris minima, lactuca folio, radice Anisum redolente.*

Oriental Primrose with a clary Leaf, *Primula veris orientalis, Hormini folio.*

Oriental Primrose, of a disagreeable Smell, like that of Bugs, *Primula veris orientalis, Cimices redolens.*

Oriental Primrose with a Lettuce Leaf, and purple Flowers growing in Umbels, *Primula veris orientalis, lactuca folio, flore umbellato, purpureo,*

Oriental Primrose with a very high Stalk, a very narrow Leaf, and purple Flowers growing in Umbels, *Primula veris orientalis, caule altissimo, folio angustissimo, flore umbellato, purpureo.*

It is called *Primula veris*, Primrose, or the first of the Spring, because most of its Species then begin to flower; such as want Flower and Seed are known and distinguished by their Leaves, which are wrinkled, and as it were rough, slender, and bear some Resemblance of those of Lettuce.

The Flowers of the first Species chymically analyzed, yield a copious Quantity of an Acid, a small Quantity of urinous Spirit, no concrete volatile Salt, and an indifferent Portion of Oil and Earth; they contain a volatile, aromatic, and oily Salt.

They are aperitive, and proper to re-establish the disordered Course of the Spirits: In the Apoplexy and Palsy, *Tragus* prescribes the Conserve, or the distilled Water of the Flowers; the Spirit has the same Virtues for the Cure of the same Distempers: The Leaves and Root of this Plant are aperitive, and vulnerary. *Tournefort.*

The twenty-third Species, or the *Primula veris floribus ex singularibus pediculis, pallidis, majoribus, simplicibus.* *J. B.* the *Verbasculum hyloestire majus, singulari flore* of *C. B.* Common Primrose, is hot, and dry, and somewhat astringent to the Taste; it is of great Efficacy in the Cure of melancholic and pituitous Distempers; and singularly beneficial in a Diarrhœa: It contributes too to strengthen the Stomach and the other *Viscera.* *Ray.*

TABLE XXXVII. Fig. 2.

GENUS III.

Plantago, Plantain,

Is a Plant that bears a Flower of one single Leaf A, shaped like a Salver, and for the most part divided into four Segments: From its Bottom rises the Pointal C, encompassed with *Stamina* or Threads B, which commonly surpass it in length, and is afterwards changed into a Fruit or Shell D, almost of an oval or conical Figure, which when ripe, opens into two Parts E F, the one whereof lies incumbent upon the other, and is divided by an intermediate Partition, as it were, into two Cells, which inclose oblong Seeds H, affixed to the *Placenta* G.

Its Species are,

Smooth, broad-leaved Plantain, *Plantago latifolia, glabra.* *C. B. Pin.* 189. This is the *Plantago maxima, Hispanica*, the great Spanish Plantain of *Cornutus.* 162.

The Leaves which lie spread upon the Ground, six, seven, or eight in Number, are smooth, fleshy, and nervous, six Inches long, four broad, and the sustaining Footstalks near a Hand-breadth in length, at first of a reddish Colour: The four or five naked Footstalks which rise from among these Leaves, are two Cubits in height, of a dark red Colour, round, and channelled, and bear a Head or Spike a Foot long: The Root is blackish and fibrous; sometimes it is found to have Leaves a Foot long, and half a Foot broad, somewhat torn or jagged at the Edges; and the Stalk which supports the spiked Head of a greater Height, with Leaves at the Rise or Origine of the Spike: It is found about *Montpelier.*

Broad-leaved and crumpled Plantain, *Plantago latifolia, sinuata.* *C. B. Pin.* 189. This is the *Plantago major, folio glabro, non laciniato ut plurimum*: The greater Plantain with a smooth Leaf, not jagged for the most Part, of *J. B.* 3. 502. and the *Plantago major* of *Dodonæus.* *Pempt.* 107. Common Plantain or Way-bread.

The

The Leaves are broad, sometimes found jagged, and as it were indented near to the Place where they join their Footstalks, otherwise even, and without Incisures, covered with a short hairy Down, which at their first shooting, while yet young and tender, is very conspicuous; but when they are older and more explained, scarce apparent, so that then they seem altogether smooth; they have seven Ribs or Nerves running lengthways, mostly conspicuous upon their Backside, and they lean upon long Footstalks, in which this Species differs from the *Arnoglossum* or Lambs-Tongue: It sends up several Stalks from the same Root, round, hairy, shorter than those of the last named, and reflected towards the Earth; but the spiked Head of the Flower is much longer, the *Stamina* or Threads shorter, with purple Chives; each little Flower is succeeded by two Seeds: It grows commonly every where by the Way-sides.

Plantain with a broad Leaf, of a blood Colour, *Plantago, lato sanguineo folio. H. R. Monsp.*

Broad-leaved hoary Plantain, *Plantago latifolia, incana. C. B. Pin. 189. Plantago major, hirsuta, media à nonnullis cognominata, J. B. 3. 504. Plantago media Dodon. Pempt. 107.* Hoary Plantain or Lambs-Tongue.

The Root is thick, and as it were bit and gnawed, and fastens it self in the Ground by the Help of many Fibres which shoot from the Head: The Leaves lie flat upon the Ground, have shorter Footstalks than the great Plantain, and seven remarkable Nerves or Veins, no Incisures round the Edges, and are covered with a thick hoar Lanugo or Wool: From among the Leaves rise several Stalks, round, hairy, naked not channelled or furrowed, about a Foot in length, and bear at their Tops a Spike two Fingers long, composed of Flowers closely compacted: The *Stamina* are of a pale purplish Colour, and bear white Chives, the seminal Vessels are small, of a round Figure, and inclose two Seeds like the of the *Psyllium*, but smaller; the little Flowers are divided into four Segments, sharp-pointed, somewhat dry, and as it were membranous: It grows commonly in gravelly Soils.

Mr. Ray says he cannot perceive wherein the *Plantago Salmanticensis, villosa, seu incana lanuginosa* of *Clusius*, differs from this last described, except in this, as he writes, that thro' the greatest Part of the Year it is without Stalk and Flower.

Broad-leaved hoary Plantain, bearing a white Spike, *Plantago latifolia, incana, spica albâ. H. Edenburg.*

Broad-leaved, Rose-Plantain, with an expanded Flower, *Plantago latifolia, rosea, flore expanso. C. B. Pin. 189. Plantago rosea, flore expanso. J. B. 3. 503. Plantago rosea. Lobel. Icon. 304.* Rose-Plantain.

It is thus described by *Parkinson*, under the Title of *Plantago latifolia, rosea, multiformis*: This kind, says he, of Rose-Plantain, is of many sorts, yet all of them have large and sometimes hoary green Leaves spread on the Ground, either whole like the former great Plantain, or a little jagged toward the lower Part: From among these rise up short naked Stalks, bearing each at the Top, either a broad round Head, composed of many small short green Leaves, in the fashion of a Rose, or a spiked thick long Head, made of many shorter green Leaves, bushing thick below, and smaller upwards; sometimes one Plant will have both these Forms together; some again will have another short Spike of green Leaves rising from the middle of the Rose, and others at the bottom of the Rose or Spike, will have one or two other small Tufts, either round or long; one sort there is likewise, whose long spiked Heads are parted into several spread Heads, and therefore called *Spiralis*; other varieties also are sometimes found in some of this kind, as nature lists to produce them.

Broad-leaved, Rose-Plantain, with Flowers disposed as it were in a Spike, *Plantago latifolia, rosea, floribus quasi in Spica dispositis. C. B. Pin. 189. Plantago rosea. J. B. 3. 503. Plantago multiplex. Tabern. Icon. 733.*

Broad-leaved Plantain with a spread Spike, *Plantago latifolia, spica multiplici sparsâ. C. B. Pin. 189. Plantago major, paniculâ sparsâ. J. B. 3. 503. Plantaginis majoris spica multiplex. Dodon. Pempt. 107.* Belome-Plantain.

The only difference between this and the common broad-leaved Sort, consists in the Form of the Spike, which in this is not closely compacted, but spread and divided, loaded with a numerous Increase of little grassy Flowers, collected into Clusters: It was found by *Thomas Johnson*, the Corrector of *Gerard*, growing in the Isle of *Thanet*.

Broad-leaved, hoary Plantain, with Spikes of various Forms, *Plantago latifolia, incana, spicis variis*. C. B. Pin. 189. *Plantago peregrina, latifolia Gareti*, *Garet's* broad-leaved, exotic Plantain. *Clus. Hist.* CIX.

The Leaves of this Sort are like those of the Rose-Plantain described above, but more hoary, as is the whole Plant: The Heads are wonderfully different in Form, for some of them resemble those of the Rose-Plantain, others are formed into a Spike, some shoot as it were a short Spike out of the middle of the Rose, others again have little Heads dependent from the bottom of the Spike; and there are others otherwise shaped.

It appears, Mr. *Ray* says, to be the hoary Plantain, or the *Arnoglossus rosea*, only diversified in the Form of the Spike, by an ingenious Play of Nature.

The lesser broad-leaved and smooth Plantain, *Plantago latifolia, glabra, minor*. C. B. Pin. 189. *Plantago latifolia, minor*. *J. B.* 3. 505. *Taber. Icon.* 731. It differs only from the great Plantain or Way-bread, in the Smallness of its Parts.

The lesser broad-leaved, hairy Plantain, *Plantago latifolia, hirsuta, minor*. C. B. Pin. 189. *Plantaginis media genus minimum*. *Thal.* 86.

Hoary Plantain, or Plantain napped with a hoary Down, *Plantago villosa seu incana, lanuginosa*. C. B. Pin. 189. This is the *Plantago Salmanticensis*, Plantain of *Salamanca*, according to *Clusius*. *Hist.* CIX.

Great narrow-leaved Plantain, *Plantago angustifolia, major*. C. B. Pin. 189. *Plantago lanceolata*. *J. B.* 3. 505. *Plantago minor*. *Dodon. Pempt.* 107. Rib-wort or Rib-wort-Plantain.

The Root is long, fibrous, or stringy, like that of the broad-leaved Sort; the Leaves are long, narrow, sharp-pointed, furnished with five remarkable Nerves or

Veins, running the whole length of the Leaf, hairy, of a dark green Colour, sometimes found indented, but most commonly without Incisures: The Stalks are about a Foot in length, naked, channelled, and cornered, and bear at their Tops, Spikes half a Foot, or a Span long, shorter, but greater than those of the common broad-leaved Plantain, and composed after the same manner, of several little Flowers closely compacted: The Stamina are long and slender, and sustain large Chives from a yellow inclining to a white Colour: The Spike flowers gradually from the bottom towards the Top; so that there are not so many Stamina or Threads to be seen at once as in the broad-leaved Species; before it flowers it is of a blackish Colour, whereas in the other sort it is greenish; the Seeds are larger and longer than in the foregoing Sorts: It is found commonly in Pasturage-Grounds.

Small, narrow-leaved Plantain, bearing leafy Heads at the Tops of its Stalks, *Plantago angustifolia, minor, summo caule foliosa, seu prolifera nostras*. *Pluk. Almag. Bot.*

Plantago angustifolia, prolifera. C. B. Pin. 189. *Plantago angustifolia Gareti prolifera*. *Clus. Hist.* CX.

This Plant has many Leaves, shooting from the Root like those of the Rib-wort-Plantain; from among which rise naked Footstalks, or rather little Stalks, supporting at their Tops, Heads composed of many Leaves, somewhat long, but smaller and narrower than those which rise immediately from the Root: Sometimes out of the middle of those leafy Heads several other Footstalks shoot, which, instead of a pike, bear other leafy little Heads at their Tops, for which reason it was called *Proserpa*: The Root too sends up some other Footstalks, which bear only little leafy leads.

These little Heads, in form imitating a Rose, vary much in the narrowness and broadness of their compounding leaves; for some have their Leaves narrower and longer, but not closely set together, imitating a loose Rose; others have their little Leaves broader and shorter, but more compact, forming a more beautiful Rose; this Species is described by *Gerard*, under the Title of *Plantago quinquenervia, seu*; and by

by Parkinson, under the Title of *Plantago angustifolia, rosea & multiformis*.

Narrow-leaved, silver Plantain, *Plantago argentia, angustifolia, à Rupe Victoria*.

Plantain of Sevil, narrow-leaved, and indented, *Plantago angustifolia, serrata, Hispanica*. C. B. Pin. 189. *Plantago angustifolia, alia*, another narrow-leaved Plantain, according to Clusius. *Cura Post. in fol. 34*.

Narrow-leaved, shrub Plantain, *Plantago angustifolia, fruticans. Clus. Cura Post. in fol. 34*.

This shrub Plantain is in all Things like the Rib-wort, but that the Leaves are whiter, the Stalks high and woody, with small Leaves on them; the Heads or Spikes are shorter and softer: It grows in Spain upon the Banks of Rivers.

Small, Spanish three-ribbed Plantain, broad-leaved and hoary, *Plantago trinervia, latifolia, minor, incana, Hispanica. Barr. Icon*.

Small narrow-leaved Plantain, *Plantago angustifolia, minor. Tabern. Icon. 732. Plantaginis lanceolata species minima*, the smallest Species of the Rib-wort-Plantain. *J. B. 3. 505*.

Bulbous, and hairy Plantain, *Plantago pilosa, bulbosa. C. B. Pin. 189*. This is the *Plantago pilosa, laciniata Appula*, hairy, jagged Plantain of Naples, according to Columna. *Part. 1. 259*.

This bulbed Rib-wort hath a long, small and round Head, for the upper Part of its Root, like unto a small Bulb or Onion, of the Bigness of an Hazel-Nut, or bigger, from whence shoot down into the Ground many thick and black long Fibres: From this Head or Bulb spring up many long and narrow Leaves, like those of the first Rib-wort, lying upon the Ground, but that each of them are more hairy and indented, or cut on the Edges into gashes, separate a good Distance one from the other, somewhat like unto Bucks-horn Plantain, from among which rise up slender, hairy, round Stalks, about a Foot high, bearing such like spiked Heads as the Rib-wort does, with pale yellow Bloomings or Flowers, which are succeeded by small blackish Seed.

Hares-Foot-Plantain, *Plantago angustifolia, paniculis lagopi. C. B. Pin. 189. Plantago quin-*

quenervia, cum globulis albis, pilosis, Ribwort-Plantain, with little white, round, and hairy Heads. *J. B. 3. 504*.

The Root is oblong, and has many long Fibres, of a reddish Colour; it sends up many Leaves, distinguished with five Ribs, and hairy, they lie spread upon the Ground, their Footstalks unite at the Head of the Root, but their Union scarcely appears, the part is so thickly covered with a woolly Down: The Stalks are many, sometimes surpassing twenty in number, some of them stand upright, others lie flat upon the Ground; they are naked, somewhat hairy, and round, of unequal Height, some of them a Hand-breadth and a Span in length, others scarce exceed two or three Inches, and support Heads covered with a white hairy Nap, resembling the Willow-Catkins: Caspar Bauhin compares them to the little Heads of Hares-Foot, upon the Sides whereof rise small reddish Flowers upon most slender Footstalks, they are succeeded by a very small and minute Seed: It grows about Montpelier and Nemours.

Three-ribbed Plantain, with the narrowest Leaf, *Plantago trinervia, folio angustissimo. C. B. Pin. 189. Prodrom. 98. Plantago angustifolia, minor, spica hirsuta alba, foliis ex atroverentibus valde pilosis*, small narrow-leaved Plantain, with a white hairy Spike, and very hairy Leaves, of a dark green Colour. *J. B. 3. 506*.

Mountain-Plantain, with a long, narrow, and blackish Leaf, *Plantago Alpina, folio angusto, longo, nigricante. Boccone. Mus. Part. 2. 22. Plantago Alpina, folio nigricante ejusdem. Tab. 5*.

Three-ribbed, Mountain-Plantain, *Plantago trinervia, montana. C. B. Pin. 190. Plantago incana, trinervia, montana. Col. Part. 1. 259*.

Whitish, narrow-leaved Spanish Plantain, *Plantago angustifolia, albida, Hispanica. Holosteum Plantagini simile. J. B. 3. 508. Holosteum hirsutum, albicans, majus. C. B. Pin. 190. Holosteum Salmanticense, minus. Clus. Hist. 111. Spanish Sea-Plantain*, according to Parkinson.

The Root is long, thick, blackish, woody, and has several Heads: The Leaves are all over whitish, hairy, and woolly, some of them a Hand-breadth long, some much smaller,

smaller, not wholly half an Inch broad; they are distinguished with five Nerves running lengthwise, lie spread upon the Ground, and are astringent to the Taste: The Stalks are about a Span in length, or shorter, (some of them are found a Cubit in length) hairy too, and carry a long Spike of some Inches, sometimes but of one, in Flowers and Seeds like that of the common or Bucks-horn Plantain: It grows about *Montpelier* in dry Olive Grounds: *Clusius* found it upon some parched dry Eminences near to *Salamanca*, where it flowered in *May*; about *Montpelier* it flowers in *April* and *May*, sometimes in Autumn: It is a Plant that cannot endure Cold.

Narrow-leaved, whitish Plantain of *Montpelier*, *Plantago angustifolia*, *albida*, *Montpelienfis*: *Holosteum Monspessulanum*. *J. B. 3. 508.* *Holosteum hirsutum*, *albicans*, *minus*. *C. B. Pin. 193.* *Holosteum Salmanticense minus*. *Clas. Hist. CXI.*

The greater Plantain, with thin Leaves, growing upon the Sea-Coasts, *Plantago maritima*, *major*, *tenuifolia*: *Coronopus maritimus*, *major*, the greater Sea Bucks-horn Plantain. *C. B. Pin. 190.* *Coronopus maritima nostras*. *J. B. 3. 511.* *Plantago angustifolia*. *Dodon. Pempt. 1018.*

The lesser Plantain, with thin or slender Leaves, growing upon the Sea-Coasts, *Plantago maritima*, *minor*, *tenuifolia*: *Holosteum Massiliense*. *C. B. Pin. 190.* *Coronopi & sedi montani media Planta Massiliensium*. *Lob. Icon. 438.*

The smallest maritime Plantain, with a stiff grassy Leaf, *Plantago maritima*, *minima*, *folio gramineo rigido*: *Coronopus maritimus Raynauderi*. *J. B. 3. 511.*

The greater Plantain, with a grassy Leaf, *Plantago gramineo folio*, *major*: *Holosteum strictissimo folio*, *majus*. *C. B. Pin. 190.* *Coronopus serpentina*. *J. B. 3. 510.* *Serpentina Matthioli*. *Dod. Pempt. 109.*

The Root is remarkably thick and long, divided into some few Heads, from whence shoot a great Number of Leaves, long and narrow, like Grass; from among these some Stalks rise, a Hand-breadth or more in length, naked, without knots, bearing small spiked Heads: It grows upon the Mountains of *Provence*, *Auvergne*, and in

several Parts of *Italy*, according to the Testimony of *Lobel*.

The smaller Plantain with a Grass Leaf, *Plantago gramineo folio minos*: *Holosteum strictissimo folio*, *minus*. *C. B. Pin. 190.* *Coronopus serpentina*, *omnium minima*. *J. B. 3. 511.* *Serpentina omnium minima*. *Lob. Icon. 439.*

The smallest, narrow-leaved Plantain of *Marseilles*, with little Heads, like those of the Hares-Foot, *Plantago angustifolia*, *minima*, *Massiliensis*, *lagopi capitulo*.

Marsh Plantain of *Paris*, with a Grass Leaf, *Plantago palustris*, *gramineo folio*, *Monanthos*, *Parisiensis*: *Holosteum aquaticum*, *Alsinantherum*. *H. R. Par. App.*

Hairy Portugal Plantain, growing upon the Sea-Coasts, with a long Spike, *Plantago Lusitanica*, *hirsuta*, *maritima*, *spica longiori*.

Hairy Portugal Plantain, growing upon the Sea-Coasts, with a shorter Spike, *Plantago Lusitanica*, *hirsuta*, *maritima*, *spica breviori*.

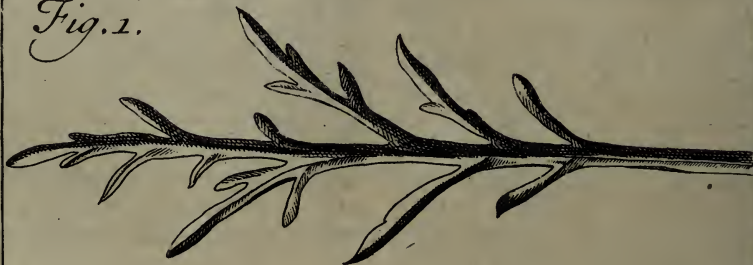
The smallest, woolly, Candy Plantain, with a 'hook'd or crook'd Stalk, *Plantago Cretica*, *minima*, *tomentosa*, *caule adunco*: *Holosteum seu Leontopodium Creticum*, *Lions-Foot-Plantain* of *Candy*. *C. B. Pin. 190.* *Leontopodium*. *Prosp. Alp. Exot. 114.*

This Candian Plant, from a reddish Root, somewhat thick and scaly as it were at the Head, gradually lessening and tapering downwards, and spread into many long Fibres, sends up many long and narrow soft woolly Leaves, an Hand-breadth long, each distinguished with three Ribs, among which rise up diverse small and short Foot-stalks, about two or three Inches long, and covered with a soft reddish woolly Down, each whereof supports a short thick reddish Head, like unto a Plantain Head, bearing several whitish Flowers, with black Spots in their Centre, shewing like so many Holes; which are succeeded by a small brownish Seed, inclosed in their Husks, very like unto Plantain-Seed, or the Seed of the *Psyllium* or Flea-wort, which Heads, when they are full ripe, bend downwards to the Ground, and are so contracted or drawn together, that they resemble a Lion's-Foot clasped, whence some gave it the Name of *Leontopodium*.



Tab. 39. *Coronopus. Bucks-horn plantain.* ^{p. 146.}

Fig. 1.



Pfyllium. Flea-wort.

pag. 146.

Fig. 2.



Whitish Plantain of the Isle of Scio, like to that of *Montpelier*, with a Leaf scarce a Line and an half broad, *Plantago Chia, al-bida, Monspeliensis similis: folio vix sesquili-neam lato.*

Plantain of Greece, with a stiff Leaf, slightly indented, and narrow, and a very high Stalk, *Plantago Græca, folio rigido, lev-iter dentato, angusto, caule alissimo.*

Oriental Plantain with a Scorzonera Leaf, *Plantago orientalis Scorzonera folio.*

The Species of the Water-Plantain we have reduced or classed under the Genus of the *Ranunculus* or Crows-Foot.

Some are of Opinion, that the Name of *Plantago* was given to this Plant by way of Excellence, on account of its admirable and excelling Virtue: Others again think it was so called à *Planta pedum*, the Sole of the Foot, either because of its Resemblance thereto, or that it is thereby commonly trampled.

The *Plantago latifolia sinuata. C. B. Plantago major, folio glabro non laciniato ut plurimum. J. B. Plantago major. Dod.* Great Plantain or Way-bread, is that of all the Species which is commonly used in the Shops; its Leaves are bitter and astringent, give but a faint Tincture of Red to the blue Paper; its Roots colour it with a deeper Red, and are only astringent; which shows that in the Leaves the Salt-Armoniac and the terrestrial Parts of this Plant lie involved and embarrassed in a large Quantity of Sulphur; so that it is vulnerary, febrifuge, and astringent: *Tragus* esteemed it much in phthisical Cases: In the Countrey they take the Juice from two Ounces to four, in the beginning of intermitten Fevers; two Drachms of the Extract of this Plant, or one Drachm of its Seed powdered, will effectually stop and cure a Diarrhæa, and all sorts of Hemorrhages: The Pisan and Water of Plantain have the like Vir-tues, they are prescribed in a Dysentery, Spitting of Blood, in an excessive hemor-rhoidal or menstrual Flux, in the Whites, and in losses of Blood: In fine, Plantain is used in all vulnerary and detersive Po-tions: To remove an Inflammation of the Eyes, *Camerarius* orders a *Collyrium* of the Juice of the Leaves and Root of this Plant mixed with Rose-water and Sugar:

Simon Paulli successfully used the Extract of Plantain, with the Decoction of Sarsaparilla, in the Cure of one who pissed Blood upon a Clap. A Gargarism made of Plan-tain is highly useful in all Maladies of the Throat: This Plant enters as an ingredient in the Powder of *Julian Paulmier*, for the Cure of Madnefs. *Tournefort.*

The Root of this Plant taken fresh out of the Ground, washed, and gently scraped with a Knife, then put into the Ear, cures the Tooth-ach like a Charm, as has been sometimes observed. *Simon Paulli.*

In an umbelical *Hernia* the Cataplasim of *Joel*, which is composed of the *Arnoglossus* and the *Muscus*, which grows upon the *Acacia Germanica* or Sloe-Tree, boiled in Wine and bruised together, is highly com-mended: *Simon Paulli* tells us, that he has seen an umbilical *Hernia*, not only in Boys, but in advanced Matrons, cured as effectually by a Cataplasim of Plantain, and the *Muscus Quercinus*, or Oak-Lungs, as by that Mols which grows upon the *Prunus Sylvestris* or Sloe-Tree: But it must be that which is tender, easily crumbles, and is of a whitish Colour, that grows upon the Leaves, not on the Trunk, and is without all earthy Taste and Smell.

Riverius informs us, that the French Wo-men, to prevent abortion, take ʒβ of Plan-tain-Seeds in Broth, or in an Egg, during the whole nine Months of their being with Child, and not without Success.

T A B L E XXXIX. Fig. 1.

G E N U S IV.

Coronopus, Bucks-horn Plantain,

IS a Plant with Flowers and Fruit like those of Plantain, from which it differs in its Leaves, they being deeply infected; whereas the Leaves of Plantain are either without Incisures, or but slightly indented.

Its Species are,

Garden Bucks-horn Plantain, *Coronopus hortensis. C. B. Pin. 190. Coronopus sive Cornucervinum vulgò, spicâ Plantaginis: Coronopus*, commonly called Bucks-horn, with a

U

Spike

Spike like that of Plantain. *J. B.* 3. 509. *Herba stella five Cornucervinum. Dod. Pempt.* 109.

The Root for the most part is small and slender, but when it has been of long Growth, it is sometimes found about the thickness of a Finger, of a white Colour, and an astringent Taste; immediately from the Root spring many Leaves, long, narrow, nervous, or full of Veins or Ribs, and cut in upon the Sides into deep Jags, like the Knags of a Bucks-horn, from whence it took the Name; they lie round the Root in such a Disposition as to resemble a Star, upon which account it was called *Herba Stella*, they are of a Taste somewhat astringent; from among these rise several slender, round, and somewhat stiff hairy Stalks, like to those of Plantain, about a Span or a Cubit in height, sustaining each a small long spiky Head, like to that of common Plantain, bearing such-like Flowers and Seed: It is cultivated in Gardens, nor does it otherwise differ from that which grows wild, than in magnitude, and some other accidents owing to culture.

That which grows wild spreads many Leaves upon the Ground in a circular Order, like the *Coronopus vulgaris*, but is more deeply jagged and divided, it has a stiff hairy covering, and appears almost hoary: The Centre, where the Leaves like so many Rays unite, is covered with a large Quantity of a soft Lanugo or Wool: The Stalks, which are many, and about a Hand-breadth or a Span in length, stiff, rough, and hairy, bear a spiked Head, like to that of the *Coronopus vulgaris*: The Root is single, fibrous, somewhat thick, moderately long, and full of a lignous Pith; it is called by *Caspar Bauhin*, *Coronopus sylvestris hirsutior*; but Mr. Ray says that it does not appear to him to be the *Coronopus Prochyta Insulae* of *Columna*: It grows in plenty in England, in uncultivated and dry Grounds, especially in sandy and gravelly Soils.

Broad-leaved and hairy Bucks-horn-Plantain of *Marsilles*, *Coronopus Massiliensis*, *hirsutior*, *latisilius*: *Coronopus Prochyta*, Bucks-horn-Plantain of the Island *Procyda Columna. Part. I.* 258.

Bucks-horn-Plantain of *Naples*, with thin and slender Leaves, *Coronopus Neapolitanus, tenuifolius. Col. Part. I.* 258. *Coronopus laciniatus ejusdem*, jagged Bucks-horn-Plantain of the same Author. *Part. 2.* 71.

The smallest, hairy Bucks horn-Plantain, growing upon the Sea-Coasts, *Coronopus maritimus, minimus, hirsutus. C. B. Pin.* 191. *Coronopus maritimus, minimus ejusdem. Prodr.* 98.

Rose Bucks-horn Plantain growing upon the Sea-Coasts, *Coronopus maritimus, roseus. Boccone. Rarior. Plant.* 69.

The Name is a Compound of the two Greek words *κορυνη* which signifies a Crow, and *πῆς* a Foot, in *English* Crows-Foot.

It agrees in virtues with the Plantain.

TABLE XXXIX. Fig. 2.

GENUS V.

Psyllium, Flea-wort,

THIS Plant differs from Plantain, and the Bucks horn-Plantain, in this, that it rises up with Stalks leafy and branched, as *Casalpin* informs us; whereas the Flowers and Fruit of Plantain and Bucks-horn-Plantain stand upon single and naked Stalks.

Its Species are;

Indian Flea-wort, or the Flea-wort of Dioscorides, with notched Leaves, *Psyllium Dioscoridis vel Indicum, foliis crenatis. C. B. Pin.* 191. *Psyllium Indicum, foliis crenatis. J. B.* 3. 514. *Psyllium laciniatis foliis. Boccone. Rar. Plant.* 8.

This *Indian Flea-wort* has, according to *Parkinson*, a woody, reddish, rough Stalk, next to the Ground, about a Foot high, spreading into diverse Branches: The Leaves that stand at the Joints thereof are somewhat long, narrow-pointed at the End, and notched, or rather somewhat torn on the Edges, and hairy; the Tops of the Branches are more stored with Heads than the *Psyllium vulgare*, but of the same Bigness and Form, the Flowers and Seed are likewise the same: This is taken by

C. Bauhin to be the true *Psyllium* of *Dioscorides*, and is by him called *Indicum*, because the Seed came to him under that Name.

Great, upright, Flea-wort, *Psyllium majus, erectum*. *C. B. Pin.* 191. *J. B.* 3. 513. *Psyllium* *Dod. Pempt.* 115. Common Flea-wort.

It has a single, white, and fibrous Root, sending up a hairy Stalk, a Foot long, and full of Branches widely spreading, out of whose knots the Leaves come forth by Pairs, being sharp-pointed, narrow, hairy, nervous, bitter, two or three Inches long, and about the twelfth Part of an Inch broad: From the Bosoms of the Leaves there shoot several small Footstalks, sustaining spiked Heads, in which the Flowers grow very thick, being single-leaved, white, and fistulous or hollow, like a Pipe, divided or cut into four Parts, and adorned with long Threads tipt with their Chives, and a Pointal which changes into a Coffin or Seed-Vessel, of a long and round Shape, membranous, and consisting of two Parts, lying the one upon the other like a Box, in which are contained two Seeds that are flat, shining, and resemble the Shape of a Flea: The Seed-Vessel, when ripe, opens by an horizontal Section: The Taste of the Plant is bitter, it has no manifest Smell: It grows in plenty about *Montpelier*.

The greater, flat Flea-wort, *Psyllium majus, supinum*. *C. B. Pin.* 191. *J. B.* 3. 513. *Psyllium* *Plinianum forte, radice perenni, supinum*, *Pliny's* Flea-wort, having a perennial Root, and its Branches spread flat upon the Ground, according to *Lobel. Icon.* 437.

This Flea-wort, according to *Parkinson*, differs not from the former in the manner of growing, but in this, that the Stalk and Branches being somewhat greater, do a little more bow down towards the Ground: The Leaves are somewhat larger, the Heads somewhat lesser, the Seed alike; and the Root and Leaves abide all the Winter, and perish not as the former.

Small Flea-wort, *Psyllium minus*, *C. B. Prodr.* 99. it is thus described by *Parkinson*.

This small Flea-wort has small round reddish Branches, leaning down to the Ground, not above a Hand-breadth high, spreading into more Branches, as having three or four at a Joint, and two Leaves standing at each, one against the other, but very short and narrow: The small Heads that stand at the Tops of the Stalks, have two small long Leaves, sometimes more, set under each of them, one longer than another, and in Time bowing downwards, and somewhat hard: The Blossoms or Flowers are white, and the Seed is shining; the Root is small and white, with diverse Fibres thereat: *Bauhin* says he had this Species from the Garden of *Bembus* at *Padua*, under the Name of *Gotne rubrum*.

It is called *Psyllium*, from the Greek word *Ψύλλα*, which signifies a Flea, either because it is esteemed to drive away that sort of Vermin, or rather from the Resemblance which its Seeds bear to that insect.

The *Psyllium majus erectum*. *C. B. J. B.* which is the common Flea-wort, is the Species commonly used: The Salt of this Plant is like to the Salt of Coral; but it is mixed with a small Quantity of Salt-Armoniac, much Sulphur, and many terrestrial Particles; by a chymical Analysis it yields a large Quantity of urinous Spirit, and many acid Liquors: It abounds with an acid Phlegm and glutinous Juice, which is wholly destroyed by the Force of Fire: The Seed of Flea-wort is used in the Electuary, which is called *Electuarium de Psyllio*, but the purgative Quality is to be attributed to the Scammony and other ingredient Catharticks: The Mucilage of Flea-wort Seeds extracted with Rose-water, eases and mitigates pain, and is very proper to remove an Inflammation of the Eyes: It is usually prescribed by way of Glyster in a Dysentery, and Inflammation of the Reins: This Mucilage too is no less available for the Cure of Burns and scalds.

S E C T. III.

Of Herbs with a Flower of one single Leaf, whose Flower-Cup for the most Part changes into the Fruit.

T A B L E XL. Fig. 1.

G E N U S I.

Jalap,

IS a Plant that bears a Flower of one single Leaf A, shaped like a Funnel, for the most part slightly infected, and furnished with a double Flower-Cup, the one whereof C serves to enwrap it, upon the other B it stands and rests; this last afterwards changes into a roundish Fruit D, which encloses a Seed E of the same Form and Shape F.

Its Species are,

Jalap with a purple Flower, *Jalappa flore purpureo*: This is the *Solanum Mexicanum*, flore magno, purpureo seu Kermesino. C. B. Nightshade of Mexico, with a large purple or scarlet Flower, of Caspar Bauhin. Pin. 168. The *Jasminum Mexicanum*, frve flos Mexicanus multis J. B. Mexican *Jasmin*, or the Mexican Flower of many Authors, according to John Bauhin 2. 814. and the *Viola Peruviana*, or the Violet of Peru, according to Tabernemontanus. Icon. 315. The Beauty of the Night with a purple Flower.

The Root is thick, like that of the Mandrake, often exceeding a Cubit in length, furnished with some few Fibres, and if cut transversly, it shows Rings or Circles, like those found in the *Meboacan* Root, black without, white within, at first of an insipid Taste, which afterwards turns somewhat sharp and caustic: It sends up a Stalk a Cubit, sometimes two Cubits and a half high, about the thickness of a Thumb, full

of Juice, firm, and of a yellowish green Colour, knotted, or full of Joints, like the female *Balsamina*; which Stalk divides it self into several Branches, likewise knotted: The Branches are deck'd with Leaves shooting out in Pairs from the Joints, like unto the Leaves of wild Peas-cods, green, fleshy, and full of Juice, large or broad near to the Footstalk, and ending in a sharp Point at the Extremity; if rubbed, they yield an unpleasant Smell like the wild Peas-cods, and are also very unfavoury to the Taste, leaving at last the Sharpness or Acrimony of the Tobacco-Leaves: The Extremitiës of the little Branches are garnished with long, single, hollow Flowers, folded into five Parts before they are opened; but when fully blown, somewhat resemble the Tobacco-Flowers, however, they don't terminate in sharp Angles like them, but blunt and round Corners like the Flowers of Bindweed; they are larger too than the Flowers of Tobacco, shining with a beautiful purple or crimson Colour; sometimes they are found of a brick Colour, sometimes yellow, or pale, sometimes white, or only whitish, sometimes of an old or worn out red or yellowish Colour, most commonly they are variously strip'd, spotted, or chequered with two Colours, equally dividing the Flower: Their Smell is agreeable enough, somewhat like to that of the white Asphodel: The Ground or Field of the Flower is either red, pale, yellow, or white; it contains, within, six oblong *Stamina* or Threads, encompassing a longer Pointal; they are very short-lived and fading, for at night they open, and continue fully blown till eight of the Clock next Morning, when, especially if the Weather is hot, they contract and shut up like the Bindweed Flower; but if the Air be more

Tab. 40.

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Fig. 1.

Jalap.



Fig. 2. Rubeola. Petty-Madder.

pag. 152.

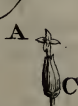


Fig. 3. Trachelium. Throat-wort.

pag.





temperate and mild, they remain open the whole Day, and only contract and close at night, and so perish and decay, the Space of one Day being the Period of their Duration, like the true *Ephemerum* or *Hemerocallis*; yet as they first wither and drop, fresh ones still succeed, and daily open with an entertaining Variety: If you gather the Flowers from the Branches every Day, and lay them up carefully in several distinct Papers, (for they retain their Colours for a long Time) and afterwards compare them together, you will find them to consist of the same Colours, but diversified in the Mixture and Situation: This Plant continues long green, and bears a luxuriant successional Increase of its admirable Flowers, with pleasing variety, from July till October, unless the Frosts intervene: The Flower-Cups which embrace the Flower are cut into five sharp-pointed Divisions, green, and as it were membranous, wherein is contained one Seed not covered nor enclosed within any Skin or Husk, having a blunt Point, upon which the Flower rests and grows; but at that extremity next to the Cup by which it adheres to the Stalk, it is adorned with a small pentagonal Crown; it is about the bigness of a myrtle Berry, green at first, but brownish when ripe, and set as it were with several little Knobs, falling at the most gentle Touch, and contains a white Kernel, which being bruised, crumbles and dissolves into a bright snowy white Powder, like Starch.

The Root is lasting, but in our Climates, if it is left in the Ground, the Winter's Cold and Moisture kills it: It may be kept and preserved, either in Sand, or wrapped up in coarse Paper, and laid up in a dry Place not too hot: Gerard says he found out a Way by Practice to preserve the Roots, which never failed; at the first Frosts, says he, I dig up the Roots, and put up, or rather hide the Roots in a Butter-Ferkin, or such like Vessel filled with the Sand of a River, the which I suffer still to stand in some corner of a House, where it never receives any moisture, until April, or the middle of March, if the Weather be warm, at which Time I take it from the Sand and plant it in the Garden, where it flowers

exceeding well, and increases by Roots, which that does not which was either sown of Seed the same Year, nor those Plants that were preserved after the other manner in Pots.

Those Plants that rise from Seed upon which red Flowers did grow, bear no other but red Flowers: The same happens in the Seed that succeeds to Flowers of other Colours, for the Plants that spring from thence don't bear Flowers of various Colours; so that if you desire chequered or variegated Flowers, you must choose such Seeds as succeeded to Flowers of various Colours.

The Seed of this exotic Plant was brought first into Spain from Peru, from whence it took the Name of *Mirabilis Peruviana*, and was afterwards dispersed over all the Parts of Europe.

Jalap with a yellow Flower, *Jalappa flore flavo: Solanum Mexicanum flore magno, flavo*, Nightshade of Mexico with a large yellow Flower. C. B. Pin. 168. The Beauty of the Night with a yellow Flower.

Jalap with a Flower of an old worn-out red Colour, *Jalappa flore obsoletè rubente: Solanum Mexicanum, flore magno obsoletè rubente*, Mexican Nightshade, with a great Flower of a worn-out red Colour. C. B. Pin. 168.

Jalap with a whitish Flower, *Jalappa flore exalbido: Solanum Mexicanum, flore magno exalbido*, Nightshade of Mexico with a large whitish Flower. C. B. Pin. 168. The Beauty of the Night with a whitish Flower.

Jalap with a Flower of yellow and purple Colours intermixed, *Jalappa flore ex luteo & purpureo mixto: Solanum Mexicanum, flore magno ex purpureo & luteo mixto*, Nightshade of Mexico, with a large Flower of a purple and yellow Colour intermixed. C. B. Pin. 168. The Beauty of the Night with a Flower of a yellow and purple Colour intermixed.

Jalap with a Flower of red, yellow, and white Colours intermixed, *Jalappa flore ex rubro, luteo, & albo mixto: Solanum Mexicanum, flore magno ex rubro, luteo, & albo mixto*, Nightshade of Mexico, with a Flower consisting of red, white, and yellow Colours intermixed. C. B. Pin. 168. The Beauty.

Beauty of the Night, with a Flower of red, yellow, and white Colours intermixed.

Jalap with a Flower, half white, and half of a purple Colour, *Falappa flore ex albo & purpureo dimidiatim commixtis notato: Solanum Mexicanum flore magno ex albo & purpureo dimidiatim commixtis notato*, Nightshade of Mexico, with a Flower half white, and half of a purple Colour. C. B. Pin. 168. The Beauty of the Night, with a Flower half of a white, and half of a purple Colour.

Jalap with a white Flower, marked with purple Spots, and streaked with Lines of the same Colour, *Falappa flore albo, purpureis maculis, inequalibus vel latis vel minutis, tam punctatim quam virgatim asperso: Solanum Mexicanum, flore magno, inequalibus vel latis vel minutis maculis purpureis, tam punctatim quam virgatim album colorem intercurrentibus asperso*. C. B. Pin. 168.

Jalap with a Flower streaked with yellow Rays, *Falappa flore radiis flavis distincto: Solanum Mexiocanum, flore magno, radiis flavis per longitudinem distincto*. C. B. Pin. 168.

Jalap with a small Flower, *Falappa flore parvo: Solanum Mexiocanum flore parvo*. C. B. Pin. 168. The Beauty of the Night with a small Flower.

Jalap of the Shops with a wrinkled Fruit, *Falappa officinarum fructu rugoso*.

Jacobus Antonius Cortusius, in a Letter he wrote from *Padua* to *Clusius*, affirms that two Drachms of the Root of the *Admirabilis Peruviana flore vario*; or the Marvel of the World, with a Flower garnished with various Colours, taken inwardly, copiously purge and evacuate watery and ferous Humours: *Plumier* and *Lignon*, upon their return from *America*, have frequently affirmed to me, that the Jalap, whose Roots are used in the Shops, differs nothing from that Species which I called *Falappa fructu rugoso*, or Jalap with a wrinkled Fruit.

There are two different Opinions among Authors concerning Jalap; some take it to be the Root of a certain *American Bindweed*; others suppose to be the Root of an *American Nightshade*: But if we may rely upon the Discoveries of *Father Plumier* imparted to our Author, it remains no longer a doubt that it is the Root of a Species of

the *Mirabilis Peruviana*, the *Belle de Nuit*, or Beauty of the Night, as *Plumier* has named it, or of the *Solanum Mexicanum*, &c. according to *Casp. Bauhin*.

The Jalap sold in the Shops is brought from the West Indies, but great quantities of it come from the *Maderas*, where it grows commonly without culture. Chuse such Jalap as is in the thickest Pieces, streaked with resinous Veins, hard to be broke with the Hands, but easy to pound in the Mortar, of a grey Colour, the Taste a little acrid: There are two sorts of Jalap, viz. a whitish, and a blackish or dark Brown, which being broke, shines a little; this blackish Sort is much to be preferred, being resinous and heavier than the other, the whitish has little Resin in it, and therefore not so good, and still less so, if it is worm-eaten: It was unknown to the Ancients, it not being long since we had it from the West Indies.

The Roots of Jalap abound with a pungent Salt, joined with Sulphur and Earth, as appears by the chymical Resolution of them, whereby a large Quantity of Oil and sharp Liquors are extracted from them: Besides, the Infusion of Jalap-Roots in fair Water is apt to render the blue Paper of a brisker and more lively Colour.

Monsieur Bolduc, in his Analysis of Jalap, informs us, that for the greater Certainty of his Experiences, and that he might the better Judge of the Proportions of the constituent Principles of this mixed Body, as it is more or less resinous, he reduced a sufficient Quantity of it into Powder, to work upon it by Extraction: Having powdered twenty-four Ounces of the Roots, he divided the whole into two equal Parts; from the one he drew the Tinctures according to art, with such a Quantity of the Spirit of Wine as was necessary to strip the Jalap of all its resinous Part; these twelve Ounces yielded two Ounces of Resin well dried.

From the residue or Dregs, which weighed nine Ounces and six Drachms, by Water simply be obtained four Ounces of a solid and pure Extract, having carefully separated the gross and terrestrial Parts of the different Decoctions which he made of the Dregs; these earthy Parts well dried in form

form of an Extract, weighed seven Drachms; so that the twelve Ounces of Jalap produced seven Ounces of different Extracts; what remained after these Operations weighed only four Ounces and two Drachms, a residuous Mass entirely useless.

The other twelve Ounces he extracted with fair Water, by several Infusions and Decoctions, after the usual Manner; that is to say, that by a Digestion of several Days over a slow Heat, these Decoctions becoming clear, and the thick and mucilaginous Parts which were before blended with the others, being separated by Evaporation, he obtained a pretty solid and well-conditioned Extract, which weighed six Ounces and a half: The gross and mucilaginous Parts which he separated from the Decoctions by Filtration, being well dried into the Form of an Extract, weighed an Ounce and a half, the residue or Dregs weighed only four Ounces and a half.

At each Decoction the Water separated and detached some of the resinous Parts, which were found coagulated and adherent to the Sides and Bottom of the Vessel, like to Glue, separated however from the mucilaginous Parts; of this Resin he obtained three Drachms, which differed nothing from the ordinary Resin.

The residue of the twelve Ounces which he extracted with Water, as has been said, weighed only four Ounces and a half; he tried by the Spirit of Wine to extract from it what resinous Parts might remain, and he obtained five Drachms, which with the three that were found swimming upon the Decoctions, compose one Ounce: So that the six Ounces and a half of Extract obtained by the Means of Water, contain one Ounce of Resin, seeing the twelve Ounces of Jalap of the same Quality, yielded him two Ounces of Resin by the means of the Spirit of Wine.

Of all these Preparations he observed, that the Extract of Jalap which he first drew with Water, and which certainly contained one Ounce of Resin, taken to the Quantity of twenty-four or thirty-six Grains purged gently, but operated most by Urine, as he says he experienced in several hydroptic Patients.

The Dregs of that Extract which still retained some resinous Parts, purged moderately, but with gripings.

The Dregs or residue stripped of all its Principles, produced no effect.

All these Resins differed nothing in their Effects from one another.

He adds, that the Extract which he prepared from the Dregs of that part from which he had extracted the Resin by the Spirit of Wine, and which he says probably contained the saline Parts only together with the Earthy, was little, or rather not at all purgative, but that it operated powerfully by Urine.

From all these Experiences he concludes, that the Extracts to purge usefully and without Irritation, should contain both the resinous and saline Parts; these first create a great deal of Disorder in purging, the others work mostly by Urine; but when united, as Nature has produced them, they produce laudable Effects: So that all the various Preparations of this Medicine, instead of bettering it, serve only to destroy its Powers: It needs no Corrective to bridle its too great Activity, nor no *stimulus* or Spur to quicken its Operation, as most of our ordinary Catharticks do: The best Preparation of it consists in the right Choice: Those who have not been well acquainted with it, would discredit it, by affirming, that it usually leaves the Belly dry, so that it continues for some Days without performing its Office, not observing that this is common to most Purgatives, especially such as are hydragogue.

Jalap is an excellent Cathartick, and powerfully evacuates serous and watery Humours, and is therefore usefully employed in Dropries, Gout, Rheumatism, and for Obstructions: The usual Dose is from $\mathfrak{ss}$ to $\mathfrak{z}\mathfrak{i}$, but it will operate sufficiently from $\mathfrak{ss}$ to $\mathfrak{ss}\mathfrak{i}$.

The Resin or Magistery of Jalap is made with Spirit of Wine, and precipitated with Water, from whence proceeds a liquid Resin, white and glewy, almost like Turpentine, which after it is dried in the Shade, looks like common Resin, it has a fine Smell like Scammony, and if rightly prepared, when thoroughly dry, is transparent and so brittle, that it will crumble be-

twixt the Fingers: Dose, gr. V or VI. This is either taken by it self, or added as a *Stimulus* to other Purgatives to quicken their Operation.

Jalap is an Ingredient in the hydragogue Eleduary of *Sylvius*, in the catholick and cholagogue Extract of *Rolsincius*, in the arthritick Pills of *Cheffer*; in the cathartick Pills, and hydragogue Syrup of *Charras*.

TABLE XL. Fig. 2.

GENUS II.

Rubeola, Petty-Madder,

IS a Plant with Flowers of one single Leaf AB, shaped like a Funnel, either divided into four Segments, or slightly infected; growing upon a Flower-Cup DE, which is sometimes double DC, sometimes single E: The Flower-Cup upon which the Flower rested, is afterwards changed into a Fruit composed of two Seeds FG.

Its Species are,

Petty-Madder with a broader Leaf, *Rubeola latiori folio*: This is the *Rubia latifolia, spicata*. C. B. Broad-leaved, spiked Madder of *Caspar Bauhin*, Pin. 334. and the *Rubia spicata* of *Ferrante Imperato* 666, and of *J. Bauhin*, 3. 727.

This small Madder rises with several square or quadrangular and rough slender Stalks, full of Joints, from whence shoot many little Branches: These Joints too are encompassed with four, five, sometimes six short and somewhat rough Leaves, of an ash Colour: The Tops of the Stalks and little Branches terminate in long spiked Heads, half a Hand-breadth, sometimes a whole Hand-breadth and more in length, green, and in appearance quadrangular, because the Flowers which are very small, scarce conspicuous, and of a whitish green Colour, rise alternately in a contrary Situation, out of the Bosoms of the Husks, closely set together in a long Series upon the Stalk: The Seed is small, longish, and black: It is called by *Parkinson*, *Rubia spi-*

cata Cretica, latiori folio, and by *Gerard*, *Rubia spicata Cretica*.

Petty-Madder with a narrower Leaf, *Rubeola angustiore folio*: This is the *Rubia angustifolia spicata*, or the narrow-leaved spiked Madder of *Caspar Bauhin*, Pin. 334. *Prodrom.* 145.

It differs from the preceding in the narrowness of its Leaves and Spikes, nor does it rise to such a Height: It grows in several places near to *Montpelier*. *Magnol* found the former too not far from *Montpelier*, upon the descent of the Mountain *Capouladou* in great plenty, with a flowered Spike in the Months of *May* and *June*.

Petty-Madder lying flat upon the Ground, bearing a very long spiked Head, *Rubeola supina, spica longissima*: This is the *Rubia spicata repens*. *Bor. Monsp.* or the creeping spiked Madder of *Magnol*, in his *Botanicum Monspeliense*.

This Plant differs from the others, in that it lies flat or creeps upon the Ground, whereas they grow upright, its spiked Heads too are larger, and longer: *Mr. Ray* says, that if it really creeps, it may be surely determined a different Species, and not a Variety only of the others.

Common, smooth, four-leaved Petty-Madder, with purplish Flowers, *Rubeola vulgaris, quadrifolia, laevis, floribus purpureiscentibus*: This is the *Rubia Cynanchica* or Squinancy-wort of *Caspar Bauhin*, Pin. 333. and of *John Bauhin*, 3. 723. and the *Galium tetraphyllum, montanum, cruciatum* of *Columna*, Part. 1. 297.

The Root is thick, lignous, black, penetrating deep into the Earth, garnished with numerous and very slender little Fibres, and divided into several Heads: It sends up many slender Stalks a Hand-breadth and a half in Length, a Span or longer; angular, four-cornered, according to *Columna*, smooth; when they are much grown they are two Foot in length, and lie flat upon the Ground: The Leaves shoot out four in Number from the frequent Joints near to the Head of the Root; they are very short and broad, so that the length is scarce the third Part of the Breadth; about the middle of the Stalk the Joints are less frequent, the Leaves narrower, longer, sharper-pointed, and four in Number, but at the Top

of the Stalk they stand but two together, situated at greater Intervals: The Flowers are of a pleasant red Colour, and of an agreeable Smell, sometimes white, like the *Jasmin*, which they resemble much, both in Form and Colour, but about the bigness of the *Phu* of *Dioscorides*; they stand at the Tops of the Stalks and little Branches into which the Stalk divides it self, where they form a sort of Umbels or Tufis, as is seen in the *Valerian*: The Seeds are wrinkled or rough, oblong and crooked, twice so big as those of the *Galium vulgare*, and of a yellowish Colour when dried; it grows plentifully upon barren chalky Hills exposed to the Sun, as upon *Gogmagog Hills*, *Newmarket Heath*, *Sussex Downs*, &c.

Parkinson gives us this Plant twice, first, under the Title of *Asperula repens Gesneri*, five *Saxifraga altera Casalpini*, Break-stone Wood-root; secondly, under the Name of *Cruciata minor montana*, small Mountain Cross-wort; and perhaps a third Time under that of *Rubia minima saxatilis*, or the smallest Rock-Madder.

Common, smooth, four-leaved Petty-Madder with white Flowers, *Rubeola vulgaris, quadrifolia, levis, floribus albis*: *Rubia Cynanchica, flore albo*, Squinnancy-wort, with a white Flower. *Bot. Monsp.*

Petty-Madder of *Portugal*, rough, and bearing purplish Flowers, *Rubeola Lusitanica, aspera, floribus purpurascens*.

Petty-Madder growing upon the Sea-Coasts, *Rubeola maritima*: This is the *Rubia maritima* of *Caspar Bauhin*, *Pin.* 334. The *Rubia marina Narbonensis* of *John Bauhin*, 3. 721. and the *Rubia marina* of *Dodonæus*. *Pempt.* 357. Sea-Madder.

The Stalks of this Plant are quadrangular, commonly a Hand-breadth in length, sometimes a Foot, full of Joints, hard and lignous, and of a whitish Colour, sometimes found single and undivided, sometimes branched, having sometimes shorter, sometimes longer Intervals between their Knots or Joints: At each Joint stand four Leaves, somewhat broadish at that part where they join the Stalk, sharp-pointed towards the Extremitie, somewhat stiff, whitish, and disposed in the Form of a Star: The Tops of the Stalks and little

Branches which terminate in Spikes, are adorned with little pale-coloured Flowers expanded into four Segments, and as it were radiated: The Seed contained in little Husks is small, oblong, and of a dark brown Colour: The Root is thick, somewhat long, lignous, of a deep red without, and of a brownish red within, and single: It grows upon the Sea-Coasts in *Provence*, and near to *Montpelier*, &c.

Rubeola Cretica, saxatilis, fruticosa, Gallii folio, flore purpureo-violaceo, Petty-Madder of *Candy*, growing upon the Rocks and shrubby, with a Leaf like that of the Lady's Bedstraw, and a Flower of a purple-violet Colour.

Rubeola Cretica, saxatilis, frutescens, flore flavescente, Candy Petty-Madder, growing upon the Rocks, and shrubby, with a yellowish Flower.

Rubeola Cretica, incana, floribus purpurascens, hoary Petty-Madder of *Candy*, with purplish Flowers.

Rubeola Cretica, fetidissima, frutescens, myrtifolia, flore magno, suave-rubente, Candy Petty-Madder of a most stinking Smell, and shrubby, with Leaves like those of the Myrtle, and a large Flower of an agreeable red Colour.

Rubeola orientalis, fetida, fruticosa, serpyllifolia, flore parvo suave rubente, oriental Petty-Madder, stinking and shrubby, with Leaves like those of the Mother of Thyme, and a small Flower of a pleasant red Colour.

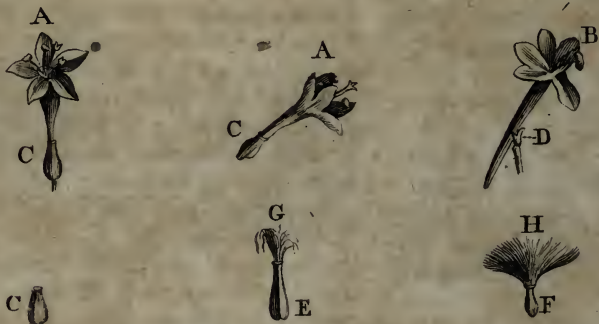
Rubeola orientalis, minima, flore purpurascens, the smallest oriental Petty-Madder, with a purplish Flower.

Rubeola orientalis, foliis Gallii, flore multiplici ex viridi flavescente, oriental Petty-Madder, with Leaves like those of the Lady's Bedstraw, and a double Flower, from a green inclining to a yellowish Colour.

Rubeola is a Diminutive from *Rubia*, as if we should say in *English*, a small Madder, so called from the Form of its Leaf: It differs from the Lady's Bedstraw in the Shape of its Flower, which resembles a Funnel.

I find none of the small Madders of any use in Physick, except the *Cynanchica* or Squinnancy-wort, which is esteemed of Efficacy

Fig. 1. Valeriana. Valerian.



pag.

Valerianella. Lambs Lettuce or Corn-Sallet.

Fig. 2.



ed by such like Seed-Vessels and brown Seed in them, as in the smaller Throat-wort: It grows upon the Rocks and Mountains of *Brescia*, about the Mouths of Caves, between the hardest Rocks, so that it is with the greatest Difficulty rooted out, nor did *Gregory de Reggio* ever find it any where else, but in cavernous Places, where no other Plants grow, and where no moisture can penetrate.

Rock Throat-wort, bearing Flowers gathered together into little Heads, *Trachelium petraeum, floribus in capitulum congestis*: This is the *Rapunculus Petraeus*, Rock Rampions of *Prosper Alpinus*. *Exot. 343.*

The Root is long, white, fleshy, and about the thickness of a Finger, very like to that of the common Rampions, of a sweetish and sharp Taste, often used in Salads: From the Root it sends up several Leaves standing upon long slender Footstalks, like to the fleshy Ivy-Leaves, but smaller, longer, more sharp-pointed, slenderer, from a Green inclining to a blackish Colour: Out of the Middle of these Leaves rise three slender, strait Twigs or Stalks, long, round, about a Span in length, adorned with little, long, slender Leaves, disposed alternately upon the Stalks, supported by their peculiar little Footstalks: At the Tops of the little Stalks there swells out a little small, round, sometimes oblong Head, composed of many little blue Flowers heaped together, each whereof is succeeded by small Vessels divided into three Cells, containing minute, shining, brownish Seeds.

The lesser *African Throat-wort*, with violet-coloured Flowers, spread up and down the Stalk, *Trachelium minus Africanum, floribus violaceis per caulem sparsis*: This is the *Campanula minor, Africana, erini facie, flore violaceo, cauliculis erectis*, of *Herman* in his Catalogue. *H. L. Bar.*

The Root is small, of a pale Colour, and sends up strait Stalks about a Span in length, adorned with little long narrow Leaves, like to those of the *Erinus* of *Columna*, somewhat thick, and of a pleasant shining green Colour, sinuated, and gently notched round the Edges: Out of the Bosoms of the Leaves the Flowers shoot, standing on a small hairy Flower-Cup,

which is divided into five Parts, supported by slender Footstalks: The Flowers are of a purple-violet Colour, cut into five Segments or deep Notches; they are succeeded by a small, oblong, three-cornered Fruit, partitioned into three Cells, containing minute, rusty-coloured Seeds: The whole Plant abounds with a thin milky Juice: It was first found in the Pasturage-Grounds about the *Cape of Good Hope*.

American Throat-wort, with a Sow-thistle-Leaf, and a very long white Flower, *Trachelium Americanum, sonchi-folio, flore albo longissimo.* *Plumier.*

It derives its Name of *Trachelium*, from the *Trachea arteria*, or Wind-pipe: And the Botanists have called a certain Species of the *Campanula* or Bell-flower, which is esteemed a useful Remedy in the Diseases of that part, by this Name.

TABLE XLI. Fig. 1.

GENUS IV.

Valeriana, Valerian,

IS a Plant with a Flower of one single Leaf A B, shaped like a Funnel, and cut into several Segments, standing in a Flower-Cup C D, which afterwards changes into a Seed commonly of an oblong Shape, almost flat E F, and winged with a soft Down or Cotton G H.

Its Species are,

The greatest Valerian of the *Pyrenean* Mountains, with a Leaf like to that of the strange Colts-Foot, *Valeriana maxima, Pyrenaica, cacalia folio.* *DD Fagon.* *Nard de Montagne de Lion.* *Lugd. Gall. 805.*

Its lower Leaves are undivided, almost round, notched like those of the strange Colts-Foot: Its Flowers are of an incarnate Colour, cut into five Segments, and furnished with a very short and almost imperceptible Spur.

Mr. Ray's Mountain Valerian with undivided Leaves, and a creeping Root, without Smell. *Valeriana Alpina, foliis integris, radice repente, inodora.* *Raii. Hist. 389.*

This Plant has long fibrous Roots, sending forth here and there some new shoots: The Leaves are like those of the water Valerian, from a round inclining to an oblong Figure, standing upon long Footstalks, not jagged, not even those that are set upon the Stalk, sometimes gently notched: The Stalk is about a Foot high, round, channelled, hollow, adorned commonly with two Pairs of Leaves; these last Leaves which grow upon the Stalk, have either none, or but very short Footstalks; they are indeed longer and sharper-pointed than those which grow near to the Root, yet not jagged, not so much as next to the Footstalks, but like to those of the red Valerian of *Dodoneus*: The Flowers stand collected at the Top of the Stalk as it were into a small Umbel, of a whitish Colour, very like to those of the wild Valerian, as are the Seeds: The Root, Mr. Ray says, so far as he could perceive, has no aromatick Taste, nor Smell: He found it growing in plenty upon the Mountain *Saleva*, near to *Geneva*: It Flowers in Summer; it is distinguished from the Celtic or Mountain Spikenard by its want of Smell, as likewise by the same Mark from the smallest Valerian with Spikenard Leaves.

Marsh Valerian, a little jagged, *Valeriana palustris*, *media*, *parum laciniata*: *Valeriana palustris*, *inodora*, *parum laciniata*, Marsh Valerian without Smell, with Leaves a little jagged. *C. B. Prodrom.* 86.

The first Mountain Valerian of *Caspar Bauhin*, *Valeriana Alpina*, *prima*. *C. B. Pin.* 164. *Prod.* 86. *Valeriana Alpina*. *J. B. 3. Part. 2.* 208.

The Root is long, of a sweet Smell and Taste, penetrating deeply within the Clefts of the Rocks: The Leaves next to Root are like to those of the greater Throatwort, oblong, from a broader Base, terminating in a sharp Point, somewhat toothed or indented round the Edges, of a dark green Colour, (according to *Caspar Bauhin*, of a pale Green) smooth, having some large Nerves, and hanging by long Footstalks: The Stalk is about two Foot high, round, hollow, of a reddish Colour, (and of a Taste somewhat sharp and resinous, according to *J. Bauhin*) it is garnished with three or four Pairs of Leaves, that

have either very short or no Footstalks, narrow, having two little Ears or Wings: The Flowers are small, of a purplish Colour, like those of the lesser wild Valerian, and stand many together collected into an Umbel: The Root and the other Parts of the Plant breath a pretty strong aromatic Smell, which strikes the Nose at a Distance, and are of an aromatic Taste, it grows upon the Mountains of *Austria* and *Stiria*.

Another Mountain Valerian of *Caspar Bauhin*, *Valeriana Alpina*, *altera*. *C. B. Pin.* 164. *Valeriana sylvestris*, *Alpina*, *1 latifolia*. *Clus. Hist.* LV.

Mountain Valerian, with a Fig-wort Leaf of *Caspar Bauhin*, *Valeriana Alpina*, *scrophularia folio*. *C. B. Pin.* 164. *Prodr.* 87. *Valeriana Alpina*, *folio scrophularia*. *J. B. 3. Part. 2.* 208.

The Root is of a blackish Colour, and somewhat knotty: It rises with one, sometimes more Stalks, two or three Foot in height, hollow, channelled, and green: The Leaves that rise immediately from the Root, six or seven in Number, stand upon long Footstalks, some whereof are of a roundish Shape, others of an oblong Figure, and some of them gently sinuated: But those which adorn the Stalk are few in Number, like to those of the Fig wort, three Inches long, an Inch or an Inch and a half broad, sharp-pointed, slightly notched, two always together: The Top of the Stalk divides into long slender Branches, which are garnished with Flowers of a pale red Colour, like to those of the wild Valerian: It was found upon the Mountain *Wasserfall*: Mr. Ray seems to be of Opinion that this last, and the other immediately preceding, are but one and the same Species.

Mountain Valerian with a roundish Leaf of *Caspar Bauhin*, *Valeriana montana*, *subrotundo folio*. *C. B. Pin.* 165. *Valeriana montana*. *Lugd.* 1127.

Mountain Valerian, like to the Celtic Spikenard, *Valeriana Alpina*, *nardo Celtica similis*. *C. B. Pin.* 165. *Valeriana minima*, *nardifolia*, the smallest Valerian with Spikenard Leaves of *J. B. 3. Part. 2.* 206. *Valeriana sylvestris*, *Alpina*, 2, *saxatilis*, the

the second wild, Mountain, Rock Valerian of *Clusius*. *Hist.* LVI.

This small Valerian has two or three Leaves that shoot immediately from the Root, like in form to those of the Mountain Daisy; from the middle whereof rises a Stalk one Foot high, adorned with few Leaves, narrower and smaller than the others, two together, placed oppositely: The Top of the Stalk divides into Branches, garnished with little white Flowers, like to those of the other wild Valerians: The Seed which follows is nothing different; its Root, after the Manner of the other Mountain Valerians, creeps in the Clefts of the Rocks, and is of an agreeable perfumed Smell: It grows among the Rocks near to the River *Myrtz*, which washes the Monastery of *Neuberg*.

Candy Valerian, with a Drop-wort Root, *Valeriana Cretica, filipendula radice*: This is the *Nardus Cretica, filipendula radice*, *Cretic* Spikenard, with a Root like to that of the Drop wort, of *Caspar Bauhin*, *Pin.* 165. and the *Nardo tuberoso di Candia*, or the tuberous Spikenard of *Candy*, according to *Pona*, in his Description of the Plants of *Montebaldo*; the *Italian* Edition. 125.

The first Leaves which it shoots forth are like to those of the white Henbane, but somewhat smaller; those that follow are deeply infected: The Flowers are like to those of the greater Valerian: The Root is single, and bulbous, breathing a Smell like Spikenard: So that both in form and Smell it much resembles the Mountain Spikenard: It grows in *Liguria*.

Mr. *Ray* questions whether this Species be not the same with the *Nardus Cretica* of *Honorius Bellus*, which he thus describes.

It is a Plant very like unto the Valerian in Smell, Stalk, Flower, and perhaps in the Seed too, which is longish, flat, nearly approaching in shape to the Seed of Flax, and charged with a fine Tuft of Down or Cotton: The first Leaves that spring up and lie round the Root upon the Ground, are green and round like the Leaves of the *Asarabacca*, sometimes larger, thick, and full of Juice; those that next shoot out are a little longer, somewhat infected round the Edges, the succeeding still more and more divided, so that the last which spring

before the Stalk rises, exactly resemble the Leaves of the greater Valerian: The Stalk is much like to that of the Valerian, hollow, two Foot or more high, adorned with Leaves growing in Pairs at certain Intervals, divided like those of the Valerian. The Flowers stand at the Top of the Stalk in Umbels, like to those of the Valerian, but somewhat larger, of a white Colour, and scented: The Root is knobby or tuberous; the chief and uppermost, which is about the thickness and length of the little Finger, from whence the Stalk rises, shoots out some other slender Roots, to which others are annexed, as in the Drop-wort, emitting a Smell like Spikenard: It continues green all the Winter, and in the beginning of the Spring shoots up its Stalk, which withers and decays in *April* or *May*; but the Roots out-live the Winter, and spring up with the first Rains in Autumn: It grows in moist rising Grounds, and is found sometimes among the Rocks.

Celtic Valerian, *Valeriana Celtica*: This is the *Nardus Celtica Dioscoridis*, Celtic Spikenard of *Dioscorides* according to *Caspar Bauhin*, *Pin.* 165. The *Nardus Celtica* of *J. B.* 3. *Part.* 2. 205. and the *Nardus Alpina*, Mountain Spikenard of *Clusius*. *Hist.* LVII.

This Species creeps along the upper Surface of the Ground, with a Root widely spreading and diffusing it self under the loose Leaves and Moss: Its small and long slender little Branches lying flat upon the Ground, covered with many short small dry Leaves, like Scales, send forth here and there in diverse Places, small brownish Fibres, the uppermost part whereof swells into two or three little Heads or Buttons, from whence spring up some long Leaves, narrow towards the Head, from thence gradually widening, somewhat thick, and full of Juice, at their first Rise green, afterwards about the end of Summer or the beginning of Autumn of a yellowish Colour, and bitterish Taste: From among these rises up a little Stalk, pretty firm, a Hand-breadth or a Span high, and knotted, as in the lesser Sorts of the Valerians, adorned with little Leaves growing in Pairs, the one placed in opposition to the other: The Top of the Stalk is deck'd with two or three little Flowers of a pale Colour, supported

ported by little Footstalks which shoot out of the Bosoms of the Leaves: They are succeeded by Seeds like to those of the wild Mountain Valerian, the rocky sort especially, or the smallest Valerian with Spikenard Leaves, but somewhat smaller: The whole Plant is aromatic, and smells like the Roots of the wild Valerian: It grows in great plenty, says *John Bauhin*, upon the *Alps*, which divide *Germany* from *Italy*. *Clusius* says it grows plentifully upon the Top of *Judenberg* of the *Siirian Alps*, among the *Mois*, and in rocky Places: There it Flowers in the Month of *August*, under the Snows almost; afterwards when they begin to melt, it shoots out its Leaves: It is gathered by the Inhabitants about the end of *August* or the beginning of *September*, when the Leaves begin to turn of a yellowish Colour; for then it breaths the strongest and most agreeable Odour, which it has not when the Leaves first appear, and while it is green.

Red Valerian, *Valeriana rubra*. C. B. Pin. 165. *Dodon. Pempt.* 351. *Valeriana rubra, latifolia*, broad-leaved red Valerian. *J. B.* 3. Part. 2. 211.

The Root is about the length of a Finger, thick, lignous, and tastes like that of the Valerian: The Stalks are two or three Foot high, round, smooth, of a greyish Green, and fistulous; from each Joint whereof two Leaves shoot placed in opposition, from a broad Base embracing the Stalk, terminating in a sharp Point, having some few Jags, fat, of a bluish Colour, of which those that are smaller resemble the Leaves of the *Papaver spumens* or Spatling Poppy; they are of a Taste somewhat sharp: The Flowers are of a pleasant red or purplish Colour, each divided into five Segments, ending in a long hollow Tube, fixed to a little green Footstalk, and shoot out a little Horn like a Spur; they stand in loose round Knots imitating a Fly-flap: The Seed is winged with a pappous Crest or Tuft, like that of the other Valerians: It grows in several Parts of *Italy*: It flowers in Summer; transplanted into Gardens it is found sometimes diversified in the Colour of its Flower, which is observed to be white.

Sea Valerian, or the lesser narrow-leaved

red Valerian, *Valeriana marina, angustifolia sive minor, rubra*. *Morison. Umb.*

Narrow-leaved red Valerian, *Valeriana rubra, angustifolia*. C. B. Pin. 165. *J. B.* 2. Part. 2. 211.

In its Flowers, which are of an agreeable red Colour, furnished with a Spur, and succeeded by a pappous Seed, it resembles the red broad-leaved Sort: Its Stalk too, which is about two Cubits high, is alike; but the Leaves that adorn it are much different, for they are about a Hand-breadth long, and narrow as those of Flax, and terminate in a sharp Point: It is very much branched, and shrubby: It grows upon *Montebaldo*, and in other Parts of *Italy*; and near to *Montpelier*.

Broad-leaved, or the greater white Sea Valerian, *Valeriana marina, latifolia sive major, alba*. *Mor. Umb.*

Narrow-leaved, or the lesser white Sea Valerian, *Valeriana marina, angustifolia sive minor, alba*. *Mor. Umb.*

Garden Valerian, the *Phu* of *Dioscorides*, with a Leaf like to that of the *Olusatrum* or Loveage, *Valeriana hortenensis, Phu folio Olusatri Dioscoridis*. C. B. Pin. 164. This is the *Valeriana major, odorata radice*, the greater Valerian with a perfumed Root of *J. B.* 3. Part. 2. 209. and the *Valeriana hortenensis* of *Dodonæus. Pempt.* 349. Great garden Valerian or Setwall.

It rises with Stalks two Cubits or a Yard high, round, smooth, hollow, adorned with Leaves shooting out in Pairs, the one in opposition to the other, at large Intervals, upon broad Footstalks; some whereof (those that first spring) are entire, others deeply cut and divided like those of the greater Centaury, and as it were winged; out of the Bosoms of the Leaves, towards the Tops of the Stalks, some little Branches shoot, upon which, as also upon the Extremities of the Stalks, stand small white Flowers, disposed into Umbels, from a long narrow Tube dilating their upper Part into five round Segments, and containing five Stamina or Threads with their white Chives, and a three-forked Pointal: The Flower-Cup of each Flower changes into flat oblong Seeds ending in a sharp Point, of a citron Colour, and crest-

ed with a fine Down, which serves to wing it along with every Wind: At each Division and Sub-division of the Umbels is placed upon each Side a small, narrow, oblong, sharp-pointed little Leaf: It has a Root running athwart and turning round like a Ring, an Inch thick, scaly or wrinkly, brown without, and white within, fibrous, of a sharp, bitter, and aromatick Taste: It is cultivated in Gardens, and is found sometimes wild upon some high Mountains in Woods.

It is called in Greek *φύ* and *ράδος ἀγρία*, because in Smell and Faculty like unto *Nardus*; by some *Theriaca*, because it is a chief Ingredient in Treacle; *Herba Benedicta*; by *Paracelsus Terdina*.

The greater wild Valerian, *Valeriana sylvestris*, major. C. B. Pin. 164. This is the *Valeriana sylvestris*, magna, aquatica, the great wild water Valerian of J. B. 3. Part. 2. 210. and the *Valeriana sylvestris*, the wild Valerian of *Dodoneus*. *Pempt.* 349.

The Root is composed of many white Fibres, of an aromatick Taste: The Stalks rise to the height of a Man, are strait, fistulous, having long Intervals between their Knots or Joints, channelled, somewhat hairy; the Leaves, which are like those of the garden Valerian, but more winged, each little Wing or Lobe being dented round the Edges, of a deeper Green, and somewhat hairy upon the Backside, embrace the Joints with their Base: The Flowers which stand in Umbels, are like to those of the garden or cultivated Valerian, each dilating from a long narrow Tube into five Segments imitating so many Leaves; they want Footstalks, and stand in the very Division or Separation of the Branches: The Flower-Cup of each changes into a Seed broad at the Bottom, sharp-pointed, and tufted with a fine *Lanugo* or Down: It is found in moist Places, near to Water, and often in Woods in several Parts of our Country.

Another great Valerian, with a shining Leaf, *Valeriana sylvestris*, major, altera, folio lucido. H. R. Par.

The greater marsh Valerian, *Valeriana palustris* major. C. B. Pin. 164. *Valeriana palustris*, major, profundè laciniata, the greater

marsh Valerian, deeply jagged. C. B. Prodr. 86.

The lesser marsh Valerian, *Valeriana palustris*, minor. C. B. Pin. 164. This is the *Valeriana minor*, pratensis, vel aquatica, the lesser Meadow or water Valerian, of J. B. 3. Part. 2. 211. and the *Valeriana minima* of *Dodoneus*. *Pempt.* 350.

It creeps with a slender Root, and where it touches the Earth, sending down some great white Fibres, it roots it self by the Means of its little capillary Fibrils, and is of a bitterish Taste: The Stalk is about a Span in height, angular, channelled, hollow, and divided by certain Joints or Knots; it sustains an Umbel or Tuft of Flowers, from a White inclining to a reddish Colour, as in the greater wild Valerian, but smaller, the Brims of each whereof are divided into five small reflected Jags, with a three-forked high Point or Top: The Umbel sometimes rises from the Bottoms of the Leaves of the little Stalks: Some of the Leaves are entire, roundish and small, standing upon long Footstalks; some, as those for the most Part which grow upon the Stalk, two together, are without Footstalks, jagged in their bottom Parts, and as it were winged, the uppermost or end Leaf is undivided and oblong, of a Taste somewhat bitter and clammy: The Seeds are the same that are in the other Sorts: It grows every where commonly in marshy Places, and near to Rivulets.

The lesser wild or water Valerian, with a small Flower, *Valeriana aquatica*, minor, flore minore Raii. Hist. 389.

This Species is somewhat larger and higher than the preceding: Its Stalk is greater and firmer; the Leaves larger and stand thicker together: It has for the most part three Pairs of winged Leaves upon the Stalk, whereas the other has but two: The Flowers stand collected into closer Clusters, in the other they are disposed into looser Umbels, and are five Times larger than in this, wherein this Species differs most remarkably from the former: It grows in the same Places with the other, and flowers at the same Time.

The lesser mountain Valerian, *Valeriana Alpina*, minor. C. B. Pin. 165. This is the *Nardus*.

Nardus montana, radice Olivari ejusdem, mountain Spikenard with an olive Root of the same Author. Pin. 165. The *Nardus montana*, radice oblongâ ejusdem, mountain Spikenard with an oblong Root of the same Author. Pin. 165. and the *Nardus montana longius radicata* of Camerarius. Epi. 16.

It has a tuberous or knobby Root, which every Year sends out new Shoots or Off-sets whereby it propagates it self luxuriantly, and is furnished at the Bottom and Head with many capillary Fibres, from whence rise up some Stems or Stalks loaded with Leaves of a dark green Colour above, and shining, not toothed round the Edges; those that shoot higher upon the Stalk are cut into jags, almost like to the Leaves of the greater Valerian, but smaller, and as the Stalks advance in growth the Leaves which adorn it are still more cut and divided, constantly disposed in an opposite Situation: The Top of the Stalk is thickly deck'd with Flowers, not unlike those of the wild Valerian, scented, but more faintly than the Root, which has a stronger Perfume, nearly resembling the smell of the Roots of the wild Valerian: It grows upon some Hills near to Naples, from whence Clusius had it sent him by Ferrante Imperato.

Valerian, with Leaves like to those of the Star-thistle, *Valeriana foliis Calcetræpæ*. C. B. Pin. 164. *Valeriana annua*, altera Clus. Hist. LIV.

This annual Valerian hath several long Leaves lying spread upon the Ground, of a green Colour, deeply cut in on the Edges, somewhat like the Leaves of the Star-thistle, among which rise up round hollow Stalks, two or three Foot high, adorned with two Leaves oppositely placed at every Joint, as in the other Valerians, but smaller, and more and more jagged than the lower: The Stalk divides into Branches towards the Top, upon which stand many Flowers of a pale red or flesh Colour, disposed in Tufts, divided at the Brims into five Parts or Segments; they are succeeded by a Seed like to that of the red Valerian of *Dodonæus*, but smaller: The Root is small, white, and woody, but dies every Year: It has a small weak Scent of Valerian.

Annual, broad-leaved, jagged Portugal Valerian, *Valeriana Lusitanica*, annua, latifolia, laciniata.

Imperato's tuberous Valerian, *Valeriana tuberosa Imperati*. 656. J. B. 3. 207.

It produces Leaves in form like to those of the smaller Valerian, but thicker; white Flowers like to those of the greater Valerian, and somewhat scented: The Roots are tuberous or knobby, and smell like Spikenard: It grows upon the Mountains of *Liguria*.

Oriental Valerian, with a Leaf like to that of the *Alliaria* or *Jack-by-the-Hedge*, and a white Flower, *Valeriana orientalis*, *Alliaria folio*, flore albo.

Oriental Valerian with a Leaf like to that of the *Sisymbrium* or Water-mint of *Matthiolum*, *Valeriana orientalis*, *sisymbrii Matthioli folio*.

The smallest oriental Valerian, with a Flower of a russet or brown Colour, *Valeriana orientalis, minima*, flore leucophæo.

Narrow-leaved oriental Valerian, with Flowers and Root like to those of the garden Valerian, *Valeriana orientalis, angustifolia*, floribus Gradice *Valeriana hortensis*.

This Plant borrowed its Name, as it is thought, from one *Valerius*, or rather from the Latin word *Valéo*, because of the great and excellent Powers it is possessed of.

The Valerians, at what Time they are neither in Flower nor Seed, are known and distinguished by their scented Root, and smooth Leaves growing still two together, oppositely placed at each Knot or Joint of the Stalks.

There are several Species of the Valerian, all of an excellent use in Physick.

Valeriana sylvestris major. C. B. *Valeriana sylvestris magna aquatica*. J. B. *Valeriana sylvestris* Dod. Great wild Valerian: The Leaves of this Plant are without smell; but they are of a Salt and bitter Taste, and redden sufficiently the blue Paper: The Roots give but a very small Tincture of red to the same Paper, they are bitter and styptic, of a penetrating aromatick Odour, which carries something disagreeable to the Sense: This Plant contains a volatile, oily, aromatic Salt, charged with part of the acid of Salt-Armoniac; whereas in the artificial vola-

volatile oily Salt, that acid is fixed by the Salt of Tartar; so that the wild Valerian is Anti-epileptick, Sudorifick, Hysterick, and proper to provoke the Courfes; it gives great Relief to asthmatick Persons, and such as are subject to what is commonly called Vapours: *Camerarius* commends it highly as an excellent Remedy in the Jaundice; and *Fabius Columna*, in an Epilepsy: This last Author affirms, that by the use of this Root he was himself cured of an Epilepsy, and that he has seen several others perfectly cured of the same terrible Distemper by it: He advises to take the Root out of the Earth before it has begun to shoot out its Stems or Stalks, to reduce it to a Powder, and take half a Spoonful of it in Wine, Water, or Milk, or in any other convenient Liquor: It may be given to Children, and to all Persons seized with convulsive Motions. (This is confirmed by *Panarola*: And *Sylvius* declares, that it is of greater Efficacy, and more to be depended upon than the *Peony*. Ray.) I have seen admirable Effects, says *Tournefort*, produced by it in the hysterick Passion, and in the most violent Paroxysms of the Asthma: You must pour a Quart of boiling Water upon one Ounce of the Roots; withdraw the Vessel from the Fire, cover it well, and drink the Infusion by Glass-fulls. The Extract of these Roots is very useful in the same Distempers; ʒi thereof is usually given with gr. i. of *Laudanum*, or the *Laudanum* mixed with ʒss of the powdered Roots. *Tournefort*.

The Leaves are esteemed effectual to cure the Thrush and Ulcers in the Mouth and Gums accompanied with an Inflammation.

The Roots of the wild Valerian are used in the cephalick Decoction, in Treacle-Vinegar, in the Orvietan, in the hydragogue Syrup, and the Anti-epileptic Syrup of *Charras*.

Valeriana hortenſis, *Phu folio olſarri* Dioscoridis. C. B. *Valeriana major*, *odorata radice*. J. B. *Valeriana hortenſis* Dod. Great garden Valerian or Setwall: It agrees in Virtues with the wild Valerian: *Schroder* enlarges excessively upon its Virtues, the Root and Herb too, he says, is Alexipharmic, Sudorific, and Diuretic. Of chief Use in a weakness of Sight, in the Plague and pe-

stential Diseases (where it enters as a principal Ingredient in Treacle and Mithridate) in an Asthma, old Cough, Pleurisy, an Obstruction of the Liver, Spleen, Ureters, and in a Rupture, &c. It strengthens the Sight outwardly applied, and takes off all Spots, Pins or Webs in the Eyes, the Decoction thereof in Wine or Water being dropped into them, eases the Pain of the Head, provokes Sweat used in Baths, dries up Catarrhs, by Suffumigation corrects the Malignity of Bubo's and Carbuncles, draws out Balls and Arrows out of the Flesh, and cleanses old Ulcers. This appears too hyperbolic: We know certainly, says *Caspar Hoffman*, *Lib. 2. Sect. 232.* that it is powerfully Diuretic.

Valeriana palustris minor. C. B. *Valeriana minor*, *pratensis vel aquatica*. J. B. small wild Valerian: As it agrees in Powers with the others, it may be used as a Substitute.

Valeriana Celtica: *Nardus Celtica* Dioscoridis. C. B. *Nardus Celtica*. J. B. *Nardus Alpina*. Clus. Celtic Spikenard: It grows, says *Dioscorides*, upon the Mountains of *Liguria*, and in *Istria*: It is hot and dry, and has the same Powers and Virtues with the *Indian Spikenard*, but is more strongly Diuretic, and more beneficial to the Stomach: It is of use in Inflammations of the Liver, and in the Jaundice: It cures the swellings and windiness of the Stomach, taken with the Decoction of Wormwood: It is likewise useful in all Distempers of the Spleen, Reins and Bladder, and against poisonous Bites: It is used externally in all Oils and Ointments, to warm and heat the Parts affected with any cold Distemperature. *Diosc. Cap. 7. Lib. 1.*

It is of greater Efficacy than the *Indian Spikenard*, as a Diuretic, and as a Strengtheners of the Stomach, and dispels Wind more powerfully. *Dale*.

It may be given in Powder, from a Scruple to a Drachm, and in Tincture to half an Ounce: It is much used in the great Treacle, where it undergoes a long and difficult Preparation, for they are forced to put it sometime in a Cellar, to render it moist, that the little Root may peel, which is the only Part that enters into the said Composition. Great care ought to be taken in the Choice, because several little

extraneous Plants are usually mixed with it, such as Bastard Spikenard, *Hirculus*, and such like: That is best which is fresh, sweet-scented, with many small Fibres, full and strong, and not brittle: It is brought in great plenty from the *Alps* by the Way of *Marseilles* or *Rouen*.

Valeriana Alpina minor. C. B. *Nardus montana*, radice olivari. C. B. *Nardus montana*, radice oblongâ. C. B. *Nardus montana*, longius radicata. Camer. Mountain Spikenard: This Species is possessed of the same Virtues with the *Celtic*.

TABLE XLI. Fig. 2.

GENUS V.

Valerianella, Lambs-Lettuce or Corn-Sallad.

THE *Valerianella* is a Plant with a Flower of one single Leaf, shaped like a Funnel, and cut into several Segments ABCD, and rests upon the Flower-Cup EFG, which is afterwards changed into a Fruit containing but one Seed, yet variously shaped: Sometimes the Fruit is formed like the Head or Steel of a Spear or Lance H, composed of two Parts I, the one or the other whereof K encloses the Seed L. Sometimes it is of an oval Shape, umbilicated, and ends in three Points MN, containing but one Seed: The Fruit O carries but one Seed in its Concavity, which is shaped like a Bason, and elegantly cut or infected: The Fruit P is longer than the others, spongy, shaped at the Top into the Form of a Crescent, and contains a round oblong Seed QR; the Fruit S terminates in three Hooks, and encloses a Seed somewhat crooked T.

Its Species are,

Petty Valerian of the Fields, early ripe, low, and bearing a flat Seed, *Valerianella arvensis*, *præcox*, *humilis*, *semine compresso*. Mor. Umb. *Valeriana Campestris*, *inodora*, *major*, the greater Valerian of the Fields without Smell. C. B. Pin. 165. *Locusta her-*

ba, Herb Locust. J. B. 3. 323. Lambs-Lettuce or Corn-Sallad.

It is found sometimes not above a Hand-breadth high, sometimes a Span, with a slender Root, fibrous at the Bottom, of a sweetish and almost insipid Taste: The Leaves are tender and delicate, half an Inch, an Inch, or two Inches in length, and about the third Part of an Inch broad, of a grassy Colour, roundish, without Foot-stalks, and almost of the same Taste with the Root; from whence several Stalks shoot, angular, slender and branched, constantly dividing into two Branches, which is a Characteristick of this *Genus*: Among the Leaves of the highest little Branches there stand together some few beautiful little Flowers of a whitish or a diluted purple Colour, cut into five Segments, which contain most slender *Stamina* and Chives, almost imperceptible to the Sight: The Seeds are round, a little flat, sharp-pointed at the Top, marked with some wrinkles running obliquely, of a whitish Colour, large enough in proportion to the Size of the Plant: Before they are perfectly dry they drop: It is found commonly in the Fields, in Vineyards and Gardens: The Lambs delight much in feeding upon this Herb, and are much fattened thereby, as is said, from whence it had the Name of Lambs-Lettuce.

Valerianella arvensis, *præcox*, *humilis*, *foliis serratis*: *Lactuca agnina*, sen *Valerianella foliis serratis* Raii Hist. 392. *Locusta altera foliis serratis*. J. B. 3. 324. Small Corn-Sallad or Valerian with jagged Leaves.

It has a single, slender, white Root, furnished with some few Fibres: The Leaves are smaller and narrower than those of the common Lambs-Lettuce; those that grow upon the higher Part of the Stalk at the Divisions of the Branches, two placed in opposition one over against the other, are more deeply infected or toothed: The Stalk is about a Span, sometimes a Foot high, upright, stiff, yet slender, channelled, somewhat hairy, divides it self into two Branches, these again into two little Branches, and the little Branches divide again into two little Twigs, &c. For this Plant in its

Division still observes this Order of Dichotomy: The Flowers stand several together at the Tops of the little Branches, they are small, of a purplish Colour, and cut into five Jags or Segments: The Seeds are large enough in proportion to the Plant, when ripe of a reddish Brown, somewhat striated, almost shaped like the little Stones of Grapes, but smaller: It is found frequently among the Corn: It differs from the Lambs-Lettuce, in that its Leaves are narrower, and toothed about the Base; that it rises to a greater Height, and flowers later, viz. about the end of June.

Lambs-Lettuce, or petty Valerian of the Fields, flowering late, rising to a greater Height, and bearing a swelling Seed, *Valerianella arvensis, serotina, altior, semine turgidiori.* Mor. Umb.

Small Valerian, with a round, naked, and umbilicated Seed, *Valerianella semine umbilicato, nudo, rotundo.* Mor. Umb.

Small Valerian, with an oblong, naked, and umbilicated Seed, *Valerianella semine umbilicato, nudo, oblongo.* Mor. Umb.

Small Valerian with a greater, hairy, and umbilicated Seed, *Valerianella semine umbilicato, hirsuto, majore.* Mor. Umb.

Small Valerian, with a lesser, hairy, and umbilicated Seed, *Valerianella semine umbilicato, hirsuto, minore.* Mor. Umb.

Small Valerian, resembling the *Cornucopia*, with a galeated Flower, or a Flower bearing the Shape of a Helmet, *Valerianella Cornucopoides, flore galeato.* Mor. Umb. This is the *Valeriana peregrina, purpurea, albave*, purple or white foreign Valerian, C. B. Pin. 164. the *Valeriana peregrina, seu Indica*, Indian foreign Valerian of J. B. 3. Part. 2. 212. and the *Valeriana Indica* of *Clusius.* Hist. LTV.

This Plant rises to the Measure of a Span or a Cubit in-height, from a short, white, slender and fibrous Root, of a bitterish Taste, accompanied with a certain aromatick Sharpness: The Stalk lies partly bending and spread upon the Ground, partly upright, about a Span in length, smooth, hollow, round, reddish, channelled, and divided in a certain Series or Order into two Branches like the others of this Species: At the Divisions of the Branches two Leaves are set, one on each Side, two or

three Inches long, one Inch, rarely, two broad, like those of the mountain Spikenard, lesser than those of the broad leaved Plantain, distinguished with several Nerves, tender, fat, of an aromatick Taste, the uppermost whereof are smaller than the lower, and at their Origine somewhat notched or indented: The Flowers stand as it were in Umbels, are of an agreeable Red, sometimes of a white Colour, and cut into five Leaves or Segments, the two uppermost whereof are shorter and broader than the rest, the other two hang down like Labels or Lips, and the fifth is the longest standing in the Middle: They are succeeded by oblong spongy Fruit, jointed or knotted, which contains an oblong round Seed: It grows near to *Messina* in *Sicily*, so that we need not search for it in the *Indies.* *Bauhin* tells us, that *Paschalis Gallus* sent him that with the white Flower from *Padua*; and no doubt it is to be found in several other Parts of *Europe.*

Valerianella Cornucopoides Echinata, small, prickly Valerian, resembling the *Cornucopia.* Columna. Part. 1. 206.

From a slender, yellowish Root, very little scented, and of the Taste of Valerian, it sends up some few short Leaves, not unlike to those of the common Sort, but somewhat smaller and smooth, imitating the lesser wild Valerian, having two or three hollow Windings or Bosoms round their Edges, half a Finger broad, those that are placed at the Bottom of the Stalk are two Inches long, and more deeply indented.

Those that stand upon the Branches are broader at that part by which they are fastened, and more cut in upon both Sides into Lobes, and greater, that they appear almost winged: Those that stand higher are formed after the same Manner, but smaller and still decreasing in bigness: The Stalk is about two Inches long, with one joint in the Middle, at which stand two Leaves oppositely placed as in the other Sorts, (from the Bosoms whereof some little Branches shoot, which is to be observed) flat, smooth, fashioned hollow, like a Pipe or Gutter, at the Top it divides into two Branches, smooth, hollow and expanded, always observing this double

Division in the Branchings, and somewhat thick at the Joints where they divide; at their Tops are some little Tubes, somewhat flat, and hollowed like a Pipe likewise, thicker, broader, and shorter than the other Intervals between the Joints or Knots, shaped like an inverted Pyramid, broader, to wit, at the Top, and gradually lessening downwards; they are winged with little narrow Leaves, and have little Heads or Buttons with a leafy Base, composed of many small Flowers standing thick together, like to those of the Valerian or Spikenard, from a bluish Purple inclining to a whitish Colour; they stand upon a horned and crooked Fruit: The Flowers drop in June, when the Fruit grows thicker, and the little Horns larger, harder, and of a yellowish or pale Colour, and remain thickly set, numerous and crooked, in a circular Disposition, so that the Top of this Plant, when loaded with its Flowers or Fruit, imitates the Figure of the Cornucopia, or Horn of Plenty: Between the two highest little Tubes, in each hollow or Bosom there lies a Fruit, which being flattened by reason of the narrowness of the Place stretches to a greater Length than the rest: It is ripened in Summer: The whole Plant is about a Foot in height: It grows in shady mountainous Parts in several places of Italy.

Small Valerian with a starred Seed, *Valerianella semine stellato*. C. B. Pin. 165. This is the *Valerianella semine scabiosa stellato, hirsuto & etiam umbilicato*, small Valerian with a starry scabious Seed, hairy, and likewise umbilicated, of Columna. Part. 1. 209.

The Root in Form and other Qualities is like the others above described: The bottom Leaves are narrower, and less infected; but those which shoot out from the middle of the Stalk are divided into four long Jags, after the manner of Spikenard, or the

greater Valerian; and those that stand next to the Branches are cut into five or three Parts, narrow and long, and somewhat slender towards the Top: The Stalk is about half a Foot high, strait, solid, of a purplish Colour, branched towards the Top, still observing the same Order in its Branching with the others of this Genus: At the Top of the Plant stand sixteen little Umbels, two always conjoined, composed of many little Flowers closely collected, of a whitish purple Colour, with some very slender Stamina: The Flowers stand upon Fruits resembling little Bladders, which show like a Star when the Flower is fallen, cut into six Rays, somewhat hollow in the Middle, and of a cartilaginous Substance, like those of Scabious, it is hairy too and umbilicated; about the end of Summer they are ripened, and when dry appear of a brownish Colour: It flowers in June; it grows in like Places as the former.

Valerianella scabiosa semine, major, Lusitanica, the greater Corn-Sallad of Portugal, with a scabious Seed. Mor. Umb.

Valerianella Cretica, fructu vescario.

Small oriental Valerian, with a small horned Fruit, *Valerianella orientalis, fructu parvo corniculato*.

It is called *Valerianella*, a Diminutive importing a small Valerian: When it is without Flower and Fruit, it is usually distinguished by its Stalks, which constantly divide into two Branches, and its Leaves, which are smooth and full of Veins, two always placed together, the one over against the other.

The first Species, which is the Lambs-Lettuce of the Shops, cools and moistens, and is a little laxative, in temper and faculties not unlike to Lettuce, and in the Winter and beginning of the Spring is used as a Pot-herb in the Room of it.



Borrage. *Borage*.

Fig. 1.



Buglossum. *Bugloss*.

Fig. 2.



S E C T. IV.

Of Herbs with a Flower of one single Leaf, shaped like a Funnel, or a Wheel; whose Pointal is encompass'd with four Embryo's, as it were, or rudiments of the succeeding Fruit, which change into so many Seeds that ripen in the Flower-Cup.

T A B L E XLII. Fig. I.

G E N U S I.

Borago, Borage,

IS a Plant with a Flower of one single Leaf A, shaped like a Wheel; out of whose Flower-Cup C, which is divided into several Segments, the Pointal D rises, fixed like a Nail in the middle Part of the Flower B, and encompassed with four Embryo's, that change into so many Seeds F, in form like unto a Viper's Head, and ripen in the Flower-Cup much enlarged E.

Its Species are,

Borago with blue Flowers, *Borago floribus caeruleis*. J. B. 3. 574. *Buglossum latifolium*, *Borago flore caeruleo*. C. B. Pin. 256. *Buglossum* five *Borago Matth.* the Buglofs or Borago of *Matthioli* 1186.

The Root is white, about the thickness of a Finger, and clammy to the Taste: The Leaves are broad, roundish, rough, wrinkled and folded, spread upon the Ground, and armed with very fine, slender, black Prickles: The Stalk is about two Foot high, round, hollow, rough, and branched: The Flowers are of a beautiful blue, white, or purplish Colour, di-

vided into five Segments: In their Disposition imitating the Shape of a Wheel; their Centre is filled by five blackish *Stamina* joined together at the Top, tipped each with an oblong purplish Segment; they easily drop from their hairy Flower Cups: Each Flower is succeeded by four Seeds, large, channelled, broad at the Base, sharp pointed, and of a blackish Colour when ripe.

Borago with white Flowers, *Borago floribus albis*. J. B. 3. 574. This is the *Buglossum latifolium*, *Borago flore candido*, broad-leaved Buglofs, Borago with a white Flower of C. B. Pin. 256.

Borago with a pale-coloured, red or flesh-coloured Flower, *Borago flore pallescente, roseo aut suave-rubente*: *Buglossum latifolium*, *Borago flore pallescente, roseo aut suave-rubente*, broad-leaved Buglofs, Borago with a flesh-coloured Flower. C. B. Pin. 256.

Borago of Candy, with a most elegant Flower of an agreeable red Colour, having its Segments reflected, *Borago Cretica, flore reflexo, elegantissimo, suave-rubente*.

Borago of Constantinople with a blue Flower, reflected, and a bladdered Flower-Cup, *Borago Constantinopolitana, flore reflexo, caeruleo, calice vesicario*.

Borago is one of the principal cordial Plants, and as it agrees in Faculties with the Buglofs, we shall treat of both their Virtues under this last.

TABLE XLII. Fig. 2.

GENUS II.

Buglossum, Bugloss,

IS a Plant with a Flower of one single Leaf A C, shaped like a Funnel, and divided into several Segments: From its Flower-Cup E, which is inserted to the very Base, the pointal F rises, fixed like a Nail in the bottom Part of the Flower B, and environed as it were with four Embryo's, which afterwards change into so many Seeds, in form resembling a Viper's Head H, and ripening in the enlarged Flower-Cup G.

Its Species are,

Ever-green, broad-leaved Bugloss, *Buglossum latifolium, semper-virens*. C. B. Pin. 256. This is the *Buglossum folio Boraginis, Hispanicum*, Spanish Bugloss with a Borage-Leaf of J. B. 3. 577. and the *Buglossum semper-virens*, ever green Bugloss of Lobel. Icon. 575.

It rises with Stalks three Foot and more high, fistulous, angular, hairy, rough, and not branched: The Leaves are like those of Borage, wrinkled and rough, but armed with softer Prickles; those that grow upon the Stalk have no Footstalks, sharp-pointed, especially upon the Stalks, but those that stand lowest next the Ground, are more round and marked with white Spots, much broader, and not so short as in the greater common Bugloss, from whose Bosoms rise hairy Footstalks two or three Inches high, set with two Leaves at the Top, from between which shoot blue Flowers, like those of the Bugloss, but with a shorter and broader Flower-Cup; they are divided into five Segments, but don't all explain or disclose at one Time: Each Flower is succeeded by four Seeds, as happens in all the other Species, in form and bigness like to those of Borage: The Root is thick, furnished with Off-sets, covered with a black thickish Bark or Rind, white within, and of a clammy Taste.

The greater narrow-leaved Bugloss with a blue Flower, *Buglossum angustifolium, majus, flore caeruleo*. C. B. Pin. 256. This is the *Buglossum vulgare, majus*, the greater common Bugloss of J. B. 3. 578. and the *Buglossum angustifolium*, the narrow-leaved Bugloss of Lobel. 576.

The Root sends up several Stalks two or three Foot high, round, and rough, being set with many little stiff Hairs, branched towards the Top, upon which grow many narrow oblong Leaves without Footstalks, from a green inclining to a bluish Colour, not wrinkled like those of Borage, ending in a sharp Point, having a like hairy Covering, not toothed nor indented round the Edges: Out of the Bosoms of the Leaves, sometimes from their Side, higher or lower, the Branches shoot: At the Top of the Stalks and Branches the Flowers rise out of Flower-Cups divided into five oblong, narrow, sharp-pointed and hairy Segments, they are smaller than those of Borage, cut into five blunt or orbicular Segments, from a blue inclining to a purplish Colour; their Bos or Convex centre is blunt-pointed and hairy, composed of five conjoined Stamina or Threads: The oblong Pointal rises from the Bottom of the Flower-Cup, and is encompassed with four Embryo's, which change into so many Seeds, black when ripe, wrinkled, and tapering into a sharp Point: The Tops of the Stalks and the Flower-Cups are of a purplish Colour: The little Twigs which bear the Flowers, before the Flowers blow and disclose, are reflected and wreathed like the Tail of a Scorpion: The Root lives many Years, is black without, white within, and of a tough, viscid Taste: In our Gardens it flowers in the Months of June and July, and afterwards throughout the whole Summer: The Leaves perish and drop off in the Winter, and new ones shoot out in the beginning of the Spring: It grows wild in many Parts of Germany: Mr. Ray found it near to Messina in Sicily, and John Bauhin near to Montpelier and Frontignan.

The greater narrow-leaved Bugloss with a white Flower, *Buglossum angustifolium, majus, flore albo*. C. B. Pin. 276. *Buglossum Italicum*,

litum, flore albo, Italian Buglofs with a white Flower. Eyß.

The greater narrow-leaved Buglofs with a Flower of a ruddy Colour, or furnished with various Colours, *Buglossum angustifolium majus, flore rubeo aut variegato. C. B. Pin. 256.*

Buglofs with sinuated Leaves, *Buglossum foliis sinuosis. C. B. Pin. 256.*

Common Buglofs, differing in roughness and height, *Buglossum vulgare, asperitate & proceritate discrepans. C. B. Pin. 256. Buglossum vulgare, albo & violaceo colore, common Buglofs, with Flowers of a white and violet Colour. Eyß.*

The greater wild, black Buglofs, *Buglossum sylvestre, majus, nigrum. C. B. Pin. 256. Buglossum alterum flore nigro, Buglofs with a black Flower of Matthiolum 1188.*

The greater Buglofs of Candy, with a blue Flower inclining to a purplish Colour, *Buglossum Creticum, majus, flore ceruleo, purpurante. H. R. Par. Boragine sylvestre di Candia, di fior azzuro; wild Buglofs of Candy, with an azure-coloured Flower. Zanoni. 51.*

Buglofs of Portugal, with an undulated Vipers-Buglofs Leaf, *Buglossum Lusitanicum, Echii folio undulato.*

The lesser narrow-leaved Buglofs, *Buglossum angustifolium minus. C. B. Pin. 256.* This is the *Buglossum vulgare, minus*, the small common Buglofs of *J. B. 3. 578.* the *Echii facie, Buglossum minimum, flore rubente*, the smallest Buglofs, with the Face and Appearance of Vipers Buglofs, and reddish Flowers, of *Lobel. Icon. 576.*

This Species differs from the great, common, narrow-leaved Buglofs, in the smallness of its Parts; it has long and rough Leaves like it, but narrower or more contracted: The Flowers are smaller, and of a white or purplish Colour; yet the Stalk sometimes comes little short of that of the other in height: According to *Tragus*, it is shorter, narrower, sharper-pointed, and in every respect smaller, in the Seed especially, which is besides of a more blackish Colour: The Flowers are alike, some of them constantly purple, others blue: *J. Bauhin* calls this Species *Buglossum angustiore folio, flore minore*, Buglofs with a narrower Leaf, and a smaller Flower, of which he had two

Sorts from *Fuchsius*, one with a purple Flower, of the Colour of Alkanet or of the Violet, the other with a white Flower: It grows by the Way-sides, and upon the Borders of Fields in *Italy, France, and Germany*; with narrow Leaves, small Flowers of a dark purple Colour.

The lesser wild Buglofs, *Buglossum sylvestre, minus. C. B. Pin. 256. Echium Fuchsii, sive Borago sylvestris, Fuchsius* his Vipers-Buglofs, or wild Borage, according to *J. B. 3. 581. Buglossa sylvestris Dod. Pempt. 628.* small wild Buglofs.

It has a white Root, long, single, and somewhat fibrous; from the Head whereof several Stalks rise, a Span or a Foot and a half, sometimes more in height, hairy, rough, branched, and brittle: The Leaves resemble those of the Vipers-Buglofs, but are more hairy, have several Bosoms or Windings, are disposed in an alternate Order, and of an insipid Taste; but those out of whose Bosoms the Flowers shoot, are somewhat short, triangular, and adhering to the Stalk by a broad Base, end in a sharp Point: The Flowers rise at the Tops of the Stalks and Branches out of the Bosoms of the Leaves, their Flower-Cups are hairy and divided into five Parts, and the Footstalks upon which they stand very short: They are small, cut into five roundish Segments, and of a blue Colour: The Pointal lies concealed within the Flower; the Stamina or Threads are short, and as it were woolly: The flowery Tops of the Stalks and Branches, before the Flowers blow or disclose, wreath and turn themselves after the manner of a Scorpion's Tail, as do all the others of this kind: Each Flower is succeeded by four naked Seeds, like to those of the Vipers-Buglofs, wrinkled, and of a black Colour when ripe, broad at the Base, and sharp-pointed: It grows commonly among the Corn, and in Fallow-Ground.

The smallest, sweet-scented Candy Buglofs, with an elegant Flower of various Colours, *Buglossum Creticum, minimum, odoratum, flore vario eleganti. H. R. Par. Boragine murale, con fior odorato di Candia, Wall Borage of Candy, with a scented Flower of Zanoni. 47.*

The

The Flowers are of a red Colour, elegantly streaked with white.

Buglossum Creticum, verrucosum, perlatum quibusdam. H. R. Par. *Buglossum Lusitanicum bullatis foliis.* Morisf. H. R. Blesf. Blistered Bugloss.

Narrow-leaved Bugloss with a prickly Seed, *Buglossum angustifolium, semine echinato*: This is the *Cynoglossum minus*, or lesser Hounds-Tongue of C. B. Pin. 257. J. B. 3. 600. and the *Cynoglossa minor Plinii*, of *Colonna. Part. 1. 179.*

The Root is small, hard, woody, has a thick Bark or Rind, and many long, slender, oblique, woody Fibres, is of a black Colour, and sweet Taste: The Stalk is slender, angular, hairy, and at the most two Foot high, adorned with many oblong Leaves, like those of Gromil, green, soft, covered with a long, white, hairy Down, and stand close together at about half a Finger's Distance from one another in an alternate Order, and are bitter to the Taste; from the Bottoms or Bosoms of the Leaves other small ones shoot out: The Stalk at the Top divides into three, four, or five little Branches, a Foot sometimes in length, crooked or bended at the Top, and covered with slender, hairy Leaves, alternately placed upon each Side, as are the little Footstalks of the Flowers and Fruit upon the extrem little Twigs: The Flowers are very small, less than those of the *Echium Scorpioides*, of a beautiful blue Colour, cut into five Segments, and are marked within upon the Bottom with a yellow Star: They are succeeded by an oblong pyramidal Fruit, armed with long and slender Prickles: The Seed is oblong, oval, narrow, three-cornered, hollow upon the Back, and umbilicated, of a brownish Colour when ripe, and very rough or prickly, apt to stick to the Garments: It grows naturally near to *Geneva*, in *Austria*, and about *Naples*, and elsewhere.

Bugloss with a red Root, or common Alkanet with blue Flowers, *Buglossum radice rubra, sive Anchusa vulgarior, floribus caeruleis*: This is the *Anchusa puniceis floribus*, Alkanet with Flowers of a light red, of C. B. Pin. 255. the *Anchusa Monspeliensis*, Alkanet of *Montpelier*, of J. B. 3. 584. and

the *Anchusa parva*, or small Alkanet of *Lobel. Icon. 578.*

It has a thick, long, woody, and red Root; the Leaves, as well those that adorn the Stalk, as those that shoot immediately from the Head of the Root, are like those of the Vipers-Bugloss, set with stiff Hairs, and an Inch or two in length: The Flowers are of a purplish Colour, and stand thick together upon the Extremities of the little Branches: The Seed is somewhat long, and of an ash Colour: The Taste of the Plant is not disagreeable, somewhat like to that of Bugloss, but sharper: It grows naturally about *Montpelier*.

Bugloss with a red Root, or common Alkanet with white Flowers, *Buglossum radice rubra, sive Anchusa vulgarior, floribus albis.*

Bugloss with narrow, indented Leaves, *Buglossum angustis, dentatis foliis: Anchusa angustis, dentatis foliis*, Alkanet with narrow, indented Leaves. *Boccone. Mus. Part. 2. 84. Tab. 77.*

Shrubby Bugloss, with a Rosemary Leaf, *Buglossum fruticosum, Rorismarini folio*: This is the *Anchusa angustifolia*, or the narrow-leaved Alkanet of C. B. Pin. 255. *Libanotidis species Rondeletii.* J. B. 2. 25. *Anchusa minor, lignosior, ejusdem.* 3. 582. *Anchusa lignosior, angustifolia.* *Lob. Icon. 578.*

It is a woody Shrub, a Foot or a Foot and a half high, with a strong Root of a brownish red Colour: The Stalks or Stems are hard and stiff, of a like Texture with those of Rosemary, otherwise smooth, but with some lesser hairy Branches, which are covered with Leaves like to those of the *Arabian Hyssop*: Others there are, which after the manner of those of the little Heads of *Candy Thyme*, are broader, hairy, rough, hard, shooting out often several together from the same Point, one whereof is much longer than the rest, each of them has one Nerve running lengthways; they have no Taste nor Smell: The Flowers are of a purple Colour; according to *Clusius*, of a deep Blue, and stand upon the Extremities of the little Branches: The Seeds are like those of Bugloss, or of the Vipers-Bugloss, pretty large, and of an ash Colour: The Tops of the Stalks and Branches wreath and wind like

like a Scorpion's Tail: It grows upon the barren Eminences in the Fields about *Montpelier*, as also near to *Castelneuf*.

Shrubby Buglofs of *Portugal* with a Gromil Leaf, *Buglossum fruticosum*, *Lusitanicum*, *Lithospermi folio*.

Annual Buglofs of the Fields, with a Gromil Leaf, *Buglossum arvense*, *annuum*, *Lithospermi folio*: This is the *Lithospermum arvense*, *radice rubra*, or Gromil of the tilled Grounds, with a red Root of *C. B. Pin.* 258. The *Lithospermum nigrum quibusdam*, *flore albo*, *semine Echii*, or black Gromil of some Authors, with a white Flower, and a Vipers-Buglofs Seed, of *J. B.* 2. 592. and the *Echioides alba* of *Columna*, *Part.* 1. 185. Bastard Alkanet, or Gromil, *Salfern*.

The Root is single, woody, of a reddish Colour, and annual; it sends up sometimes but one, sometimes more Stalks, a Foot and more in height, hairy, branched at the Top, solid, channelled, green, adorned with Leaves like to those of the common Gromil, which are less numerous upon the Stalk, not so full of Nerves, softer, and not so rough, and of a blackish Colour, which still diminish in bigness the higher they stand upon the Stalk: The Flowers rise singly upon short Footstalks from the Bosoms of the Leaves, encompassed with the five oblong, narrow, and hairy Leaves of the Flower-Cup; they resemble those of the *Milium folis*, or common Gromil, but are not of a grassy but of a white Colour: Each Flower is succeeded by four Seeds, like to those of the Vipers-Buglofs, but smooth and shining: This Plant flowers in *May* and *June*; and is found every where commonly about the Corn.

The smallest, annual, yellow Buglofs, *Buglossum luteum*, *annuum*, *minimum*: This is the *Anchusa lutea*, *minor*, or the lesser yellow Alkanet of *J. B.* 3. 583. The *Echioides lutea*, *minima*, *Apula Campestris* of *Columna*, *Part.* 1. 184. and the *Anchusa lutea*, *minima* of *Lobel. Obs.* 312.

It has a slender and woody Root, covered with a dark brownish Bark, white within; from whence shoot several Leaves that lie spread upon the Ground, pretty narrow, their breadth equalling the Diameter of the Stalk, like unto those of Flax, but broader towards the Top, fleshy, hairy,

somewhat hard, but softer near to the Stalk: It rises with three or four Stalks about a Span or a Foot high, of a whitish Colour, round, hairy, very full of Leaves, and marked at the Top with Spots from a yellow inclining to a purplish Colour, dividing into five, three, or more little Branches, deck'd with little Leaves, winged upon both Sides: The Flowers are of a yellow Colour, slender, small, and cut into five Segments, spread in the Fashion of a Star: They are succeeded by four Seeds which ripen in the Flower-Cup: It flowers in *April*, and ripens its Seed in *May*: It produces one Flower before the rest, at the Angle of its Division, which the Branches make with the Stalk, which has no Footstalk.

Portugal Buglofs, with rough, oblong, narrow and curled Leaves, *Buglossum Lusitanicum*, *foliis asperis*, *oblongis*, *angustioribus & crispis*.

Portugal Buglofs with narrow Leaves, blistered with the smallest little Swellings or Excrescences, *Buglossum Lusitanicum*, *foliis angustioribus*, *bullis minimis exasperatis*.

Hoary Sea Buglofs, with a blue Flower, *Buglossum maritimum*, *incanum*, *ceruleo flore*. *H. Lugd. Bat.* This is the *Cynoglossum procumbens*, *glaucophyllon*, *maritimum*, *nostras*, *floribus purpureo-ceruleis*, *semine laxi*, *English* Hounds-Tongue, with Stalks lying spread upon the Ground, bluish Leaves, Flowers of a blue-purple Colour, and a smooth Seed, growing upon the Sea-Coasts, of *Plukenet. Phytog. Tab.* 172. *Fig.* 3. and the *Echium maritimum*, or Sea Vipers-Buglofs of the *Phytolog. Britan.*

Its Leaves are small, of a bluish Colour, like those of the *Cerithe* or Honey-wort, in form imitating those of the *Beta marina*, but much smaller: The Flowers are small, and of a blue Colour, fistulous, like those of the Honey-wort, but shorter; each Flower is succeeded by four Seeds: The Stalks are weak, and lie spread upon the Ground.

Mr. Ray suspects this to be the *Buglossum dulce ex insulis Lancastræ*, the *Lancashire* Buglofs of *Parkinson*, which is thus described by him.

Lancashire Buglofs shoots forth many slender Stalks a Cubit high, some more, some

some less; the lower Leaves whereof next the Ground are much smaller than those of Borage, and of a whiter Green, somewhat rough; but those that grow upon the Stalks are lesser, having the Flowers set at the Joints with them, whose Buds before they are blown are of a reddish Colour, but when opened are of a bluish Purple, somewhat like those of Vipers-Bugloss, or between them and Borage-flowers, of a very sweet Taste, like Honey: The Root is great, and blackish on the Out-side, divided downwards into some large Twigs or Branches.

Perennial Candy Bugloss, lying spread upon the Ground, without Stalks, and with a very narrow Vipers-Bugloss Leaf, *Buglossum Creticum, humifusum, acaulon, perenne, Echii folio angustissimo.*

Shrubby Bugloss of the Island Samos, with Rosemary Leaves of a dark green Colour, shining, and hairy, *Buglossum Samium, frutescens, foliis Rosmarini obscure virentibus, lucidis, hirsutis. Anchusa arborea. Prosp. Alp. Exot. 69.*

Annual Corn Bugloss of the Island Scio, with a Gromil Leaf, and a blue Flower, *Buglossum Chium, arvense, annuum, Lithospermum folio, flore caeruleo.*

Upright, oriental Bugloss, with undulated Leaves, and a Flower of a beautiful blue Colour, *Buglossum orientale, erectum, foliis undulatis, flore amœnè caeruleo.*

The highest, narrow-leaved, oriental Bugloss, *Buglossum orientale, angustifolium altissimum.*

Oriental Bugloss with a yellow Flower, *Buglossum orientale, flore luteo.*

Narrow-leaved oriental Bugloss, with a small blue Flower, *Buglossum orientale, angustifolium, flore parvo, caeruleo.*

Bugloss differs from Borage in the Structure or Form of its Flower: The Name is a Compound of the two Greek words *Bœs*, signifying an Ox, and *γλῶσσα*, a Tongue, as if we should say in English, an Ox-Tongue.

Borage and Bugloss, as is said above, agree in virtues: The Flowers of both are reckoned among the four famous cordial Flowers.

The Species of Bugloss most commonly used, is the *Buglossum angustifolium majus* C. B. which is the *Buglossum hortense*, the garden, or common Bugloss of the Shops: The Roots of this Plant abound with a clammy Juice, and give a deep tincture of red to the blue Paper; the Flowers redden it but little, and the Leaves make almost no change in its Colour; this gives ground to conjecture that the Salt-Armoniac of the Plant lies involved and fettered in a clammy Juice, in which Earth and Sulphur are predominant. Bugloss moistens, cools, and exhilarates the Spirits, consequently beneficial to melancholic Tempers: It is of use to remove a Catarrh or Defluxion upon the Breast, and obstinate Coughs; the Juice is prescribed from $\mathfrak{z}$ III to $\mathfrak{z}$ VI. A Pilsan made thereof is taken by Cupfuls: The Roots and Leaves are useful Ingredients in cooling Broths: This Plant cools by no other virtue than by restoring to the Blood its due Velocity, which when wanting, the Blood in some measure stagnates, and enflames the Parts by reason of its retarded Circulation: The Flowers of Bugloss may be used after the manner of Tea: A Conserve too is prepared from them, and a Syrup from the Juice of the Leaves, which affords great relief to melancholic Persons: This Juice enters as an Ingredient in the simple Byzantine Syrup, and the Compound of *Aesue*, and into the Syrup of Spleen-wort, of *Fernelius*.

Buglossum radice rubrà, sive Anchusa vulgarior, floribus caeruleis: Anchusa puniceis floribus. C. B. *Anchusa Monspeliana.* J. B. *Alciadion vel Onochiles.* J. B. Ger. *Alkanet.* *Discorides* tells us this Plant is of peculiar Efficacy against the Poison of Serpents, especially of the Viper: The Root dissolved in Oil, gives a red Dye; infused into *Petroleum* it is recommended as a singular Remedy to cure any fresh Cut or Wound made by sharp and pointed Tools: The Ancients have enlarged much upon the Virtues of this and some other sorts of the *Alkanet*, which we judge unnecessary here to transcribe: The Curious may satisfy themselves by having recourse to *Dioscorides*, *Pliny*, *Galen*, and others.



Asperugo.

Small wild Bugloss, Great Goose-grass, German Madwort

Fig. 1.



Echium. Tipers-Bugloss.

Fig. 2.



TABLE XLIII. Fig. 1.

GENUS III.

Asperugo, Small wild Bugloss, Great Goose-Grass, German Mad-wort.

THE *Asperugo* is a Plant with a Flower of one single Leaf A, in the Form of a Funnel, and cut into several Segments: Out of its Flower-Cup C, shaped like a Basin (which afterwards of it self closely shuts D) the Pointal E rises, fixed like a Nail in the bottom Part of the Flower B, and encompassed with four Embryo's, which afterwards change into so many Seeds F, for the most part of an oblong Figure K, that ripen in the Flower-Cup, much enlarged I, whose Parts G H are then so closely compressed and contracted, that they adhere and cling together.

Its Species are,

Asperugo vulgaris: *Buglossum sylvestre*, *caulibus procumbentibus* C. B. Pin. 257. *Cynoglossa* forte *topiaria* Plinio, sive *Echium lappulatum* quibusdam J. B. 3. 590. *Asperugo spuria*. Dod. Pempt. 356. Small wild Bugloss, Great Goose-Grass, German Mad-wort.

From a very slender, white, and single Root, it sends up Stalks three Foot and more in height, angular, branched, concave, with little stiff rough Hooks at the Angles, sticking or cleaving to the Garments, and stretching along the Surface of the Ground, unless they find some near Support whereupon to climb: At the Bottoms of the Stalks the Leaves stand singly, at the Tops two or three, sometimes four together, two Inches long, narrow, (the lowermost whereof are more bluntly pointed than those that stand higher) and covered with a short Wool: The Flowers shoot singly from the bottoms of the Leaves, sometimes they stand singly at the Divisions of the Branches, upon short Foot-stalks; they incline from a violet to a purplish Colour, and are cut into five Segments: The Flower-Cup, when the Flower

drops, dilates it self into a large seminal Vessel, as it were bivalve, triangular, having its Edges divided into several Corners or sharp-pointed Jags, and encloses four flat dusky Seeds closely conjoined: The Taste and Smell of the whole Plant is like that of Borage: The Tops of the Stalk and Branches loaded with Flowers wreath and wind themselves like a Scorpion's Tail before the Flowers blow or disclose: It is rarely found in England: Mr. Ray says he found it near to Newmarket, near to Boxley in *Sussex*, and in *Holy-Island*: It flowers in the Month of May, and when it has ripened its Seed it totally perisstheth.

Asperugo tenuior, *floribus albis*: *Buglossum caulibus procumbentibus*, *tenuibus*, *floribus albis* Mentz. Pug. Tab. 7.

This Species, or rather Variety, was found by *Mentzelius*, growing near *Farstenwald*, and in other places of *Brandenburgh*.

TABLE XLIII. Fig. 2.

GENUS IV.

Echium, Vipers-Bugloss,

IS a Plant with a Flower of one single Leaf AB, shaped like a Funnel, and somewhat inflected, whose upper Brim stretches out to a greater length than the lower or inferior: Out of the Flower-Cup DEF, cut in for the most Part to the very Base, the Pointal G rises, fixed like a Nail in the back Part of the Flower C, and encompassed as it were with four Embryo's, which afterwards change into so many Seeds shaped like a Viper's Head H, that ripen in the Flower-Cup, which becomes much enlarged and dilated I.

Its Species are,

Great and rough Vipers-Bugloss, with a white Flower, *Echium majus*, & *asperius*, *flore albo*. C. B. Pin. 254. *Echium albo flore*, *majus*. J. B. 3. 588. *Echium flore albo*. *Camerar.* Epit. 738.

The greater and rougher Vipers-Bugloss, with a Flower of a pale purple Colour, *Echium majus* & *asperius*, *flore dilute purpureo*.

pureo. Bot. Monspel. Lycopsis Monspeliaca, floribus dilute purpureis. Moris. H. R. Blef.

Echium amplissimo folio Lusitanicum, Vipers Bugloss of Portugal with a very large Leaf.

Echium vulgare. C. B. Pin. 254. J. B. 3. 586. Echium. Dod. Pent. 631. Common Vipers-Bugloss.

It rises with Stalks above two Foot high, hairy, marked with black Spots, solid, round, covered with many Leaves irregularly disposed, and charged with Flowers from the Bottom almost to the Top: The Flowers are either blue, or from a blue inclining to a purplish Colour, large and beautiful, having their Brims cut into five roundish Jags, somewhat imitating the Shape of a Hunting-horn, and contain within five purplish *Stamina* with a white Pointal: The Flower-Cup is divided into five long, narrow, sharp-pointed and channelled Segments, at the bottom whereof lie four wrinkled Seeds, in shape bearing some Resemblance of a Viper's Head, from whence the Plant had its Name: The Spikes, before the Flowers are blown, wreath and turn like a Scorpion's Tail: From the Root, which is long, about the thickness of a Thumb, woody, and of no remarkable Taste, rise many rough, hairy, oblong, narrow Leaves, which are not notched, marked sometimes with whitish Spots, and insipid to the Taste: It grows by the Road-sides, often upon Walls, and in barren Soils; and flowers throughout the whole Summer: It is sometimes found with a white Flower.

Vipers-Bugloss with a white Flower, *Echium flore albo. H. Edinburg.*

Broad-leaved, red Vipers-Bugloss of Candy, *Echium Creticum, latifolium, rubrum. C. B. Pin. 254.* This is the *Echium Creticum*, 1 *Clus.* The first Vipers-Bugloss of Candy, according to *Clusius. Hist. CLXIV.*

Its first Leaves which lie spread upon the Ground are large, of a Size between those of Plantain and Bugloss, from among which rise up round rough Stalks, divided into many Branches, whereupon stand irregularly smaller hairy Leaves: The extrem Branches wreath, and turn or bend like those of the common Vipers-Bugloss, and bear Flower-Cups composed of five

narrow hairy Leaves, in which the Flowers stand, of an elegant pale red at first, but afterward, when older, of a purplish Colour: The *Stamina* or Threads incline from a red to a purplish Colour; the Chives are pale, and the middle Pointal slender, whitish, and forked at the Extremity: The Seed is like that of the common Vipers-Bugloss: It flowers in July and the following Months: It has been found in plenty in several Parts of Narbonne; but rarely about Montpellier.

Vipers-Bugloss of Candy with a Flower of various Colours, *Echium Creticum, flore variegato. H. Edinburg.*

Narrow-leaved Bugloss of Candy with a red Flower, *Echium Creticum, angustifolium, rubrum. C. B. Pin. 255.* This is the *Echium Creticum*, 2 *Clus.* the second Vipers-Bugloss of Candy, according to *Clusius. Hist. CLXV.*

The Stalks of this Species are rougher than those of the last described, round, and marked with small red Spots, like the *Serpentaria* or Snake-weed: The Leaves are about five or six Inches long, one Inch broad, and marked with paler Spots: The Flowers rise upon the Extremities of the little Branches, of a beautiful red Colour, which they never lose; from their Centre shoot up five *Stamina*, two greater and three smaller, and one of these last lesser than the rest; each carries white Chives: It begins to flower about the end of July: Mr. Ray says he found this Species with rougher and almost prickly spotted Stalks, leaning more towards the Ground, near Messina in Sicily.

Wild Vipers-Bugloss, hairy, and spotted, *Echium sylvestre, hirsutum, maculatum. C. B. Pin. 254.* This is the *Echium rubro flore*, the red flowered Vipers-Bugloss of J. B. 3. 589. and of *Clusius. Hist. CLXIV.*

This Plant, says Mr. Ray, differs so little from the preceding, that I can scarce believe it a different Species: However *Clusius* does distinguish it as such, and thus describes it: The Leaves which lie spread upon the Ground are oblong and narrow, hairy, almost the same with those of the common Vipers-Bugloss, but somewhat broader: The Stalk rises sometimes a Foot, sometimes a Foot and a half in height, is firm, channelled, woolly, marked with purple

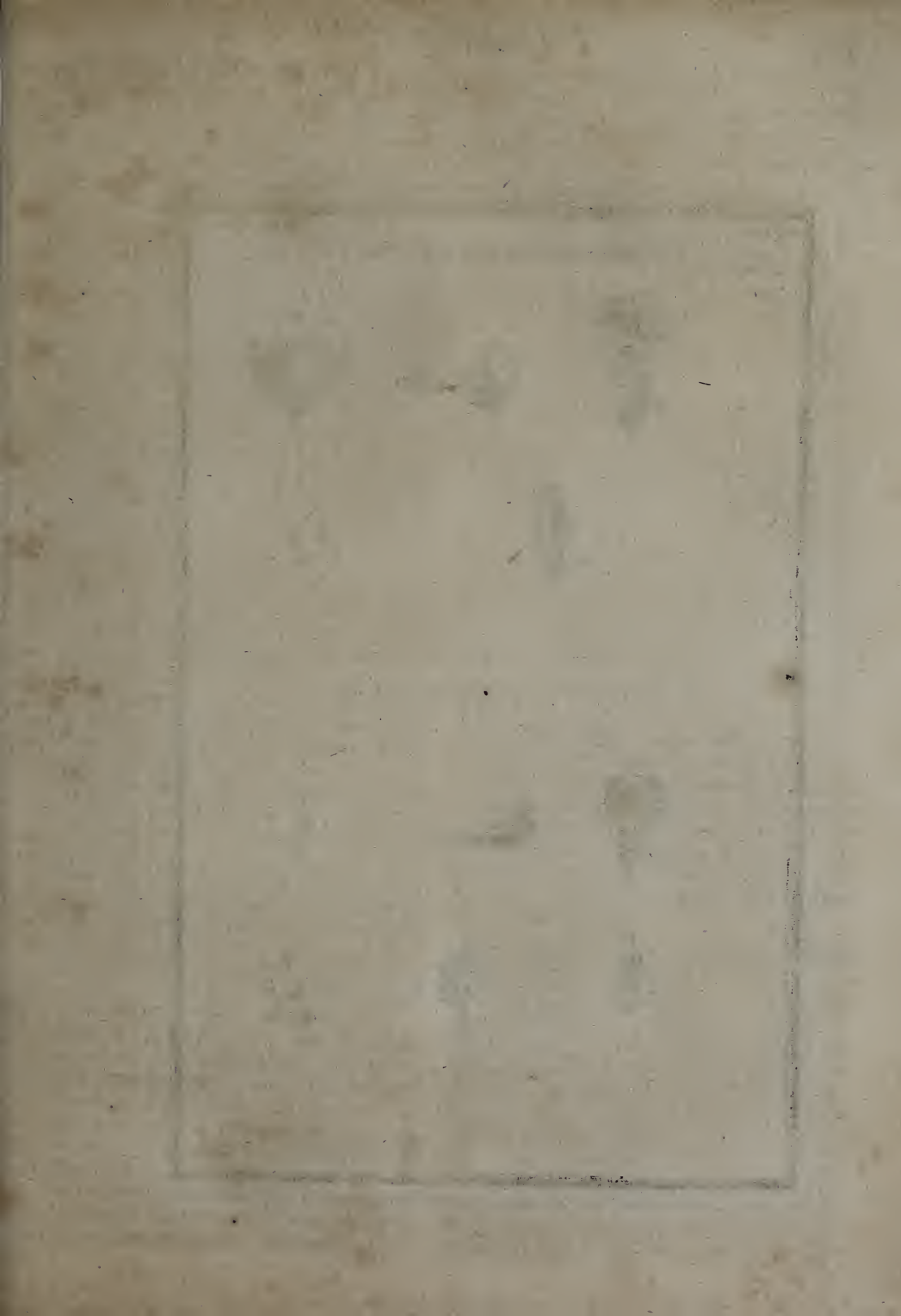
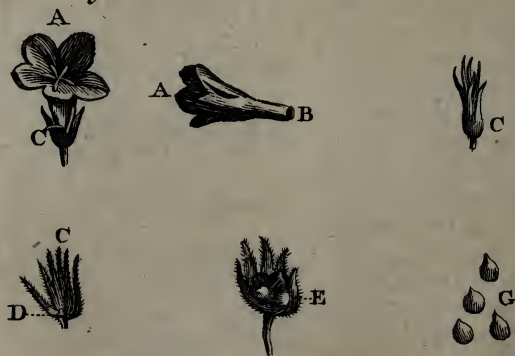


Fig. 1. Pulmonaria. Lungwort.



Fig. 2. Lithospermum. Gromil, or Gromwell.



ple Spots, and adorned with many Leaves irregularly disposed, shorter and narrower, but no less hairy than those that stand lower next to the Ground: The Top of the Stalk divides into many little short Branches wreathed as it were, and inflected like a Scorpion's Tail, loaded with Flowers, like those of the common sort, but of an elegant red Colour: The Seed lies and ripens in the Flower-Cup, as in the other Species, is black, and shaped like a Viper's Head: The Root is pretty long, hard, lignous, and covered with a black Rind or Bark; and sends up from its Head sometimes several Stalks, but one only for the most part: *Clusius* found it in *Hungary*, flowering in *May*, the Flowers sometimes of a deep, sometimes of a paler Red.

Sea Vipers-Bugloss of the *Stachades* Isles, with the largest Flower, *Echium maritimum, insularum Stachadum, flore maximo*: This is the *Lycopsis spatula folio, Hispanica & Sicula, of Boccone. Mus. Part 2. 84. Tab. 78.*

Annual Vipers-Bugloss leaning upon the Ground, with Flowers of a dark red Colour, *Echium procumbens, annuum, flosculis atro-rubentibus. Morison. H. R. Blef.*

Vipers-Bugloss with narrow and hairy Leaves, *Echium foliis angustis & villosis*: This is the *Anchusa angustis, villosis foliis, Alkanet with narrow hairy Leaves, of Boccone. Mus. Part 2. 89. Tab. 78.*

Vipers-Bugloss with a Rosemary Leaf, *Echium Rorismarini folio*: This is the *Lycopsis angustifolia minor, of Boccone. Mus. Part 2. 89. Tab. 78.*

Broad-leaved Vipers-Bugloss of Candy, with a Flower of a dark purple Colour, *Echium Creticum, latifolium, flore atro-purpureo.*

Oriental Vipers-Bugloss with an oblong, soft, and ash-coloured Leaf, *Echium orientale, folio oblongo, molli & cinericio.*

Oriental Vipers-Bugloss with a Mullein-Leaf, and a large Flower shaped like a Bell, *Echium orientale, verbasci folio, flore maximo, campanulato.*

Oriental Vipers-Bugloss, great and rough, with a Flower of a russet Colour, *Echium orientale, majus & asperius, flore leucophæo.*

It is called *Echium*, from the Greek word *ἔχιν*, which signifies a Viper, not only from the Shape of its Seed, but also because

it is esteemed of Efficacy to cure the Bitings of that poisonous Animal.

As to the medicinal Powers of this Plant we can deliver nothing as certain: *John Bauhin* quotes one Author, who recommends half a Drachm of the dried and powdered Root of the *Echium vulgare*, or common Vipers-Bugloss, taken in Wine or Ale, as beneficial in an Epilepsy.

TABLE XLIV. Fig. 1.

GENUS V.

Pulmonaria, Lung-wort,

IS a Plant with a Flower of one single Leaf A, shaped like a Funnel, whose upper part, which is cut into several Segments, bears some resemblance of a Bason: From its fistulous Flower-Cup CE, which is for the most part pentagonal, and divided into five Parts, the pointal D rises, fixed like a Nail in the Bottom of the Flower B, and encompassed with four Embryo's; which afterwards change into so many Seeds F, that ripen in the enlarged Flower-Cup E.

Its Species are,

Italian Lung-wort approaching to the Bugloss, Pulmonaria Italicorum, ad Buglossum accedens. F. B. 3: 595. Symphytum maculosum, sive pulmonaria latifolia, C. B. Pin. 259. Pulmonaria vulgaris maculoso folio Clus. Hist. CLXIX. Sage of Jerusalem or Bechlehem, Jerusalem Cowslips.

The Root is white and fibrous, clammy to the Taste: The Stalk is angular, of a purplish Colour, and hairy: It has some Leaves which rise immediately from the Root, and lie thick spread upon the Ground; others grow upon the Stalk without any Footstalk, at unequal Distances; they are oblong, an Inch broad, having one middle Nerve, running lengthways, end in a sharp Point, and are covered with a *Lanugo* or Down upon both Sides and round the Edges: When the Spring is advanced, the Leaves grow remarkably large, especially the lowermost, which are then

above a Hand-breadth broad, and a Hand-breadth and a half in length, and hairy, the first tender Down stiffening into a rough Covering: The Flowers stand in knots at the Top of the Stalk upon Footstalks half an Inch long, they rise out of oblong, chanelled, and hairy Flower-Cups, are sometimes of a purplish, sometimes of a violet Colour, sometimes they have both these Colours mixed upon one and the same Branch, and have their Brims cut into five Segments: The Seeds are like those of Bugloss.

The Leaves are sometimes found marked with white Spots, sometimes without Spots: The Flowers are generally of a bluish Red, rarely white: It is cultivated in most Gardens.

Common broad-leaved Lung-wort, with white Flowers, *Pulmonaria vulgaris, latifolia, flore albo.*

Mountain Lung-wort, with soft roundish Leaves, and a blue Flower, *Pulmonaria Alpina, foliis mollibus, subrotundis, flore caeruleo: Symphytum sive Pulmonaria Alpina, foliis mollibus, subrotundis, flore caeruleo. H. R. Par.*

Lung-wort with unspotted Leaves, *Pulmonaria folio non maculoso. Clus. Hist. CLXIX.*

Lung-wort with Vipers-Bugloss Leaves, *Pulmonaria foliis Echii. Lob. Icon. 586. Pulmonaria angustifolia, rubente caeruleo flore, narrow-leaved Lung-wort with a reddish blue Flower. C. B. Pin. 260.*

Lung-wort with Vipers-Bugloss Leaves, and a white Flower, *Pulmonaria foliis Echii, flore albo.*

Lung-wort with a red Flower, and Vipers-Bugloss Leaves, *Pulmonaria rubro flore, foliis Echii. J. B. 3. 297. Pulmonaria IV, rubro flore. Clus. the fourth Lung-wort with a red Flower of Clusius. Hist. CLXX.*

Narrow-leaved Lung-wort with a blue Flower, *Pulmonaria angustifolia, caeruleo flore. J. B. 3. 596. Symphytum maculosum, sive Pulmonaria angustifolia, caerulea. C. B. Pin. 260. Pulmonaria angustifolia. Tabern. Icon. 557.*

It has narrow Leaves covered with a Nap or Down, not unlike to those of wild Bugloss or common Vipers-Bugloss, or to those of Alkanet, but softer, nor so rough and hairy, without Footstalks, embracing the middle of the Stalk, which, as it en-

creases in growth, becomes cornered and hairy, somewhat inclining to a Purple, and about a Foot high: Upon its Top stand many little pentagonal Flower-Cups, divided into five purplish Jags and somewhat hairy, which contain oblong concave Flowers, in Form like to those of the garden Bugloss, or to those of the common Lung-wort, having their Brims cut into five almost orbicular Segments, which before they are blown appear of a reddish purple Colour, but when explained and disclosed, of so elegant and beautiful a Blue, that they rival, if not surpass those of the spring Gentianel, but they are without Smell: When ripe, they drop off entire, and leave the empty Flower-Cup with the Pointal and Rudiments of the four subsequent Seeds, which when ripe, are of a black Colour, like to the Seeds of Bugloss or Vipers-Bugloss; at the Foot of the Stalk grow afterwards other narrow hairy Leaves, a Hand-breadth or more in length, broader and softer than those of the Vipers-Bugloss or the Alkanet; from among which, tho' dry, the following spring the Stalk shoots, loaded with its beautiful Flowers: The Root is furnished with thick and fleshy Fibres, whitish at first, but afterwards, through length of Time, blackish without, and sweet to the Taste: It grows in plenty in *Pannonia*, and the lower *Austria* in mountainous Places and cut Woods, and continues long in flower: It rises in the beginning of the Spring, and shoots out its Flowers almost before the Leaves.

Italian Mountain Lung-wort with a narrow Leaf, Pulmonaria Alpina, angusto folio, Italica. Boecon. Mus. Part 2. 110. Pulmonaria Alpina, angusto folio ejusdem. Tab. 86.

Mild Lung-wort, with a Smell like to that of the Strawberry, *Pulmonaria mitis, fragaria odore. Bocc. Mus. Part 2. 148. Pulmonaria fragaria odore ejusdem. Tab. 105.*

Annual Lung-wort of Candy, with a blistered Flower-Cup, *Pulmonaria Cretica, annua, calice vesicario: Borragine silvestre, annua di Candia, Zan. Hist. 48.*

Lung-wort with a roundish, green and unspotted Leaf, *Pulmonaria viridi, subrotundo, non maculato folio. Boecon. Mus. Part 2. 135. Pulmonaria viridis, non maculata, subrotunda ejusdem. Tab. 95.*

Lung

Lung-wort of the Island Scio, with a Vipers-Bugloss Leaf full of wart-like Excrecences, a bladdered Flower-Cup, and a white Flower, *Pulmonaria Chia, Echii folio verrucoso, calice vesicario, flore albo.*

Lung-wort of Lesbos, with a Vipers-Bugloss Leaf, having wart-like Excrecences, a swollen Flower-Cup, and a blue Flower, *Pulmonaria Lesbia, Echii folio verrucoso, calice vesicario, flore caeruleo.*

Oriental Lung-wort, with a swollen or bladder-like Flower-Cup, Vipers-Bugloss Leaves, and a purple Flower shaped like a Funnel, *Pulmonaria orientalis, calice vesicario, Echii foliis, flore purpureo, infundibuliformi.*

Oriental Lung-wort, with a swollen Husk, Vipers-Bugloss Leaves, and a white Flower shaped like a Funnel, *Pulmonaria orientalis, calice vesicario, foliis Echii, flore albo, infundibuliformi.*

The Lung-wort is distinguished from the other Plants of the same Tribe or Family, by the Form or Shape of its Flower-Cup: At what Time its Species are without Flower and Fruit, they are easily known by their oblong or roundish Leaves, not infected, soft or rough, and for the most Part spotted like the Lungs when diseased or distempered, from which resemblance this Plant derived its Name.

It is the first Species which is of common Use: It has a salt and clammy Taste, and gives a considerable red Dye to the blue Paper: It is chiefly used in Distempers incident to the Lungs, when the Spittle is salt or purulent, and in spitting of Blood: As a Vulnerary it partakes of the Virtues of the Comfrey: The Leaves may be used either in Pisans or Broths; some instead of the Lung-wort or Sage of Jerusalem, make use of the *Muscus Pulmonarius*, or Oak-Lungs; of which we shall treat in its proper Place.

TABLE XLIV. Fig. 2.

GENUS VI.

Lithospermum, Gromil,

into several Segments: From its Flower-Cup C, divided to the very Base, the pointal Drises, which is fixed like a Nail in the Bottom of the Flower B, and encompassed with four Embryo's, which afterwards change into so many roundish, hard, polished, and shining Seeds G, that ripen in the enlarg'd Flower-Cup E.

Its Species are,

The greater upright Gromil, *Lithospermum majus, erectum. C. B. Pin. 258. Lithospermum sive milium solis. J. B. 3. 590. Lithospermum minus. Dod. Pempt. 83. Gromil or Gromwel.*

The Root is about an Inch thick, woody, perennial, and somewhat fibrous: It sends up several Stalks two or three Foot high, upright, stiff, round, solid, rough and branched, which are adorned with long, hairy, narrow and sharp-pointed Leaves without Footstalks: The Leaves that grow upon the Tops of the Stalks and little Branches are broader and shorter, in proportion to their Bigness, and of a deeper Green: The Flowers rise upon short Footstalks at the Tops of the Stalks and little Branches, they incline from a grassy to a white Colour, and have their Brims cut into five blunt Segments: The Flower-Cup is hairy, and deeply divided into five narrow sharp-pointed Segments: Each Flower is succeeded by four hard, shining and ash-coloured Seeds; two or three whereof for the most part only arrive to maturity: It grows commonly in several places of our Country in barren and untill'd Grounds, and by the Way-sides: It flowers in May and June, and its little flowery Twigs before the Flowers are blown, wreath and turn like a Scorpion's Tail.

The lesser, broad-leaved, creeping Gromil, *Lithospermum minus, repens, latifolium. C. B. Pin. 258.* This is the *Lithospermum majus Dodonei, flore purpureo, semine Anchusa,* or the greater Gromil of Dodoneus, with a purple Flower, and Seeds like those of the Alkanet, according to J. B. 3. 572. and the *Lithospermum majus* of Dodon. Pempt. 83.

This Species has many creeping Stalks, a Foot, or a Foot and a half in length, slender, of a blackish Colour, and hairy, which

IS a Plant with a Flower of one single Leaf A, shaped like a Funnel, and cut

as they creep along, take Root in the Ground by the help of some Fibres which they emit; they are covered with rough hairy Leaves, from a deep Green inclining to a blackish Colour, about two Inches long, half an Inch broad, and sharp-pointed: The Flowers stand thick at the Extremities of the little Branches, and are of a violet Colour: The Seed resembles that of the Alkanet or Vipers-Bugloss, being whitish and wrinkled: The Root is long, thick, lignous, wreathed, and of a black Colour: The Stalk that sustains the Flowers is erected, and the Leaves which grow thereupon are longer and of a paler green Colour: It is found upon a certain Hill near Denbigh in Wales, and in Somersetshire, not far from Taunton.

The lesser Gromil of the tilled Grounds, *Lithospermum arvense minus*: *Echium scorpioides, arvense*. C. B. Pin. 254. *Echium scorpioides, solissequum, flore minore*. J. B. 3. 589. Mouse-Ear Scorpion-Grass.

The Root is black and fibrous: The Stalks are angular, hairy, sometimes erected, sometimes reclined upon the Ground, about a Foot long, and thick as a Stalk of Corn: The Leaves are an Inch and a half or two Inches long, half an Inch broad, like to those of the Mouse-Ear, hairy, not very sharp-pointed, and grow upon the Stalks in an alternate Order without Footstalks: The Flowers are disposed in Spikes upon the Tops of the Stalks and little Branches, which Spikes, before the Flowers blow and disclose, wreath and wind themselves like a Scorpion's Tail, from whence the Plant had the Name of *Scorpioides*: The Flowers stand upon Footstalks half an Inch long, when they first blow they appear of a purplish Colour, but afterwards change to a blue, and have a yellow Spot or Eye in the Middle: It is described by Parkinson under the Title of *Myosotis Scorpioides hirsuta*; and by Gerard, under the Title of *Scorpioides arvensis hirsuta*: Caspar Bauhin has confounded this Plant with the *Heliotropium minus* III of *Tabernemontanus*, which ought to be referred to the *Cynoglossum minus*. Pin. This Species last described is very well represented by *Tabernemontanus*, under the Title of *Auricula muris caerulea*, blue Mouse-

Ear. Icon. 197. It grows in the tilled Grounds, especially such as are more barren, and have lain fallow for some Time, and flowers almost throughout the whole Summer.

The lesser field Gromil, with yellow, or yellow-blue Flowers, *Lithospermum arvense minus, floribus luteis vel luteo-caeruleis*.

The Stems or Stalks of this Species, says Tournefort, appeared to me more angular or cornered than those of the preceding, the Leaves of a Colour not so whitish, the Flowers smaller, and yellow, disposed after the same manner in Spikes; but we find likewise, says he, upon the same Stalks, some that are of a bluish Colour, and others partly blue, partly yellow: Perhaps Caspar Bauhin has mentioned that which bears yellow Flowers under the Name of *Echium Scorpioides, minus, flosculis luteis*. Prodom. 119. Tourn. Hist. des Plant. des environs de Paris. Herborif. 2. It grows in dry and sandy Pasturages; Mr. Ray says he has found it in plenty in Coney-Burrows.

The lesser marsh Gromil, with a blue Flower, *Lithospermum palustre, minus, flore caeruleo*: *Echium Scorpioides, palustre*. C. B. Pin. 254. *Echium Scorpioides, solissequum, flore majore, caeruleo*. J. B. 3. 589. Water-Scorpion-grass.

By the means of many slender Fibres, whitish at first, but afterwards turning of a blackish Colour, which shoot from the Joints into the slimy Soil, it roots it self: The Stalks are round, channelled, solid, a Foot and a half, or more, in length, rough to the Touch, and of a reddish Colour in places exposed to the Sun; they are adorned with long, narrow Leaves that have no Footstalks, irregularly disposed, and which are covered with Hairs so short that they seem altogether smooth; out of their Bosoms, towards the Tops of the Stalks, many little Branches shoot: The Flowers are of a blue Colour, and have a yellow Spot or Eye in the Middle or Centre; they stand at the Tops of the Stalks and little Branches upon Footstalks half an Inch or an Inch long, have their Brims cut into five roundish Segments, and grow in Spikes, which, before the Flowers blow, wreath and wind like a Scorpion's Tail: Each Flower

Flower is succeeded by four Seeds: It grows near to Rivulets and in marshy Ditches; and flowers about the end of May.

John Bauhin, says Mr. Tournefort had no reason to doubt whether *Tragus* mentioned this Species among those of the *Auricula muris minor*; it is more probable that he spoke of it among those of the *Euphrasia*: But considering how he explains himself upon the *Euphrasia carulea*, it appears that that which grows in marshy Places, is only a Variety of that Species which I have called *Lithospermum arvense minus*: Caspar Bauhin imagined the Plant of which we now speak to be the *Auricula muris* of *Matthiolum*: But it is plain, from the Figure of *Matthiolum*, that that Author formed it upon the Description of *Dioscorides*, as he did that of the *Heliotropium minus*, as John Bauhin has well observed: There are many Figures in the Works of *Matthiolum*, which are only imaginary: It was esteemed a Point of Honour in his Time not to be ignorant of any Plant which *Dioscorides* had mentioned or spoke of; and *Matthiolum* made no scruple to cause them to be engraved simply from the Ideas which he formed to himself upon the Descriptions of *Dioscorides*. *Tourn. Hist. &c.*

The lesser marsh Gromil with a white Flower, *Lithospermum palustre, minus, flore albo*: *Echium scorpioides, palustre, flore niveo*. C. B. Pin. 254. *Echium scorpioides, solisquam, flore majore, albo*. J. B. 3. 589. Water Scorpion-grass with a white Flower.

The smallest or least woolly mountain Gromil, *Lithospermum Alpinum, tomentosum, minimum*: *Echium scorpioides, Alpinum, nanum, supinum, tomentosum ejusdem*. Tab. 207. Creeping, broad-leaved, oriental Gromil, with a large Flower, *Lithospermum orientale, latifolium, repens, flore magno*.

The lesser Gromil of the Isle Delos, growing in the tilled Grounds, with Stalks lying flat upon the Ground, and the smallest white Flower, *Lithospermum Delium, arvense, minus, supinum, flore minimo, albo*.

Oriental Gromil with a Stock-Gillyflower Leaf, and a small blue Flower, *Li-*

thospermum orientale, Leucii folio, flore ceruleo, parvo.

Broad-leaved oriental Gromil, with a Flower of an agreeable red Colour, *Lithospermum orientale, latifolium, flore suaverrubente*.

The following Species are to be excluded from this Genus, for they bear not the Marks or Characteristicks of the *Lithospermum* or Gromil.

Lithospermum Arundinarium, forte Dioscoridis & Plinii. C. B. Pin. 258. Our Author reckons it a Species of the *Lachryma Job* or Job's Tear: *Lithospermum arvense, radice rubra*. C. B. Pin. 258. It is a Species of the Bugloss.

Lithospermum linaria folio, Germanicum. C. B. Pin. 259. It is ranked under the *Thymelea* or Spurge flax: *Lithospermum linaria folio, Monspeliacum*. C. B. Pin. 259. It is a Species of the *Linum* or Flax.

The Name of *Lithospermum* is borrowed from the Nature of the Seed, and is a Compound of the two Greek words λίθος, which signifies a Stone, and σπέρμα, Seed, importing in our Language, a stony Seed.

The first Species is what is commonly used: This Plant gives little or no tincture of red to the blue Paper; it is astringent and glutinous; the Fruit reddens it a little: The Leaves of Gromil chymically analyzed yield no concreted volatile Salt; but an urinous Spirit much charged therewith, and a large Quantity of Oil and Earth: What is obtained from the Grains or Seeds is all alcalious; they afford too a volatile concreted Salt, much Earth and Oil: The Seeds are powerfully diuretic, and may be usefully administered in the Stone and Gravel, and in the end of a Gonorrhæa by way of Emulsion, mixed with other Ingredients: *Matthiolum* says, he has often with great Success prescribed ʒii of the Seeds to be taken in Womens Milk, to Women in hard Labour.

Gromil Seeds are used in the blessed laxative Electuary, in the opening hepatick Decoction, and in the antinephritick Syrup of Charras.

TABLE XLV.

GENUS VII.

Symphytum, Comfrey,

IS a Plant with a Flower of one single Leaf A, shaped like a Funnel, oblong, and in some manner resembling the Bell-shape. Out of the Flower-Cup CD deeply cut to the very Base, the Pointal E rises, fixed like a Nail in the back Part of the Flower B, and encompassed with four Embryo's, which afterwards change into so many Seeds G, in Form imitating the Shape of a Viper's Head H, and ripening in the Flower-Cup, it self much enlarged F.

Its Species are,

The greater Comfrey with a purple Flower, *Symphytum consolida major, flore purpureo, quæ mas* C. B. Pin. 259. *Symphytum magnum* J. B. 3. 593. Dod. Pempt. 134.

It has thick, spriggy, and pulpy Roots, black without and white within, viscous and glutinous: The Stalks are about two Foot high, hairy, rough, and winged: The Leaves resemble those of *Helenium* or *Elecampane*, are rough, hairy, sharp-pointed, two Spans long, and an Hand-breadth broad: The Flowers grow upon the Tops of the Branches and Stalks, which before the Flowers blow, wind and wreath like a Scorpion's Tail, they are single-leaved, of a whitish Colour, inclining to a Purple, fistulous, about a Quarter of an Inch long, having their Brims cut into five Segments, and a hairy Flower-Cup deeply cut into an equal Number of Divisions: The Pointal rises from the Centre of the Cup, and remains after the Flower drops, encompassed with four Seeds, shaped like a Viper's Head, and of a blackish Colour: It grows in Meadows and by the sides of Brooks; and flowers in May.

The greater Comfrey with a Flower of a purple-blue Colour, *Symphytum consolida major, flore purpureo-caruleo* C. B. Pin. 259.

The greater Comfrey with a Flower of a white or pale yellow Colour, called the

female Comfrey, *Symphytum consolida major, flore albo vel pallide luteo, quæ femina* C. B. Pin. 259.

The greater Comfrey with a yellow Flower, *Symphytum consolida major, flore luteo* C. B. Pin. 259.

The greater Comfrey with a Flower of various Colours, *Symphytum consolida major, flore variegato* H. L. Bat.

The greater Comfrey with a tuberous Root, *Symphytum majus, radice tuberosa* C. B. Pin. 259. *Symphytum tuberosum* J. B. 3. 594. Dod. Pempt. 134.

The Stalk of this Species is angular, and in some measure pentagonal, seldom exceeding a Foot in height, full of Juice, having fewer Leaves than the greater Comfrey, and those smaller, more tender, not so rough, and insipid to the Taste: The Flowers grow upon the Tops of the Branches; they are of a pale Colour and oblong, in form like to those of the greater Comfrey, hollow, without smell, and cut into five Segments; they contain within five Stamina or Threads that join as it were and Form an Umbo or Boss, with a Pointal stretching out in the Middle: The Flower-Cup are like those of the greater Comfrey, and enclose Seeds like those of the *Echium* or *Vipers-Bugloss*: The Root is long, branchy, tender and brittle, about the thickness of the little Finger, has many tuberous or knobby Excrescences, and is furnished with some small Fibres: The Foot-stalks, Cups, the angular Stalks, and Leaves are hairy: It grows in all the Woods of *Pannonia* and *Austria*, in shady Places, especially under shrubs.

The lesser Comfrey with a tuberous Root, *Symphytum minus, tuberosa radice* C. B. Pin. 259. *Symphytum tuberosum, minus* Clus., Hist. CLXVI.

Comfrey with a larger *Vipers-Bugloss* Leaf, a red Root, and a yellow Flower, *Symphytum Echii folio ampliore, radice rubra, flore luteo*: This is the *Anchusa lutea major*, or the greater yellow Alkanet of C. B. Pin. 259. and the *Anchusa lutea*, or yellow Alkanet of J. B. 3. 583. and of *Lobel.* Icon. 578.

It has a Root abounding with a red or bloody Juice, like the *Onochiles*: The Stalk is hairy, about a Foot high, or more, fleshy.

Symphytum. Comfrey —



Slenderer than that of the *Onochiles*: The Leaves which grow upon the Branches are shorter, but equally broad: The Flowers stand as it were in Spikes at the Tops of the Stalks, they are hollow or fistulous, like those of the greater Comfrey, but smaller, and of a yellow Colour: The Seed is bright and polished, of an ash Colour, marked with little black Spots, but triangular and sharp-pointed, shaped almost like the Beak of a little Bird: Mr. Ray says he found it in some barren Grounds not far from Lyons, upon the Road to Geneva.

Comfrey with a larger Vipers-Bugloss Leaf, a red Root, and a whitish Flower, *Symphytum Echii folio ampliore, radice rubra, flore exalbido*: This is the *Anchusa flore albo aut pallido Clusii*, Alkanet with a white or pale-coloured Flower of *Clusius*, according to *J. B.* 3. 583. and the *Anchusa exalbido flore Clus. Hist.* CLXV.

It has many Leaves which shoot immediately from the Root about a Hand-breadth long, very narrow, and covered with a prickly *Lanugo* or Down; from among these, in the second Year (for the first it sends up no Stalk) the Stalk rises, a Foot, sometimes a Foot and a half in height, somewhat thick, firm, hairy, and branched; the Leaves which adorn it are much shorter than the others, and hairy: The Flowers rise at the Extremities of the Branches, out of hairy and rough Flower-Cups; they in some manner resemble those of the greater Comfrey, are of a white Colour, or from a white incline to a pale, and are cut into five Segments: When they drop the Seed appears in the Flower-Cups shaped like a Viper's Head: The Root is about the thickness of the little Finger, and covered with a black Bark or Rind, which being peeled off, it appears red, and dyes the Fingers with a most elegant and beautiful Scarlet: It is sweet and insipid: It grows in the dry and parched Grounds of *Pannonia* and *Austria*.

Comfrey with a narrow Vipers-Bugloss Leaf, a red Root, and a yellow Flower, *Symphytum Echii folio angustiore, radice rubra, flore luteo*: *Anchusa lutea minor*, the lesser yellow Alkanet of *C. B. Pin.* 255. *Anchusa Echioides, lutea, Cerinthoides, montana Colum. Part.* I. 183.

Comfrey of Candy, with a narrow Vipers-Bugloss Leaf, napped with a long Down, and a yellow Flower, *Symphytum Creticum, Echii folio angustiore, longissimis villis horrido, flore croceo*: Is this the *Echium Creticum* of *Prosper Alpinus*, described by him in his *Exoticks*, p. 129? He says it bears yellow Flowers, like to those of the Alkanet, but they are wretchedly expressed and represented by the Engraver.

Oriental Comfrey with a large Vipers-Bugloss Leaf, napped with a very long Down, and a yellow Flower, *Symphytum orientale, Echii folio ampliore, longissimis villis horrido, flore croceo*.

Oriental Comfrey with a Vipers-Bugloss Leaf, and a very slender white Flower, *Symphytum orientale, Echii folio, flore albo, tenuissimo*.

Oriental Comfrey with a small Vipers-Bugloss Leaf, and a Flower sometimes of a white, sometimes of a yellowish Colour, *Symphytum orientale, Echii folio minori, flore nunc albo nunc flavescente*.

Oriental Comfrey with a silver-coloured Olive-leaf, and a yellowish Flower, *Symphytum orientale, olea folio argenteo, flore flavescente*.

Oriental Comfrey with an ash-coloured and hairy Olive-Leaf, *Symphytum orientale, olea folio cinereo & hirsuto*.

Narrow-leaved oriental Comfrey with a blue Flower, *Symphytum orientale, angustifolium, flore caeruleo*.

Oriental Comfrey with a rough roundish Leaf, and a blue Flower, *Symphytum orientale, folio subrotundo, aspero, flore caeruleo*.

Oriental Comfrey with a rough roundish Leaf, and a blue Flower of a most fragrant Odour, *Symphytum orientale, folio subrotundo, aspero, flore caeruleo, odoratissimo*.

We must exclude from this Genus the *Symphytum minus, Boraginis facie* *C. B. Pin.* 259. It is a Species of the *Omphalodes*.

It borrowed the Name of *Symphytum* ἀπὸ τοῦ συμφύειν, which signifies to grow together; because, as *Dioscorides* relates, its Roots, if boiled with flesh, unite and consolidate the separate Pieces.

The Leaves of the first Species or great Comfrey are insipid, glutinous, and give a faint Tincture of Red to the blue Paper: The Roots dye it deeper, and abound with

a clammy Juice: This Plant contains a Salt very like to the Salt of Coral, dissolved in a glutinous Phlegm, in which there is some Sulphur, but very little of Salt-Armoniac; for upon a chymical Analysis the Comfrey yields many acid Liquors, much Earth, very little Sulphur, and no concentered volatile Salt, but a small quantity of an urinous Spirit, and a very moderate quantity of fixed Salt; so that its Powers seem principally to depend upon its slimy Mucilage, which the Fire destroys: *Dioscorides* assures us that its Roots are vulnerary; that bruised together with the Leaves of Ground-fel or *Simfon*, and applied, they mitigate the Pain and Inflammation of the Piles; that their Juice is useful in a Spitting of Blood, and for the Cure of Ruptures.

The Moderns deservedly reckon it among the chief of the vulnerary Plants; and they all agree that its Roots incrassate or thicken, and blunt or sheath the acrimonious Particles of the Humours: They are used in a Loss or Flux of Blood, occasioned by sharp Salts, which render it too fluid; and in a Catarrh or Defluxion upon the Breast or Lungs, caused by Salt and corrosive Serofities.

The Roots of the great Comfrey bruised and applied by way of Cataplasim to a prick'd Tendon, or to the part most sensibly affected with goutish Pains, give great Ease and Relief, and in the same manner stop running and eating Ulcers, Gangrenes, &c. *Simon Paulli* advises not to use the Roots of Comfrey singly for the Cure of goutish Pains, least they should too powerfully strike the Humour back, and throw it inwards: He recommends the following Cataplasim, which he learn'd from *Sennerius*, as an incomparable Remedy: Take three Ounces of the Roots of the great Comfrey, two Ounces of Marsh-mallow Roots, a Handful of Southernwood Leaves, two Handfuls of St. John's-wort, three Handfuls of Camomil Flowers, four Handfuls of Elder Flowers, two Ounces of Pegreese Seeds, three Ounces of Lint Seed; boil all these Ingredients in Elder-Water, and make a Cataplasim: But this Remedy is too much compounded. I usually mix, says *Tournefort*, some Drops of fetid Oil with the Comfrey Roots well bruised, and to apply it to the Part affected.

We find among the Observations of *Hieronymus Rensuerus*, that a Charlatan cured a certain Person of a malignant Ulcer, pronounced to be a Cancer by the Surgeons, and left by them as incurable, by applying twice a Day the Root of Comfrey bruised, having first peeled of the external blackish Bark or Rind; but the Cancer was not of above eight or ten Weeks standing.

TABLE XLVI. Fig. 1.

GENUS VIII.

Heliotropium, Turnsole,

IS a Plant with a Flower of one single Leaf, shaped like a Funnel, having its Centre wrinkled and folded, so as to show like a Star, and its Brim cut into ten Segments alternately unequal: Out of the Flower-Cup C the Pointal D rises, which is fixed like a Nail in the bottom Part of the Flower B, and encompassed with four Embryo's, that change into so many Seeds EF, angular upon the one Side, and gibbous upon the other, which ripen in the Flower-Cup.

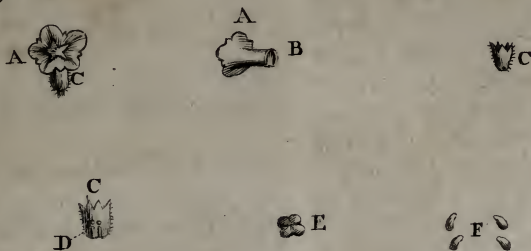
Its Species are,

The greater Turnsole of *Dioscorides*, *Heliotropium majus* *Dioscoridi* C. B. Pin. 253. *Heliotropium majus*, flore albo, the greater Turnsole with a white Flower. *J. B.* 3. 604. *Heliotropium* *Dod. Pempt.* 70. The greater Heliotrope or Turnsole.

This Plant rises to the Height of a Span, sometimes more, sometimes less, according to the Nature of the Soil: The Root is single and woody: The Stalk is fungous and full of Pith, from a green inclining to a hoary Colour, woolly and branched: The Leaves shoot out at each Joint of the Stalk and Branches, they are like to those of Basil, oblong, nervous, hoary and hairy: The Flowers are small and of a white Colour, surrounded with little woolly Leaves; the Spike upon which they stand wreaths its self like a Scorpion's Tail before they open: They are succeeded by four trian-

Heliotropium. Turnsole.

Fig. 1.



Cynoglossum. Hounds-Tongue.

Fig. 2.



triangular ash-coloured Seeds: It grows in several Parts of France, Italy, and Sicily.

The greater Turnsole of Sicily, with a large scented Flower, *Heliotropium Siculum majus*, flore amplo, odorato Boccon. Rarior. Plant. 90.

In its Stalks and Leaves it very much resembles the common sort, but differs in its Flowers, which are large and scented, like those of Melilot: It grows near to Catana, in rough places, and among the Corn, mixed with the common sort.

The greater autumnal Turnsole, smelling like Jasmin, *Heliotropium majus autumnale*, Jasmini odore.

Heliotropium medium, strigosus Italicum Barrelier. Icon.

The smaller creeping Turnsole, *Heliotropium minus*, supinum C. B. Pin. 253. *Heliotropium minus quorundam sive supinum* J. B. 3. 605. *Heliotropium supinum*. Dod. Pempt. 70.

It is very like the first, but smaller, bears slenderer Stalks, much branched, somewhat woolly, and leaning upon the Ground: The Leaves in Taste, Colour, and Form, resemble those of the greater Turnsole, but are smaller: The Flowers are white, and stand upon Spikes, which wreath and wind like a Scorpion's Tail before they blow: They are succeeded, not by four Seeds joined together, as in the first, but by one for the most Part, sometimes two, greater and more oblong, of a dark brownish Colour, and wrapped up within a Membrane or Husk: The Root is small, of a blackish Colour without, and dies in the Winter.

Blue, American Turnsole, with Clary Leaves, *Heliotropium Americanum, caruleum*, foliis Hormini. A. R. Par. 83. *Aguara quinba* Pison. Edit. 1658. 229.

Blue, American Turnsole, with narrower Clary Leaves, *Heliotropium Americanum, caruleum*, foliis Hormini angustioribus. H. Lugd. Bat. Jacua. Acanga Pison. Edit. 1658. 229.

Turnsole of Curacao, with a Leaf like to that of Venus-Lawn, *Heliotropium Curassavicum*, foliis lini umbilicati. Prod. Parad. Bat. *Heliotropium lini umbilicati facie* Paradis. Bat.

Tree Turnsole, growing upon the Sea-Coasts, with Leaves like those of the American Cudweed, *Heliotropium arboreum, maritimum*, tomentosum, Gnaphalii Americani

foliis, of Dr. Sloane, in his Catalogue of the Plants of Jamaica 93. *Heliotropium Gnaphaloides, littoreum, frutescens, Americanum*, Sea-Lavender *Barbadiensibus dictum*. Pluknet. Phytog. Tab. 193. Fig. 5.

The greater hairy Turnsole, with a large Flower, without smell, *Heliotropium majus, villosum*, flore magno, inodoro.

Turnsole creeping upon the Ground, with the smallest Flower, and a large Seed, *Heliotropium humi fusum, flore minimo, semine magno*: This is the *Ἡλιότροπον μικρον*, of Dioscorides, Lib. 4. cap. 149.

We must exclude from this Genus the *Heliotropium Tricoccon*, and rank it under the *Ricinoides*.

The Name is derived from the two Greek words *ἥλιος*, which signifies the Sun, and *τρέπω*, to turn; so called, not that it follows the diurnal Motion of the Sun, as the Ancients vainly imagined, but as *Dodonæus* says, because it begins to flower about the Summer solstice, when the Sun being at the remotest Distance from the Equinoctial, again turns and bends its Course towards it.

There are two Species of the Turnsole used in the Shops, the *Heliotropium majus*. — *majus Dioscoridis* C. B. — *majus flore albo* J. B. or the greater Turnsole: And the *Heliotropium minus supinum* C. B. *Heliotropium minus quorundam sive supinum* J. B. or the small Turnsole: They are both possessed of the same Virtues.

The Leaves of the greater Turnsole are extremely bitter, and give but a small Tincture of red to the blue Paper; which gives us to understand that their Salt differs nothing from the Salt of Earth, but in this that the Salt-Armoniac lies more disengaged in them than the other Principles, and mixed with a large Quantity of fetid Oil and Earth.

Dioscorides, lib. 4. cap. 185. says, That the Decoction of the Leaves of the greater Turnsole evacuates by Stool, bilious and phlegmatic Humours: That boiled in Wine, and taken inwardly, and at the same Time outwardly applied to the Part, it is useful against the Stings of Scorpions: It is reported, says he, that four Grains of the Seed taken before the Paroxysm of a Quartan-Agüe, carries it off and cures it, and three

three a Tertian: The Leaves bruised and applied to the Parts pained with the Gout, to those that have been disjointed, and upon being set, are still affected with Pain, and in the Disease of Children, called the *Syriasis*, give great Ease and Relief: The Juice of the Leaves, and the Seeds rubbed upon Warts, Wens, or such like Excrescences in whatever Part of the Body, eats and consumes them by little and little, and makes them fall off: The Seeds provoke the monthly Courses, and cause an easy and speedy Delivery.

The Decoction of the Leaves with Cummin, says *Matthiolus*, breaks and expels the Stone, and kills the Worms generated in the Intestines.

TABLE XLVI. Fig. 2.

GENUS IX.

Cynoglossum, Hounds-Tongue,

IS a Plant with a Flower of one single Leaf A, shaped like a Funnel, and cut into several Segments, out of whose Flower-Cup C, the pointal D rises, fixed like a Nail in the bottom Part of the Flower B, which changes afterwards into a Fruit E, composed of four Cells or Capsules H I K, rough for the most Part, and containing a flat Seed G, affixed to a pyramidal and quadrilateral Placenta F.

Its Species are,

The greater common Hounds-Tongue, *Cynoglossum majus, vulgare* C. B. Pin. 257. *Cynoglossum vulgare*. J. B. 3. 598. *Cynoglossum* Dod. Pempt. 54.

The Root is black without, white within, thick, resembling a small Raddish, of a strong heavy Smell, and an insipid sweetish Taste: The Stalks are about three Foot high, branched, hollow when old, and very woolly: The Leaves in the first Year are long and somewhat broad, but in the second when it shoots its Stalk, narrow, sharp-pointed, hoary, soft, woolly, and of a strong unpleasant Smell: The Flowers are like those of the Bugloss of the Shops,

of a fordid red Colour, composed of one single Leaf, divided into five Segments; they stand in a hairy Flower-Cup cut into five Parts: They are succeeded by a Fruit composed of four Capsules, with one single Cavity, somewhat flat and rough, cleaving fast to any Garment, and containing one Seed only: The Leaves grow alternately upon the Stalk, without Footstalks: It flowers in June, and grows commonly in moist places of our Country in waste and uncultivated Grounds, especially such as are of a fat Soil, and by the Sides of the Highways and Hedges.

The Plant which *Columna* names *Cynoglossa vulgaris*, is altogether different from this which we have described; it is distinguished, not only by its Leaves, which are whiter, and as it were covered with a silken Down, but by its Flowers, very well described by *Columna*, *Clusius*, and *Morison*: The Flower is whitish at first, says *Clusius*, streaked with some small purplish Veins, which afterwards change to a blue Colour; we must therefore refer the *Cynoglossa vulgaris* of *Columna*, and the *Cynoglossum folio molli, incano, flore caruleo, striis rubris variegato* of *Morison*. H. Reg. Bles. to the *Cynoglossum Creticum, latifolium feridum* of *Caspar Bauhin*, Pin. 257. This Species grows commonly in Provence, Languedoc, in Spain and Italy, by the Sides of the Highways, so that it is needless to seek it so far as Candy. *Tournefort Hist. des Plantes, &c.*

The greater common Hounds-Tongue with a white Flower, *Cynoglossum majus, vulgare, flore albo* C. B. Pin. 257.

The greatest Belgic Hounds-Tongue, *Cynoglossum maximum, Belgicum* C. B. Pin. 257. *Cynoglossum maximum*. Lob. Obs. 313.

It is cultivated in Gardens in Holland; in its Leaves, Flowers, and Seeds, and in all its Parts, it is twice larger than the common Sort; owing perhaps solely to the richness of the Soil.

The greatest mountain Hounds-Tongue, *Cynoglossum montanum, maximum: Cynoglossa montana, maxima, frigidarum regionum*, the greatest mountain Hounds-Tongue of the cold Climates, of *Columna*, Part 1. 168. *Descript. Icon. 175.*

It has many large, but hairy and soft Leaves, above a Foot long, and a Handbreadth

breadth broad, of a whitish green Colour, each whereof has the middle Rib or Nerve reddish, and many Veins running obliquely, and a reddish Footstalk: Those which are older lie bending upon the Ground, but the middle ones stand more upright: From among these rises a thick, hollow, chanelled, reddish, woolly, or hairy Stalk, above two Foot high, well stored on all Sides with such-like Leaves as the first, which rise immediately from the Root, but still decreasing in bigness to the Top, where it divides into four or five Branches of Flowers standing all on one side, yet forming at the first a round Head, beautiful to the Eye for the variety of Colours which distinguish it; for the Flower-Cups are green, the Flowers of a purplish Red, the Threads yellow, and the intermediate little Leaves distinguished with reddish Nerves: The Flowers are succeeded by larger Seed than in any of the former Species, four usually together, which on the upper-side are flat, circled about with a few short Prickles, by means whereof it cleaves fast to Garments: The Root is about a Foot in length, an Inch and a half thick, blackish without, and somewhat of a whitish Colour within: It grows only in cold Climates, or upon the high Appennine Mountains.

Mountain Hounds-Tongue, with a greenish Leaf, and a larger Flower, *Cynoglossum montanum, virente folio, majore flore*: *Cynoglossa media, altera, virente folio, rubro flore, montana, frigidarum regionum Column. Part 1. 176. Descript. Icon. 170.*

The Flowers of this Species are twice larger and broader than those of the common Hounds-Tongue.

Mountain Hounds-Tongue, with a green Leaf, and a smaller Flower, *Cynoglossum montanum, virente folio, minore flore*: *Cynoglossa folio virenti J. B. 3. 600.*

Hounds-Tongue with a globous Flower, *Cynoglossum flore globoso C. B. Pin. 257.* This is the *Cynoglossa media, montana, incana, angustifolia, altera, flore globoso, frigidarum regionum*, narrow-leaved hoary mountain Hounds-Tongue of *Columna. Part 1. 173.*

This Species has many soft, woolly or hoary, long and narrow Leaves, standing upright, and not lying upon the Ground;

they are half a Foot long, and an Inch broad in the Middle, but small at both ends, the middle Rib and Footstalk are both reddish: The Stalk rises more than half a Foot in height, and is so thickly covered with such like Leaves as those which shoot from the Root, that no part of it appears to the Eye; each of these Leaves are more hairy and woolly, and compass the Stalks at the Bottoms, and are sharp-pointed: At the Top of the Stalk stands a round hoary Head, about the Size of an Apple, which opening and disclosing, shows many woolly Leaves with red Ribs standing at the Foot of the Branches, and Stalks of Flowers, which are of a Vermilion red: The Husks or Flower-Cups are larger and more woolly, and are more laid open like a Star; they stand on both sides of the Stalk, and not all on one Side: The Seed is smaller, and not so rough as that of the *Cynoglossa maxima*, and has a very small concave Centre: The Root is perennial, a Foot long, an Inch thick, naked, solid, covered with a blackish Bark, has a woody Pith, and is of a most unpleasant Taste.

Hounds-Tongue with an umbilicated Fruit, *Cynoglossum fructu umbilicato. C. B. Pin. 257. Cynoglossa altera, media, fructu: κοιλώδης, five λυχνώδης, montana, Col. Part 1. 178.*

It has a slender, fibrous, and woody Root, of a black Colour, divided into several Heads: The Leaves are much smaller than those of the common Hounds-Tongue, and have a rough hairy Covering, especially upon the upper Side: The Stalk rises to the height of a Foot, or a Foot and a half at most, is round, solid, woody, hairy, and garnished with Leaves alternately disposed, broad at the Base, and without Footstalks; at the Top it divides into three Branches that nod or bend contrary Ways, from the Position of the Flowers and Fruit: Sometimes it shoots out other little Branches from the Bosoms of the higher Leaves: The Flowers are small, of a pleasant red Colour, streaked with Lines of a blood Red, and have their Centre of a beautiful Blush: The Fruit is umbilicated, like to that of the greater Hounds-Tongue, hollow, with a broader concave Centre, and a higher surrounding Circle or Border: The

The Seed is not flat, but shaped like a Pear, and is of a bitterish Taste: *Columna* found it at the Foot of a certain Hill near to *Naples*: It bears its Flowers and Fruit in *May*, which it ripens in the Summer, and then dies.

Broad-leaved, stinking Hounds-Tongue of *Candy*, *Cynoglossum Creticum*, *latifolium fetidum* C. B. *Pin.* 257. *Cynoglossum Creticum* II. *Clusii* *J. B.* 3. 601. *Clus. Hist.* CLXII. *Cynoglossum folio molli, incano, flore caruleo, striis rubris variegato. Morison, H. R. Blef.*

The Root is long, not altogether so thick as the little Finger, somewhat fibrous, and covered with a thickish Bark of a brownish Colour without; from whence, in the first Year, spring up many Leaves a Hand-breadth or more in length, an Inch broad, which lie spread upon the Ground, soft, and covered with a short and slender Wool, and have a pretty thick Nerve, which running lengthways, equally divides the Leaf: From among these, in the second Year, the Stalk rises a Foot and a half, sometimes more in height, channelled, firm, upright, covered with a soft Wool, furnished with Leaves confusedly placed, like to those already described, but shorter the nearer they stand to the Top, and inclining from a green to a pale Colour: At the Top the Stalk divides into several slender Branches, wreathed and bowed at the Extremity like to those of the Turnsole, whereupon grow several little Flower-Cups divided into five Jags, out of which the Flowers rise, which at first are of a whitish Colour, but streaked with many purplish Veins, which as they grow old and decay, change to a Blue: When the Flowers drop the Seeds are seen in the Cups, they are wrinkled and rough: The whole Plant is of a disagreeable Smell: It flowers in *June*.

Hounds-Tongue of *Candy*, with a narrow silver-coloured Leaf, *Cynoglossum Creticum*, *argenteo, angusto folio*. C. B. *Pin.* 257. *Cynoglossum Creticum* I *Clusii*. *J. B.* 3. 600. *Clus. Hist.* CLXII.

Spanish Hounds-Tongue with a Gromil Leaf, *Cynoglossum Lithospermi folio, Hispanicum*.

Oriental Hounds-Tongue, like to the common Sort, with Leaves a Foot and a

half long, and one Foot broad, *Cynoglossum orientale, vulgari simile, foliis sesquipedem longis, & pedem latis*.

Oriental Hounds-Tongue like to the common Sort, with the smallest Flower, containing long *Stamina* or Threads, *Cynoglossum orientale, vulgari simile, flore minimo, longis staminibus donato*.

Oriental Hounds-Tongue with a rose-coloured Flower, deeply jagged, and a woolly Flower-Cup, *Cynoglossum orientale, flore roseo, profunde laciniato, calice tomentoso*.

Oriental Hounds-Tongue, narrow-leaved, with the smallest Flower containing long Threads, *Cynoglossum orientale, angustifolium, flore minimo, longis staminibus donato*.

Oriental Hounds-Tongue with a Vipers-Bugloss Leaf, the smallest blue Flower, and a rough umbilicated Ernit, *Cynoglossum orientale, Echii folio, flore caruleo, minimo, fructu umbilicato, aspero*.

The lesser oriental Hounds-Tongue, with a blue Flower, somewhat of the Bell-shape, *Cynoglossum orientale, minus, flore campanulato, caruleo*.

Oriental Hounds-Tongue with Leaves like those of Woad, and a Flower of a dark-blue Colour, *Cynoglossum orientale, glastifolium, flore atro-caruleo*.

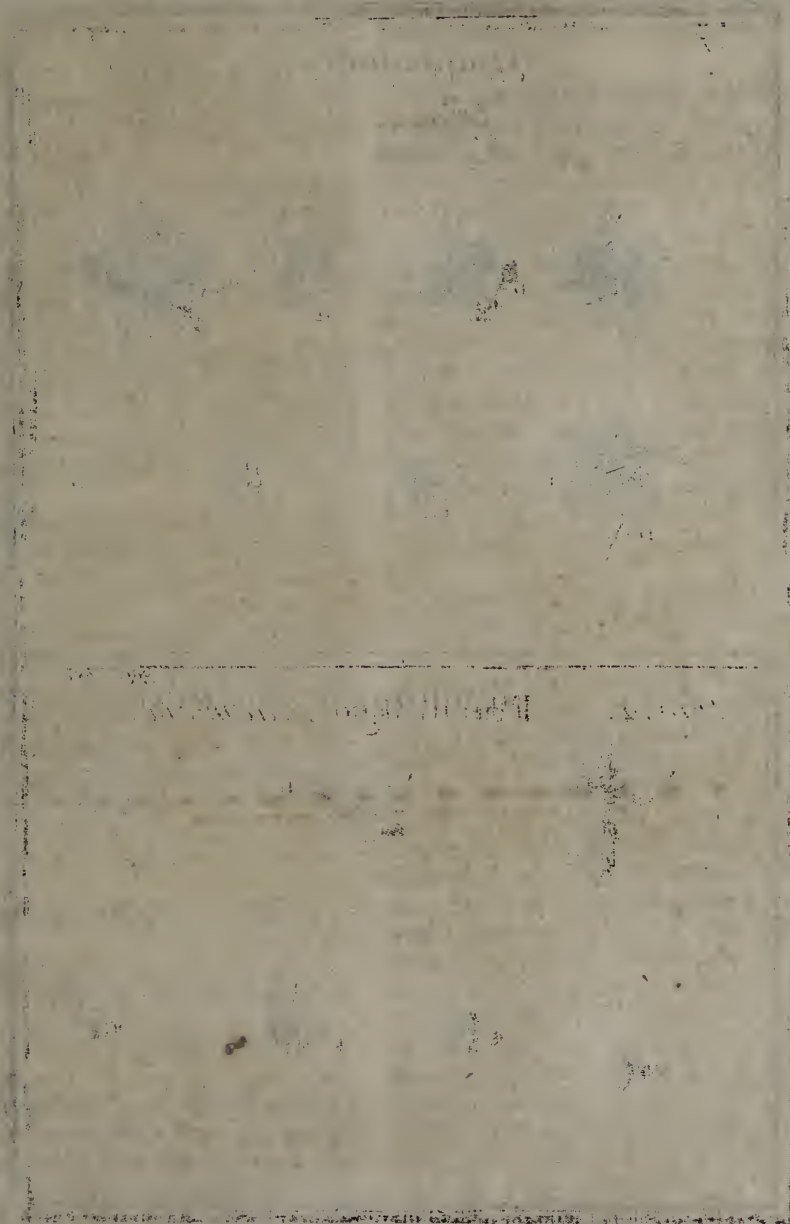
Oriental Hounds-Tongue with a Plantain Leaf, and the smallest Flower, *Cynoglossum orientale, Plantaginis folio, flore minimo*.

Oriental Hounds-Tongue with a Bugloss Leaf, and a Fruit umbilicated and crested, *Cynoglossum orientale, Buglossi folio, fructu umbilicato, cristato*.

We must exclude from this *Genus* the *Cynoglossum medium*, & *minus* of *Caspar Bauhin*, *Pin.* 257. and rank it among the Species of the Bugloss.

The name *Cynoglossum* is a Compound of the two Greek words *κυν, κυν*, which signifies a Dog, and *γλῶσσα*, a Tongue, so called from the Form of its Leaf.

The Roots and Leaves of the first Species are commonly used in the Shops: The Bark of the Root is bitter, saltish, styptic, and glutinous; it gives a pretty good Tincture of red to the blue Paper: It is probable that the Salt-Armonic which is contained in the natural Salt of the Earth, is predominant in this Plant, moderated by much Phlegm,



Omphalodes.

Fig. 1.

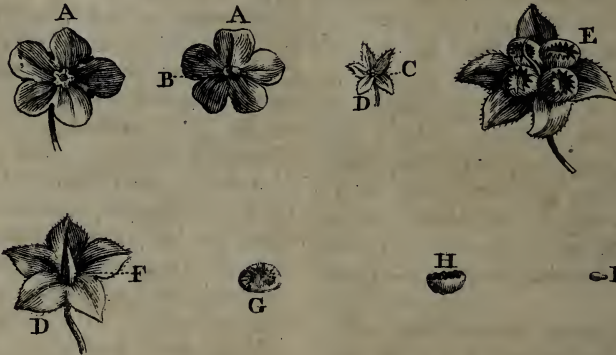
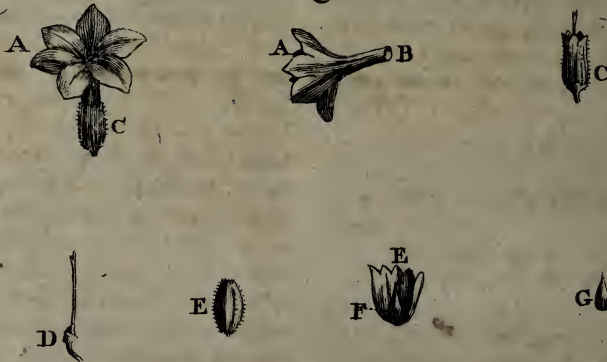


Fig. 2.

Plumbago. Leadwort.



Phlegm, Earth, and fetid Oil : The Hounds-Tongue chymically analyzed gives great Proofs of a sharp Salt and Sulphur ; so that its Root is proper to stop all manner of Fluxions, and to correct sharp or acrid Humours : It may be usefully employed in a Looseness, Gonorrhæa, and Catarrhs ; to stop a Flux of Blood, and for the Cure of Wounds and Ulcers.

An Ulcer in the Breast of a Woman was cured by the Decoction of this Herb in equal Parts of Wine and Water ; the Ulcer being washed with the Decoction, and the Leaves afterwards applied. Dr. Soame ex Observ. Jerem. Mari. Obs. 33.

Hieronymus Tragus highly extols an Ointment made of the Juice of this Plant, with Honey and Turpentine, for the Cure of old malignant and fistulous Ulcers ; and affirms it no less effectual for the Cure of the Piles.

The Root has been successfully used, both inwardly in Decoction, and outwardly by way of Cataplasm, in stumous and scrophulous Tumours.

The Hounds-Tongue has been suspected of some malignant narcotic Quality, upon which account *Schroder* says it is rarely used by practical Physicians ; but the above-mentioned Experiences are more than sufficient to confute the ill grounded Conceit : Besides, that the frequent and safe use of the *Pillula de Cynoglossa* dissipates all Fears of this Nature.

Its Species are,

Omphalodes Lusitanica, lini folio : Linum umbilicatum. Park. Theat. 1687. Venus-Lawn.

It is an annual Plant, which rises up with slender hoary green Stalks, branched towards the Tops, bearing several whitish or hoary, green, soft, long Leaves set singly, somewhat broader and thicker than those of the ordinary wild sorts of Flax : Out of the Bosom of each Leaf a Flower rises, of a white Colour, composed of one single Leaf, divided into five roundish and pointed Segments : The Flowers are succeeded by four Seeds, which when the Flower drops, are seen at the bottom of the Cup, in the same Situation with those of Hounds-Tongue, not rough however, but somewhat wrinkled and umbilicated : This Plant is said to be a Native of Portugal.

Omphalodes Lusitanica, elatior, Cynoglossi folio.

Omphalodes pumila, verna, Symphyti folio : Symphytum minus, Boraginis facie C. B. Pin. 259. Symphytum pumilum, repens, sive Borago minima Herbariorum J. B. 3. 597: Symphytum pumilum, repens, Boraginis facie seu Borago minima Herbariorum, spuria. Lob. Icon. 577. Small creeping Borage.

This small Borage shoots forth many Leaves from the Root, very like unto the Leaves of the *Pulmonaria maculosa*, spotted Cowslips of *Jerusalem*, every one upon a long Footstalk, but not spotted, of a dark green Colour, and lesser than these : The Stalks are small and slender, not above half a Foot high, with very few Leaves ; and at the Tops the Flowers rise, composed of one single Leaf, cut into five blue round-pointed Segments, more like Bugloss than Borage, without any Stamina or Threads in the Middle ; each stands upon a long Footstalk : The Root is composed of many long blackish Strings or Fibres, more like unto Avena than Borage : This Plant has a mucilaginous Taste joined with a certain Acrimony or Sharpness : The Place of the native Growth of this Plant is not known, says Mr. Ray. *Lobel* says he saw it in some curious Gardens of rare Plants in the Low Countreys.

B b

Om-

TABLE XLVII. Fig. 1.

GENUS X.

Omphalodes.

THE *Omphalodes* is a Plant with a Flower of one single Leaf A, shaped like a Wheel, and cut into several Segments ; out of its Flower-Cup D the Pointal C rises, fixed like a Nail in the Centre of the Flower B, which afterwards changes into a Fruit E, composed of four hollow and umbilicated Capsules GH, in form somewhat resembling a Basket or Pannier, which inclose a Seed almost flat I, adhering to a pyramidal and quadrilateral Placenta F.

Omphalodes orientalis, Corni folio.

The Name is derived from the Greek word *ομφαλός*, signifying a Navel: For the compounding *Capsules* or Cells of the

Fruit are umbilicated, or have a Hollow or Concavity resembling the Form of a Navel.

S E C T. V.

Of Herbs with a Flower of one single Leaf, shaped like a Funnel, and one single Seed.

T A B L E XLVII. Fig. 2.

G E N U S IX.

Plumbago, *Lead-wort*,

IS a Plant with a Flower of one single Leaf A, shaped like a Funnel, and cut into several Segments; out of whose fistulous Flower-Cup C the Pointal D rises, which is fixed like a Nail in the bottom of the Flower B, and afterwards changes into an oblong Seed FG, for the most Part sharp-pointed, which ripens in the Flower-Cup E.

Its Species are,

Plumbago quorundam Clus. *Hist.* CXXIII.
Lepidum Dentillaria dictum C. B. *Pin.* 97.
Dentillaria Rondeletii J. B. 2. 941. *Lead-wort*.

The Root is composed of long, thick, and fleshy Fibres, scented and hot to the Taste: The Leaves are like those of Woad, of a dark green Colour, but broader, encompassing the Stalk, like those of Woad, or of the *Draba*, greater, and more bluntly-pointed, always decreasing in bigness the higher they stand upon the Stalk, and slightly toothed round the Edges: The Stalks are a Foot and a half, or two Foot high, of a purplish Colour, (blackish, according to *John Bauhin*) channelled, and shoot out Branches alternately from the Middle to the Top: The Flowers stand at the Tops of the Stalks collected at first into

Clusters, in green Cups covered over with a thick viscid Hairiness; when opened they appear divided into five Parts, from a purple Blue, inclining to a whitish Colour, afterwards they become of a deeper Purple, and at last, when shut and faded, of a crimson Colour: The hollow Pipe of the Flower is likewise of a crimson Colour: The Seed is oblong, about the bigness of a Grain of Wheat, having a slender greenish Rind or Bark, and within a bluish-purple Membrane, which rubbed upon Paper, dyes it of the same Colour, which when dried, turns black; the Pith is white and bitter: The Leaves are sharp to the Taste, but the Root hot and biting; upon which account *Rondeletius* used it instead of the Root of the *Pyrethrum* for the Cure of the Tooth-ach, and from thence called it *Dentillaria*.

It flowers in the end of Summer, and in Autumn: It grows near to *Naples*, all along the Sea-Coast from *Naples* to *Rome*; and near to *Syracuse* in *Sicily*, and about *Montpelier*, in places still exposed to the South, and to Winds blowing from the Sea, tho' sometimes far remote from the Coast, as *Columna* has observed: It is called *Tripolium*, because it changes the Colour of its Flowers three Times; and is esteemed by some to be the *Molybdana* of *Pliny*, because the Root held in the Hand for some little Time, dyes the Palm of a leaden Colour.

Lead-wort with a white Flower, *Plumbago flore albo*.

American Lead-wort, with a large Beet-Leaf, *Plumbago Americana*, *Beta folio ampliori*. *Plumier*.

Prick-

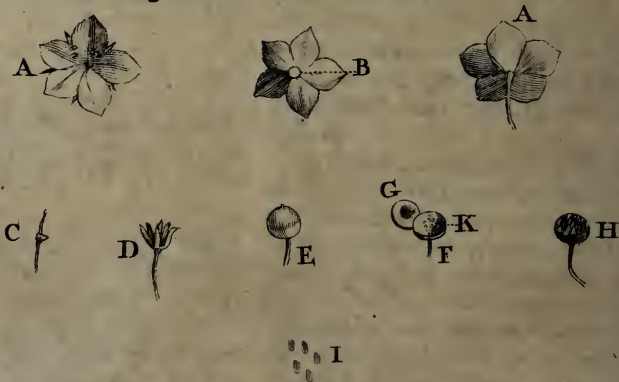


Lysimachia.
Loose Strife.

Fig. 1.



Fig. 2. *Anagallis. Pimpernel.*



Prickly and climbing *American Lead-wort*, with a lesser Beet-Leaf, *Plumbago Americana scandens, aculeata, Beta folio minori.* Plumier.

Oriental Lead-wort with a Dock-Leaf, and a small whitish Flower, *Plumbago orientalis, Lapathi folio, flore minori, albido.*

The first Species bruised and applied to the galled Backs of Horses, effectually

cures them, preventing the Generation of Worms therein, and quickly drying and cicatrizing the Ulcer, as *Columna* assures us, upon the repeated Experiences of many.

It is a caustic Plant: The Herb applied to the Wrists, cures the Tooth-ach, and some it cures by only holding it in their Hands. Dale.

SECT. VI.

Of Herbs with a Flower of one single Leaf, shaped like a Wheel, whose Pointal changes into a dry Fruit.

TABLE XLVIII. Fig. I.

GENUS I.

Lyfimachia, Loose-strife,

IS a Plant with a Flower of one single Leaf A, shaped like a Wheel, and cut into several Segments: The Pointal E, which is fixed like a Nail in the Centre of the Flower C, rises out of the Flower-Cup D, and is afterwards changed into a Fruit or Shell, almost round F, gaping or opening at the Top G, inclosing Seeds K, fixed to the Placenta H I.

Its Species are,

Lyfimachia lutea, major, qua Dioscoridis C. B. Pin. 245. Lyfimachia lutea J. B. 2. 901. Lyfimachium legitimum Dodon. Pempt. 84. Common yellow Loose-strife or Willow-herb.

The Root is of a reddish Colour, and creeps near to the Surface: It sends up Stalks two or three Foot high, channelled and hairy; at the Joints whereof the Leaves shoot out, three or four, rarely two, together, like to those of the broad-leaved Willow, sharp-pointed, of a dark Green above, more whitish below, and woolly: The

Flowers stand at the Extremities of the Branches, they are of a yellow Colour, like to those of St. John's-wort, of an acid Taste, composed of one single Leaf divided into five Segments, with five *Stamina* or Threads in the Middle: The Seed, or rather the Seed-Vessel, is like to that of the Coriander, and of an astringent Taste: It grows in moist watery Places.

Lyfimachia lutea, major, qua Dioscoridis foliis ternis C. B. Pin. 255. The greater yellow Loose-strife, or Willow-herb, with three Leaves at the Joints.

Lyfimachia lutea, major, qua Dioscoridis foliis quaternis C. B. Pin. 245. The greater yellow Loose-strife, or Willow-herb, with four Leaves at each Joint.

Lyfimachia lutea, major, qua Dioscoridis foliis quinis: The greater yellow Loose-strife, or Willow-herb, with five Leaves at each Joint.

Lyfimachia lutea, major, Pentaphyllos, Canadensis, flore pleno. H. R. Par. The greater yellow Loose-strife, or Willow-herb of Canada, with five Leaves at each Joint, and a double Flower.

Lyfimachia lutea, minor, foliis nigris punctis notatis C. B. Pin. 245. Lyfimachia lutea, minor J. B. 2. 902. Lyfimachia lutea II. Clus. Hist. LII. The lesser yellow Loose-strife or Willow-herb, with Leaves marked with black Spots.

It rises with a Stalk a Foot and a half, sometimes more in height, firm, hard, and woolly or hairy, adorned with four Leaves for the most Part at each Joint, sometimes three, standing upon Footstalks oppositely placed, soft, and somewhat hoary, lesser than those of the common yellow Loose-strife, at first of an acid Taste, but afterwards raising a slight Salivation, and marked underneath with black Spots: Towards the Top of the Stalk, out of the Bosom of each Leaf, shoot either some little Branches loaded with Flowers, or single Flowers, of a yellow Colour, and of a strong heavy Scent, composed of one single Leaf cut into five pointed Segments, containing the like Number of yellow Threads within: The Root is full of Joints, from each whereof it sends up for the most part every Year new shoots: It grows in the Valleys of the *Austrian Alps*, and flowers in *June*.

Lyfimachia trifolia, lutea, spicata C. B. *Pin.* 245. *Lyfimachia lutea*, *Æthiops*, *altera*, *Col. Part* 1. 257. Yellow Loose-strife, with three Leaves at each Joint, and spiked Heads of Flowers.

At each Joint of the Stalk it has three hairy Leaves, smaller than those of the common yellow Loose-strife: From the Angle of the Leaves with the Stalk the Flowers shoot, they are of a yellow Colour, and hang upon Footstalks two Inches long, not unlike those of the common Sort, rising out of a Flower-Cup divided into five Parts: The Stalk is channelled, and terminates in a leafy Head: When the Flowers drop, a Fruit succeeds covered within the leafy Head, equal in bigness, and like to the Coriander-Seed, enclosing Seeds, which because of their imperfect Formation, we could not observe, says *Columna*: The Root is slender, and creeps obliquely, of a flesh Colour without, and within yellowish, furnished with many thick and oblique Fibres, which penetrate into and lie near to the Surface of the Earth: It is of an astringent Taste, and of a heavy earthy Smell. Mr. Ray suspects that it is not a different Species from the preceding: *Columna* saw it only in a Garden, and not in the Place of its native Growth: It differs from the common Sort in the shortness of its Leaves, and that it is not so much branched.

Lyfimachia bifolia, flore globoso, luteo C. B. *Pin.* 245. *Lyfimachia altera, lutea*, *Lobelio, flore quasi spicato* F. B. 2. 902. *Lyfimachia lutea, altera, aut Lyfimachia salicaria*. *Lob. Icon.* 263. Part 2. Loose-strife, with two Leaves at each Joint, and yellow Flowers, growing in round Heads or Knots, or as it were in Spikes.

The Stalk rises to the height of a Foot, is slender, channelled, hollow, and full of Joints or Knots: From each Joint shoot two short Leaves oppositely placed; those that grow about the Middle of the Stalk are longer, narrow, very tender, of a pale green Colour, and obliquely cut, with some few slender Veins: Out of the Bosoms of the Leaves rise slender Footstalks an Inch long, sustaining as it were a Spike of yellow mossy Flowers, containing in their Middle some long slender *Stamina*, with a gold-coloured Knob or Chive: The Root is long and spreading, has many Joints, from each whereof it shoots some slender capillary Fibres: Mr. Ray found it in the marshy Ditches near to *Sevenhuys* in *Holland*, *Lobel* in Ditches near to *Ghent* in *Flanders*, as also among the Reeds wherewith they thatch their Houses, near to *Amsterdam*.

Lyfimachia spicata, flore albo, salicis-folio: *Ephemerum Matthioli* F. B. 2. 905. *Ephemerum Matthioli vel potius Ephemerum spurium* *Lob. Icon.* 354. Spiked Loose-strife with a white Flower, and a willow Leaf.

It rises with broad, oblong, and somewhat hard Leaves, like those of Woad, but smaller: It has many little Stalks, round, and about a Foot and a half high; which towards the Top are adorned with white Flowers successively shooting: The Seed is small, and contain'd in little round Heads: The Roots are thick and fibrous: It grows, as *Matthioli* informs us, upon the Mountains of *Anagnia*, in the Meadows and Woods plentifully.

Lyfimachia humifusa, folio rotundiore, flore luteo: *Nummularia major, lutea* C. B. *Plin.* 309. *Nummularia sive Centimorbia* F. B. 3. 370. *Nummularia* *Dod. Pempt.* 600. Low creeping Loose-strife, with a rounder Leaf, and a yellow Flower, Money-wort or Herb Two pence.

From a small thready Root it sends up many long, but slender, angular, viny Stalks,

Stalks, full of Joints, which creep and stretch along the Ground, shooting forth long Fibres from their Joints; at each whereof stand two roundish and somewhat curled Leaves oppositely placed, of a Taste strongly drying and astringent: The Flowers are yellow, large, composed of one single Leaf cut into five pointed Segments, containing within five *Stamina* with their yellow Chives, and a slender Pointal: The Footstalks of the Flowers are half an Inch or more in length, and shoot out from the Bosoms of the Leaves, so that at each Joint there are two Flowers for the most Part: Upon some Branches there are three Leaves and so many Flowers at each Joint: When the Flowers drop or decay, the Leaves of the Flower-Cup contract after the manner of the Bindweeds, and conceal within a round seminal Vessel, very small, inclosing a minute and scarce perceptible Seed: It grows plentifully, and almost every where in *England* in moist places, near to little Rivulets and Hedges: It flowers from the Month of *May* thro' a great part of the Summer.

Lysimachia humifusa, folio rotundiore, flore purpurascente: *Nummularia rubra* *J. B. 3. 371.* *Nummularia minor*, purpurascente flore *C. B. Pin. 310.* *Nummularia flore purpurascente ejusdem Prodrum. 136.* Low creeping Loose-strife, with a roundish Leaf, and a purplish Flower, or purple flowered Money-wort.

It creeps along the Ground with slender Stalks, shooting out whitish Fibres from their Joints: The Leaves stand two together at each Joint and at short Intervals, they are roundish, of a pale green Colour, smooth, not notched, and are supported by short Footstalks, about the bigness, or very little smaller than those of the common Mother of Thyme: The Flowers are of a purple or purplish red Colour, having in their Middle a round Knot of woolly *Stamina* or Threads; they rise upon long slender Footstalks singly out of the Bosom of the Leaves, large in proportion to the Plant: The seminal Vessel is small and round: The Leaves of the Flower-Cup are narrow and sharp-pointed: It delights in marshy Soils, and flowers in *July*.

Lysimachia humifusa, folio subrotundo, acuminato, flore luteo: *Anagallis lutea nemorum.* *C. B. Pin. 252.* *Anagallis lutea*, *Nummularia similis* *J. B. 3. 370.* *Anagallis lutea* *Lob. Icon. 466.* Low creeping Loose-strife with a roundish pointed Leaf, and a yellow Flower, or yellow Pimpernel.

It roots it self by the help of numerous white or reddish Fibres issuing from the Joints: It spreads several round, weak, reddish Stalks, adorned with two Leaves at each Joint, oppositely placed, sharper-pointed, and smaller than those of the Money-wort, like unto those of Chickweed, or the Male Pimpernel, smooth, and of a shining Colour underneath, supported by short Footstalks: The Flowers shoot forth singly from the Bosom of the Leaves, upon oblong Footstalks; they are yellow, and composed of one single Leaf cut deeply into five sharp-pointed Segments, in form and bigness resembling those of the common Pimpernel: The Seed-Vessel is round and small, encompassed with the five little sharp-pointed Leaves of the Flower-Cup: It grows in the Woods, and flowers after Midsummer.

Lysimachia annua, minima, *Polygoni folio*: *Linum minimum, stellatum* *C. B. Pin. 214.* *Prodr. 107.* *Bor. Monsp.* The smallest annual Loose-strife, with a Knot-grass Leaf, or dwarf wild Flax, with starred Flowers.

The whole Plant is scarce three Inches high, the Root is slender like a Hair, and whitish: It has one or two very slender Stalks: The Leaves are short, and terminate in a Point exquisitely sharp; among which the Flowers rise, of a pale green Colour, and fashioned so as to resemble a Star, composed of five little Rays, surrounding a little Circle or middle Bos.

Lysimachia orientalis, lutea, canescens & villosa: Yellow oriental Loose-strife, hoary and hairy.

Lysimachia orientalis, lutea, flore maximo: Yellow oriental Loose-strife with the largest Flower.

Lysimachia orientalis, angustifolia, flore purpureo: Narrow-leaved oriental Loose-strife, with a purple Flower,

The following Plants are to be excluded from this Genus:

Lysimachia lutea, corniculata C. B. Pin. 245. It is a Species of the *Onagra*, or Rose-bay Willow-herb: *Lysimachia siliquosa* species C. B. They are to be ranked under the *Chamaenerion*: *Lysimachia spicata purpurea, forte Plinii* C. B. Pin. 246. It's a Species of the *Salicaria*: *Lysimachia spicata, cerulea* C. B. Pin. 246. It is a Species of the *Veronica* or Speedwell. *Lysimachia rubra, non siliquosa* C. B. Pin. 246. It seems to be a Species of the *Salicaria*. *Lysimachia linifolia, purpureo-cerulea* C. B. 246. This ought perhaps to be esteemed a Species of the *Salicaria*. *Lysimachia cerulea, galericulata vel gratiola cerulea* C. B. Pin. 246. It is a Species of the *Cassida*.

Lysimachus, says *Pliny*, discovered the Herb *Lysimachia*, whose Name it retains.

The first Species, or the yellow Willow-herb, is a vulnerary Plant, but rarely used.

Lysimachia humifusa, folio rotundiore, flore luteo: *Nummularia major, lutea* C. B. *Nummularia sive Centimorbia* J. B. &c. Money-wort, or Herb Two-pence: The Leaves of this Species are somewhat sharp, or sowrith and styptic, and give a deep Tincture of Red to the blue Paper: An Acid abounds in the Money-wort, and being mixed there with some Earth, produces an aluminous Salt, involved in a small Quantity of Oil; so that this Plant is highly astringent, and an excellent Vulnerary: *Camerarius* affirms it of excellent use in the Scurvy, boiled with Milk: *Tragus* advises to boil it with Wine and Honey, and to give the Decoction to those that have an Ulcer in the Lungs, he recommends it too in Dysenteries, Losses of Blood, and for the Cure of the Whites: *Fuchsius* prescribes the Herb applied by way of Cataplasm for the drying of Ulcers: And *Matthioli* says it is singularly beneficial for the Cure of Ruptures in Children.

T A B L E XLVIII. Fig. 2.

G E N U S II.

Anagallis, Pimpernel,

IS a Plant with a Flower of one single Leaf A, shaped like a Wheel, and cut

into several Segments: The pointal C, which is fixed like a Nail in the middle of the Flower B, rises out of the Flower-Cup D, and changes as the Flower decays into a Fruit or Shell almost round E, which when ripe opens transversely into two Parts GF, one whereof lies incumbent upon the other, inclosing Seeds H, for the most Part angular I, adhering to the Placenta K.

Its Species are,

Anagallis Phæniceo flore C. B. Pin. 252. *Anagallis Phænicea, mas* J. B. 3. 369. *Anagallis mas* Dod. Pempt. 32. Male Pimpernel with a red Flower.

The Root is white, small and fibrous: The Stalks are weak, and lie spread upon the Ground, a Hand-breadth, or half a Foot in length, square, smooth, having two Leaves oppositely placed at each Joint, like to those of the middle Chickweed, without Footstalks, marked underneath with many little Spots, from a red inclining to a blackish Colour: The Flowers shoot singly from the Bosoms of the Leaves, leaning upon oblong slender Footstalks, they are composed of one single Leaf, divided into five sharp Segments, and stand in Flower-Cups consisting of five narrow oblong Leaves: The seminal Vessels are almost spherical, sufficiently large in proportion to the Size of the Plant, which when ripe open horizontally into two Parts: It grows commonly almost every where in Meads, Corn-fields, and in Gardens, without any culture; and flowers about Midsummer, dying every Year after it has ripened its Seed.

Anagallis Phænicea, foliis amplioribus, ex adverso quaternis Raii, Synop. 205. Pimpernel with red Flowers, and larger Leaves, four together oppositely placed.

Anagallis ceruleo flore C. B. Pin. 252. *Anagallis cerulea, femina* J. B. 3. 369. *Anagallis femina* Dod. Pempt. 32. Female Pimpernel with a blue Flower.

It differs in nothing from the former, but in the Colour of its Flower: It grows commonly every where almost in Italy and France, but is rarely found in England, tho' *Parkinson* says that it grows near *Battle* by *Oxford*, and plentifully in *Rumney Marsh*,

Marth, at Higham - Ferrars, Artilborow, Raundes in Northamptonshire, and at Beconsfield in Buckinghamshire.

Anagallis carulea, foliis binis, ternisve ex adverso nascentibus C. B. Pin. 252. *Anagallis tenuifolia* Monnelli, Clus. App. alt. ad Lib. VI. Blue Pimpernel with two or three Leaves at each Joint oppositely placed.

Anagallis femina, flore ferrugineo H. Edenburg. Female Pimpernel with a rusty coloured Flower.

Anagallis floribus obsoletè purpureis Park. Theat. 558. *Anagallis purpurascens* flore Clus. Hist. CLXXXIII. Pimpernel with Flowers of a worn-out red Colour.

Anagallis floribus carneis Park. Theat. 558. Pimpernel with Flowers of a blush or incarnate Colour.

Anagallis flore albo C. B. Pin. 252. *Anagallis femina*, flore albo H. Edenb. *Anagallis terrestris*, flore albo Raii, Synop. 206. Pimpernel with a white Flower.

Anagallis Hispanica, latifolia, maximo flore. *Anagallis exotica*, amplo flore, caruleo Brosi: Broad-leaved Spanish Pimpernel, with a large Flower.

Anagallis Lusitanica, folio rotundiore: Pimpernel of Portugal, with a rounder Leaf.

Anagallis Lusitanica, latifolia, parvo flore: Broad-leaved Pimpernel of Portugal, with a small Flower.

Anagallis Lusitanica, linariae folio, major: The greater Pimpernel of Portugal, with a Toad-flax Leaf.

Anagallis Lusitanica, linariae folio angustiore: Pimpernel of Portugal, with a narrower Toad-flax Leaf.

Anagallis pusilla seu omnium minima Moris. Hist. Oxon. Part. 2. 569. the least or smallest Pimpernel.

Anagallis minima, maritima, Gallo-provincialis, folio rotundiore: The smallest Pimpernel with a rounder Leaf, growing upon the Sea-Coasts in Provence.

Anagallis Cretica, vulgari simillima, flore luteo: Pimpernel of Candy with a yellow Flower, very like to the common Pimpernel.

The Species of the *Anagallis aquatica*, or Water Pimpernel C. B. Pin. 252. are to be excluded from this Genus, and ranked under the *Samolus* or the *Veronica*.

The first Species, or the male Pimpernel with a red Flower, is what is commonly used in the Shops: It has a styptic saltish Taste, and gives a considerable Tincture of Red to the blue Paper: The Fruit reddens it still more; which gives ground to conjecture that the Salt of this Plant approaches near in Nature to the *Terra foliata Tartari Mulleri*: *Tragus* says, that a Glass of the Wine in which this Herb has been gently boiled, is an excellent Remedy against the Plague, provided that the Patient keeps in Bed, and don't interrupt the Sweat which ensues upon taking of this Decoction; he prescribes this Remedy to those that have been bit by a Viper, or by a mad Dog, and advises them at the same Time to wash the Wound therewith, and then apply the Herb externally: Instead of the Decoction of Pimpernel, we may use its Juice, which the same Author highly esteems in a Dropsy, and in Obstructions of the Liver and Reins, for it helps to expel the Stone without any consequent Inconvenience: *Hartman*, *Mynsicht*, *Rolsincius*, *Michael*, *Willis*, and several other Authors extol the use of this Plant in a *Mania* or Madneſs, as also in the *Delirium* consequent upon continual Fevers; in which cases we may use either its Decoction or Tincture drawn by the Spirit of Wine: The Extract of this Plant has the like Virtues; we may mix it with that of St. John's-wort in an Epilepsy: *Simon Paulli* tells us, that a Cataplasim of this Herb boiled in Urine, is an usual Remedy in his Country for goutish Pains in the Feet.

The Pimpernel is moderately hot and dry, consequently esteemed a good vulnerary Plant, both for external and internal Use, for which purposes either its Decoction or distilled Water is employed.

In all Distempers of the Lungs it is look'd upon by some Authors as a very effectual Remedy: In a Phthisis, Ulcer or Impostume of the Lungs, fetid and purulent Spitting, the distilled Water of the male Pimpernel mixed with an equal Quantity of red Cow's Milk, and sweetened with a little Sugar, is prescribed by them to be taken Morning and Evening to the Quantity of twelve Spoonfuls, and confirmed

firmed an admirable Medicine by repeated successful Experience.

A certain Woman at *Paris* cured many of Suffusions, Films, Pins or Webs in the Eye, with the distilled Water of this Plant.
Ray.

TABLE XLIX. Fig. 1.

GENUS III.

Samolus, Round-leaved Water Pimpernel.

IS a Plant with a Flower of one single Leaf A, shaped like a Wheel, and cut into several Segments: The Pointal C, fixed like a Nail in the Centre of the Flower B, rises out of the Flower-Cup D, and afterwards conjoining and uniting with the Flower-Cup, changes into a Fruit or Shell E, opening at the Top F, and inclosing Seeds G, for the most Part very small and minute.

I know but one Species of the *Samolus*.

Samolus Valerandi J. B. 3. 791. *Anagallis aquatica*, folio rotundo, non crenato C. B. Pin. 252. *Anagallis aquatica*, tertia Lob. Icon. 467. Round-leaved Water Pimpernel.

The Roots of this Plant are white and fibrous: The Leaves which rise immediately from the Roots, are narrow at the Bottom, from whence they gradually widen and dilate; terminating in a round Point, about two Inches long, one Inch broad, of a pale green Colour, not in the least notched or infected round the Edges, thick and smooth: The Stalks are half a Foot or a Span high, slender, stiff, round, upon which grow Leaves in an alternate order without Footstalks, shorter and rounder than those that stand next to the Root; at the Top the Stalks divide into Branches: At the Tops of the Stalks and Branches the Flowers rise singly upon Footstalks half an Inch long: At the Origine of the Footstalks from the Stalk there is no leaf placed, but upon the Footstalk it self at a little Distance from the Flower, there is always one

Leaf: The Flowers are small and of a white Colour, composed of one single Leaf divided into five broad Segments: The Seed-Vessels are round, full of a small Seed, of a brownish Colour when ripe: The Taste of the Plant is bitter: It delights in marshy Grounds, and flowers in *June*.

The *Samolus* differs from the *Lysimachia* or Loose-strife, not only in the Form of its Flower; but also in its Fruit, composed of the Flower-Cup and Pointal conjoined.

TABLE XLIX. Fig. 2.

GENUS IV.

Veronica, Speedwell or Fluellin,

IS a Plant with a Flower of one single Leaf A, shaped like a Wheel, and cut into several Segments: The Pointal D, which is fixed like a Nail in the middle of the Flower B, rises out of the Flower-Cup C, and afterwards, as the Flower decays, changes into a membranous Fruit E G, divided into two Cells F H, enclosing sometimes small Seeds K, sometimes Seeds larger and thicker I.

Its Species are,

Veronica mas, supina & vulgarissima C. B. Pin. 246. *Veronica vulgarior*, folio rotundiore. J. B. 3. 282. *Veronica mas serpens* Dodon. Pempt. 40. Male Speedwell or Fluellin.

Its viny Stalks lie flat upon the Ground, and as they creep along emit from their Joints several Fibres or Roots: They are slender, round, long, hairy, and full of Joints, having two Leaves oppositely placed at each Joint, hairy, and toothed like a Saw round the Edges, and of a bitter and sharp Taste: The Flowers grow in Spikes after the manner of those of the bastard Germanander, they are composed of one single Leaf cut into four Segments of a pale bluish Purple, and streaked, with Stamina or Threads of the same Colour in their Middle: They are succeeded by Seeds like those of the bastard Germanander, inclosed in Cells, resembling those of the Shepherd's Purse: It grows plentifully in dry pasture

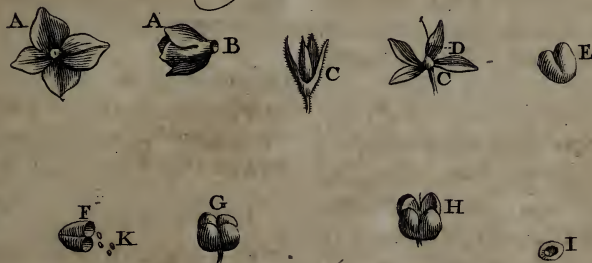
Samolus. Round-leaved, Water Pimpernel.

Fig. 1.



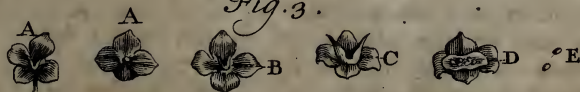
Veronica. Speedwell or Fluellin.

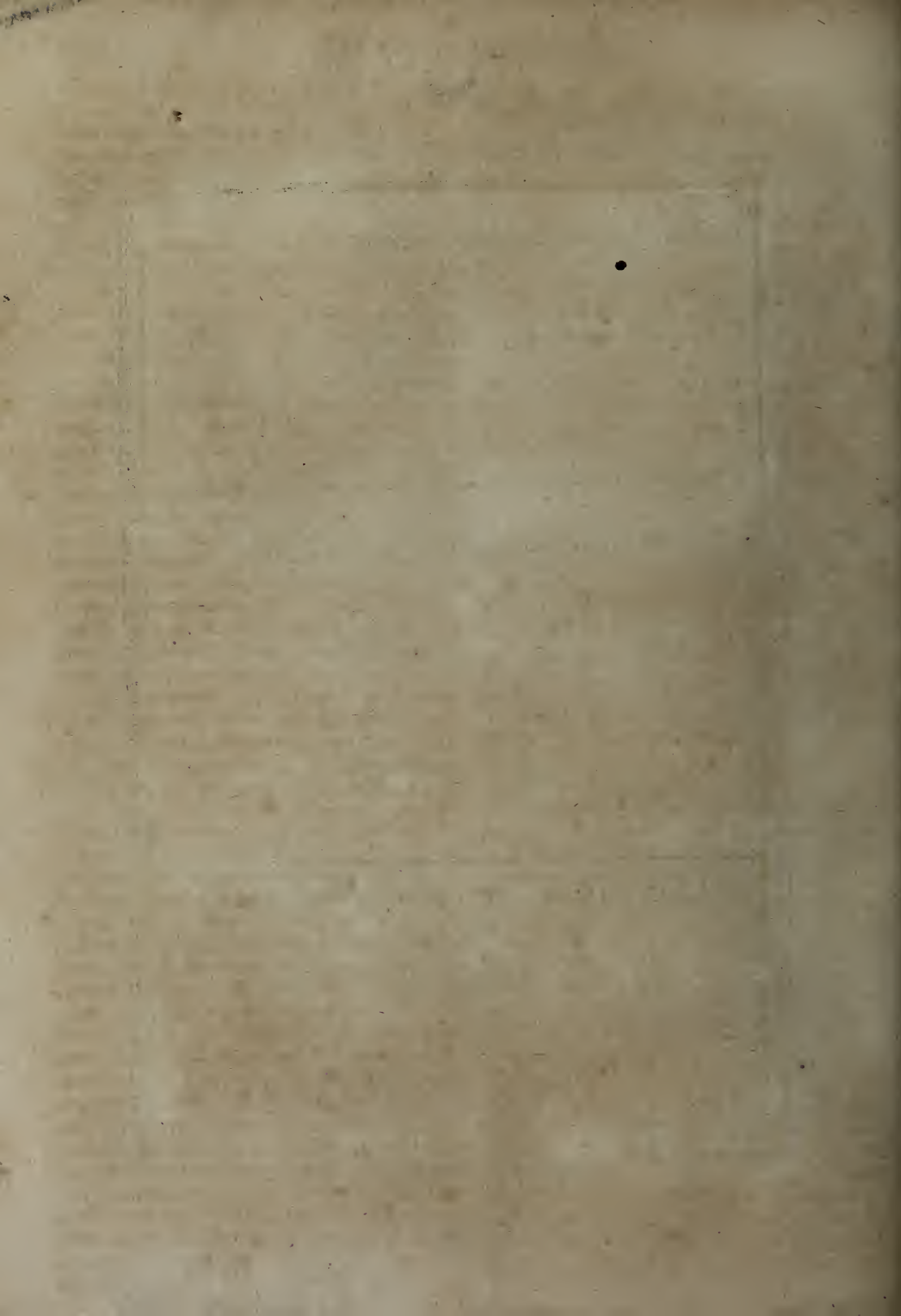
Fig. 2.



Chrysosplenium. Golden Saxifrage.

Fig. 3.





rage Grounds and Heaths, upon sunny Banks and in sandy Soils: It flowers in the Summer.

Veronica mas, repens, Pyrenaica, folio longiori, glabro. Schol. Bot. Pluk. Phytog. Tab. 233. Fig. 1.

Veronica mas, erecta C. B. Pin. 246. Veronica assurgens Dod. Pempt. 40. Upright male Speedwell or Fluellin.

John Bauhin reckons it the same with the first; and indeed, says *Mr. Ray*, if you consider either the Figures or Descriptions that are given of it, you'll find but very little difference: It is said to have more upright Stalks; *Gerard* however, says they creep, and its Leaves more indented, (the Figure nevertheless represents fewer Incisions) long and narrow towards the Tops of the Stalks: Its Flowers and Seed-Vessels are smaller.

Veronica spicata, latifolia C. B. Pin. 246. Veronica major, latifolia, foliis splendentibus & non splendentibus J. B. 3. 283. Veronica I, erectior, latifolia, Clus. Hist. 346. Great broad-leaved spiked Speedwell or Fluellin.

It rises with Stalks a Foot and a half or two Foot high, not much branched, but full of Joints or Knots, at each whereof stand two Leaves oppositely placed, two or three Inches long, one Inch broad, thick, of a dark green Colour, and shining; somewhat, but almost imperceptibly, notched, of Taste highly drying and astringent, accompanied with some Sharpness: At the Top of the Stalk the Flowers grow, set thick together in Spikes, in form like to those of the upright Speedwell, but of a paler Colour, beginning to blow and disclose from the Bottom of the Spike: The Seed is small and of a brownish Colour, enclosed in flat Husks: The Root is thick and fibrous, sending up yearly new Stalks from its Sides.

There is a Variety of this Species, which does not exceed a Foot and a half in height, very much branched at the Top, whose Leaves are as large and thick as those of the other, but they neither shine nor are of so dark a Colour.

There is still another variety not unlike to the second, whose Leaves are more conspicuously notched or toothed, and its little Branches bear longer Spikes of Flowers,

in other Things it agrees: They both taste like the first.

This Species, with its Varieties, is found upon many of the woody Mountains of Hungary, and at the Roots of the Alps of Stiria and Austria, and delights in the Shade.

Veronica spicata, flore purpureo Morisf. H. R. Blesf. Spiked Speedwell with a purple Flower.

Veronica spicata, angustifolia C. B. Pin. 246. Veronica major, angustifolia, caulibus viridibus J. B. 3. 284. Veronica II, erectior, angustifolia. Clus. Hist. 346.

It has a fibrous Root shooting obliquely into the Earth, which sends up an upright Stalk, sometimes only four Inches high, sometimes a Foot or a Foot and a half in height, and sometimes it rises much higher, single for the most Part, adorned with Leaves at the Joints narrower and sharper-pointed than those of the common Speedwell, gently notched, hairy, and somewhat broad at bottom: The Stalk terminates in a long Spike, single for the most part in Appearance, sometimes thickly deck'd with blue Flowers, like those of the common Speedwell, opening and disclosing by Degrees from the Bottom of the Spike to the Top; and when they drop, they leave behind them long slender Stamina or Threads: The Seed is contain'd in flat Husks divided into two Parts.

John Bauhin is of Opinion that the greater spiked Speedwell differs only in bigness from the smaller: *Clusius* and *Lobel* constitute it a different Species: The one, says *Clusius*, is greater, and has broader Leaves, and a longer Spike of Flowers: The other is smaller, has a slenderer and shorter Stalk, narrower Leaves, and a lesser Spike: *Mr. Ray* says he would not, without necessity, multiply Species, and therefore, with *John Bauhin*, he modestly affirms they are not specifically different.

Caspar Bauhin does not distinguish the *Veronica secunda, erectior, angustifolia*, the second narrow-leaved and more upright Speedwell of *Clusius*, from the *Veronica recta, vulgaris major*, the greater common upright Speedwell of the same Author: And *John Bauhin* affirms that the *Veronica secunda, major, angustifolia* of *Clusius*, is much the same

with his *Veronica spicata recta*. *Clusius* thus describes it,

Its Root is fibrous, and propagates it self from its Sides, sending up every Year new Stems about a Foot and a half high, upright, green, and as it were distinguished into Knots and Joints: At each Joint grow two oblong Leaves oppositely placed, very like those of the blue Loose-strife, but thicker and less indented, of a disagreeable astringent Taste accompanied with some Sharpness: The Branches terminate in Spikes of little blue Flowers, single-leaved, but cut into four Segments, having in their Centre two little *Stamina* or Threads with a small Pointal: The Seed is contained in flat Vessels divided into two Parts, but somewhat swelling and soft, in fashion like a Pillow or Cushion, it is very small, and of a brownish red Colour: It is found diversified in its Leaves, which in some are a little Broader, and in its Stalks less branched, and in its Spike, which carries Flowers of a paler Colour: It grows in the same Places with the *Veronica prima, erectior, latifolia* of *Clusius*; and flowers at the same Time.

Veronica spicata, longifolia: *Lysimachia spicata, caerulea* C. B. Pin. 246. *Veronica spicata, recta, profundè serrata, quam Lysimachium caeruleum quidam vocant.* J. B. 3. 284. *Pseudolysimachium caeruleum* Dod. Pempt. 86. Long-leaved spiked Speedwell, upright and deeply indented, or blue spiked Loose-strife.

The Stalk is a Foot and a half high, round, smooth, shooting out three or more Leaves from each Joint at certain Intervals, like to the Leaves of Sneezewort, two or three Inches long, and broad as a Stalk or Stem of Corn, deeply indented, and smooth: The Spike is long and deck'd with Flowers closely heaped together, of a blue Colour, leaving behind them when they drop their long slender Threads: They are succeeded by many little small Purses, which enclose minute Seeds: The Root is small and fibrous, but not creeping, sending up yearly from its Head new shoots, by which it propagates it self with wonderful increase: It grows in several Parts of *Hungary*, and in the Countreys bordering upon *Austria* and

Siria, either near to Rivulets, or in mountainous Meadow Grounds, as *Clusius* writes.

Veronica spicata, minor C. B. Pin. 247. *Veronica spicata, recta, minor* J. B. 3. 282. *Veronica recta, minima* Clus. Hist. 347. The smaller spiked Speedwell.

Veronica parva, saxatilis, caule nudo, Raii Hist. 846. *Veronica Alpina, pumila, caule aphylo.* Bocc. Mus. Part 2. 17. Tab. 1. and 9. Small Rock Speedwell with naked Stalks.

It spreads it self after the same manner that the *Cotyledon altera* of *Matthiolum*, or the *Sedum ferratum*. According to *Clusius*, from the same Heads in which its little Roots unite, it sends divers little Branches in a Round, like the elegant Spring Gentian, which lie flat upon the Ground, and bear four or six Leaves alternately opposite, but so closely heaped together that they seem to shoot from the same Origine; they are small, roundish, hairy, and notched about the Edges: From the middle of the Leaves, as in the *Sedum ferratum* or indented House-leek, rises a little Stalk, two or three Inches high, round, very slender, and bare of Leaves, bearing some Flowers at its Top; not two only, as *Clusius* writes, but five, six, or more, like those of the Bastard-Germander or Speedwell, of a blue or ash Colour, consisting of one single Leaf, divided into four Segments: At the Footstalk of each Flower is placed one single oblong Leaf: The feminal Vessels are large, flat, and divided into two Parts: Mr. Ray found it growing plentifully upon *Thunberg*, one of the Tops of the Mountain *Jura*; and *Clusius* upon the Top of *Sneberg*.

Veronica pratensis, serpyllifolia C. B. Pin. 247. *Veronica semina quibusdam, aliis Betonica Pauli serpyllifolia* J. B. 3. 285. *Veronica pratensis* Dod. Pempt. 41. Meadow Speedwell, with Leaves like those of the Mother of Thyme.

It sends downwards into the Earth many long, slender, white Fibres: Its little Stalks and Branches lie reclined, and shoot out Roots from their Joints as they creep along: Some of its little Stalks rise upright to the Height of half a Hand-breadth, or a Hand-breadth, slender and jointed: At each Joint two Leaves stand opposite, like those

those of the Mother of Thyme, oblong, roundish, and sometimes a little notched: The Flowers rise singly upon a slender and short Footstalk from the Bosoms of the higher Leaves; they are beautiful, without smell, single-leaved, and cut into four Segments or seeming Leaves, three whereof are blue or whitish and streaked, the fourth is less than the others, and whitish, without any Streaks: The Threads which stand in the Middle of the Flower are white, and the Chives blue: They are succeeded by little Bladders or Husks, like those of the common Speedwell: It grows in Meadows and moist Grounds, in Woods and sandy Soils: It flowers in the Months of May and June, and lives throughout the whole Year.

Veronica mas, Alpina, glabra, erecta, foliis parum crenatis Bocc. Mus. Part 2. 17. Tab. 10. Male, upright, Mountain Speedwell, smooth, having Leaves very little notched.

Veronica minima, Clinopodii minoris folio, glabra, Romana, Bocc. Mus. Part 2. 19. Tab. 102. The smallest smooth Roman Speedwell, with a Leaf like that of the lesser field Basil.

Veronica serpylli cochleato & lenticulari folio, repens Bocc. Mus. Part 2. Tab. 32.

Veronica Alpina, bellidis folio, hirsuta C. B. Pin. 247. Prodr. 116. Hairy, Mountain Speedwell with a Daisie Leaf.

The Root is furnished with oblong blackish Fibres, and creeps horizontally in the Earth: The little Stalk rises half a Hand-breadth or a little more in height, is slender, hard, flexible, and lies reclined: It has many Leaves next to the Root, in form resembling those of the blue Daisie, small, roundish, of a dark green Colour, hairy and thick; upon the Stalk there grow but few, two together oppositely placed: At the Tops of the little Stalks stand some blue Flowers, collected as it were into an Umbel, rising out of small hairy Cups, they are single-leaved, and cut into four or five Segments, containing within two Threads and a Pointal: The Seed lies enclosed in short flat Vessels, the Pointal shooting as it were out of the middle Bos or Umbo: We found it, says Mr. Ray, upon the Helvetian Alps,

Veronica Alpina frutescens C. B. Pin. 247. *Veronica saxatilis* J. B. 3. 284. *Veronica tertia, fruticans* Clus. Hist. 347. Shrubby mountain Speedwell.

It rises with many little twiggy Branches, round and smooth, at most but one Hand-breadth and a half high: The Leaves are like those of the Mother of Thyme, but somewhat longer, of a dark green Colour, notched here and there upon the Edges, smooth, round-pointed, two always together oppositely placed: The Tops of the Stalks are adorned with pretty large Flowers of a pale blue Colour, resembling those of the common Bastard Germander: The Seed-Vessels are flat and shaped like a Heart, like to those of the common creeping Speedwell: It grows upon the highest Tops of the Mountain Jura, near to Thuri: Pona found it upon the Summits of Monte-baldo towards the East.

Veronica frutescens, durior, oblongo Chamaedrys folio, Patavina Bocc. Mus. Part 2. 18. Tab. 10.

Veronica Alpina, fruticans, serpylli minoris folio circinato. Pluk. Phytog. Tab. 232. Fig. 6.

Veronica petraea, sempervirens Pon. Bald. in fol. CCCXXXVI. *Chamaedrys Alpina, saxatilis* C. B. Pin. 248. *Veronica petraea, sempervirens* Pona, ad *Chamaedrym vulgarem falsam accedens* J. B. 3. 289. Ever-green Rock Speedwell, or Rock Germander.

It is a very low Plant, its little Twigs not exceeding half a Hand-breadth in height, upon which sprouts out a certain Wool or Down; the Leaves grow thereupon in Pairs, one still placed oppositely to the other, in form very much resembling those of the lesser Germander; from among which, at the Tops of the little Stalks rise little oblong Flowers out of the bearded Cups, differing in form from those of the *Veronica parva saxatilis cauliculis nudis*, for they are hollow, jagged round the Edges, and broader, but of a blue Colour; from their middle two little Stamina shoot with a long Pointal: When the Flowers drop, there follows larger and thicker Husks, full of a small Seed: The Root is fibrous and creeps near to the Surface: *Clusius* found it upon the Top of mount *Estcher*, and no where else.

Veronica Austriaca, foliis tenuissimè lacinia-
tis: *Chamadrys Austriaca*, foliis tenuissimè laci-
natis C. B. Pin. 248. Prodr. 117. *Chama-*
drys spuria, tenuissimè lacinata J. B. 3. 287.
Austrian Speedwell, with Leaves finely jag-
ged, or *Austrian* Germander with jagged
Leaves.

This is a most beautiful Species of the
Germander: It rises with Stalks a Foot
high, sometimes more, round, (except the
thicker ones, which at their lower part ap-
pear square) firm, branched, and somewhat
woolly: The Leaves which stand several
together at each Joint, are finely and deep-
ly jagged: The Extremities of the little
Branches bear a Fruit shaped like a Heart
enclosed within a leafy Cup, which con-
tains a small flat Seed of a light red Co-
lour: The Root is thickish, and furnished
with many black Fibres.

Caspar Bauhin says it bears bluish Flowers
disposed in an oblong Spike.

Veronica maxima Lugd. 1165, *Chamadrys*
spuria, major, latifolia C. B. Pin. 248. The
greatest Speedwell, or the greater broad-
leaved bastard Germander.

Veronica maxima, *Pyrenaica*, non ramosa:
Veronica seu *Chamadrys spuria*, latifolia, ma-
jor, non ramosa, *Pyrenaica* Schol. Bot. Pluk.
Phytog. Tab. 233. Fig. 2. The greatest un-
branched Speedwell, or bastard Germander
of the *Pyrenees*.

Veronica major, frutescens, altera Moris.
Hist. Oxon. Part 2. 319. *Chamadrys spuria*,
major, altera sive frutescens C. B. Pin. 248.
Chamadrys falsa, maxima, an *Teucrium pri-*
mum, seu majus *Pannonicum* Clusio J. B. 3.
286. *Teucrium quartum* Clus. *Hist. 349.* The
greater shrubby Speedwell, or the greater
shrubby bastard Germander.

It is nearly related to the common ba-
stard Germander in form and appearance,
but in every respect much greater: The
Leaves are long, sharp-pointed and indented,
and stand in Pairs upon the hairy
Stalks: The Branches which shoot out op-
positely, bear a long Spike of Flowers, like
to that of the common Germander, but
greater; the Flowers are succeeded by flat
Vessels or Husks, partitioned into two
Parts: It grows in the woody Parts of Ger-
many, and about Geneva.

Clusius describes his *Teucrium quartum*
with Stalks a Foot and a half high, qua-
drangular, and somewhat hairy, Leaves
like those of the common bastard Germand-
er, two always together in opposition, in-
dented round the Edges, and of a bitter
Taste, with blue Flowers in long Spikes,
rising from the Bosoms of the upper Leaves,
the highest whereof is somewhat broad and
distinguished with Veins: The Root, says
he, is fibrous and long-lived, producing
new Stalks every Year, which from their
lowest Part emit new Roots, and so pro-
pagate.

Veronica supina, facie *Tencrui pratensis*
Lob. Icon. 473. *Chamadrys spuria*, angustifolia J. B. 3. 295. *Chamadrys spuria*, ma-
jor, angustifolia C. B. Pin. 249. Germander
like Speedwell, or narrow-leaved bastard
Germander.

From the same slender but long, creep-
ing, lignous and fibrous Root, it sends up
many little Twigs or Stalks which lie spread
upon the Ground, sometimes somewhat
erected, slender, round, hairy, and woody,
about a Hand-breadth or a Span in length;
whereupon the Leaves grow in Pairs at
certain Intervals, oblong, and indented:
The Stalks near their Extremities divide in-
to some few Branches, sustaining a Spike of
blue Flowers, which don't all open and
disclose at once, but gradually from the
Bottom of the Spike upwards; the Stamina
or Threads are of the same Colour with
the Flowers, and the Pointal very slender:
At the short and slender Footstalks of the
Flowers a thin oblong and green little
Leaf is placed: It grows in Meadows near
to Rivers, Rivulets, Ditches and Fountains,
and sometimes in Woods; and Flowers in
June, July and August: It grows naturally
in England.

Veronica minor, foliis imis rotundioribus
Moris. Hist. Oxon. Part 2. 220. *Chamadrys*
spuria, latifolia J. B. 3. 286. *Chamadrys*
spuria, minor, rotundifolia C. B. Pin. 249.
Teucrium pratense & *supinum*, *spurius*, *Chama-*
dryoides *Lob. Icon. 490.* The lesser Speed-
well, having its lowermost Leaves some-
what round, or broad-leaved bastard Ger-
mander.

Veronica minor, foliis imis rotundioribus,
flore

flore albo. *H. L. Bat.* The lesser Speedwell, having its lowermost Leaves somewhat round, and a white Flower.

Veronica minor, angustifolia, ramosior & procumbens *Morif. Hist. Oxon. Part 2. 321.* *Chamedrys spuria, minor angustifolia* *J. B. 3. 287. C. B. Pin. 249.* The lesser narrow-leaved bastard Germander.

Veronica multicaulis, Pannonica: Chamedrys spuria, minor, latifolia *C. B. Pin. 249.* *Chamedrys falsa species, Teucrium secundum aut quintum Clusii* *J. B. 3. 286. Teucrium quintum Clus. Hist. 350.* Hungarian Speedwell bearing many Stalks, or the lesser broad-leaved bastard Germander.

It sends up immediately from the Root many little Stalks about a Span long, leaning upon the Ground, and of a purplish Colour: The Leaves stand thereupon alternately in Pairs, opposite, in form and Colour like to those of the Germander, and indented round the Edges after the same manner, but smaller; at first when tasted they dry the Tongue, leaving afterwards a certain Bitterness: The Extremities of the Stalks dividing into Branches, bear numerous Flowers growing in Spikes, composed of four seeming Leaves, whereof that which stands highest is broader and larger than the rest: From the Centre two little Threads rise with a Pointal shooting from the Middle; they are either of an elegant Blue, or of a paler Blue, and as it were an ash Colour; when they drop they are succeeded by little flat Husks enclosing a small reddish Seed: The Root is fibrous, and lives long, shooting forth yearly new Stalks, which sometimes emit Fibres near to the Root: It grows in all dry uncultivated Soils, and grassy Eminencies near to the high Roads of the lower *Austria*.

Veronica tetragona, montana, recta, minima. *Col. Part 1. 289.* *Chamedrys spuria, latifolia, minima* *C. B. Pin. 249.* The smallest broad-leaved bastard Germander.

Veronica supina, Teucrii folio: Chamedrys spuria affinis rotundifolia, scutellata *C. B. Pin. 249.* *Alyssum Dioscoridis montanum* *Col. Part 1. 286.* Wild Germander with Leaves standing upon long Footstalks.

Its Roots are composed of many small long Fibres: The Stalks are round, hairy, slender, reclined upon the Ground, here

and there emitting Roots, and adorned at certain Intervals with two Leaves at a Place, oppositely disposed upon Footstalks half an Inch long, rough, with a long whitish hairy Covering, indented round the Edges with large Teeth, shorter, and of a paler Colour than those of the common bastard Germander: The Flowers rise from the Bosoms of the Leaves, and grow in Spikes, more thinly disposed (three or four upon a very slender and hairy Footstalk) upon Footstalks half an Inch long, single-leaved, but divided into four Segments almost to the Bottom, of a pale Purple or Blue, and streaked with Lines of a deeper Colour: They are succeeded by a flat Fruit composed of two little oval Husks shaped like a Buckler, joined at the Sides, and hairy round the Edges, having two Leaves placed upon each Side of their Base, and containing within in each Division five or six flat yellow Seeds: It grows in *England* in moist woody Grounds, especially near to Brooks or Rivulets.

Veronica flosculus cauliculis adherentibus *Morif. Hist. Oxon. Part 2. 325.* *Alfine Veronica foliis, flosculus cauliculis adherentibus* *C. B. Pin. 250.* *Alfine serrato folio, hirsutiori, flosculus & loculis cauliculis adherentibus* *J. B. 3. 367.* Speedwell Chickweed.

Veronica aquatica, major, folio subrotundo *Mor. Hist. Oxon. Part 2. 323.* *Anagallis aquatica, major, folio subrotundo* *C. B. Pin. 252.* *Berula sive Anagallis aquatica* *Tabern. Icon. 719.* *Anagallis aquatica, folio rotundiore, major* *J. B. 3. 791.* The greater Water Speedwell with a roundish Leaf, or the greater round-leaved Brooklime.

Veronica aquatica, minor, folio subrotundo: Anagallis aquatica, minor, folio subrotundo *C. B. Pin. 252.* *Anagallis aquatica, flore caruleo, folio rotundiore, minor* *J. B. 3. 790.* The lesser Water Speedwell with a roundish Leaf, or common Brooklime.

Veronica aquatica, major, folio oblongo *Mor. Hist. Oxon. Part 2. 323.* *Anagallis aquatica, major, folio oblongo* *C. B. Pin. 252.* *Anagallis aquatica, flore caruleo, folio oblongo, major* *J. B. 3. 791.* *Berula major* *Tabern. Icon. 719.* The greater Water Speedwell with a long Leaf, or the greater Water Pimpernel with a long Leaf and a blue Flower.

Veronica aquatica, minor, folio oblongo: *Anagallis aquatica, minor, folio oblongo* C. B. Pin. 252. *Anagallis aquatica, flore purpurascens, folio oblongo, minor* J. B. 3. 791. *Anagallis aquatica, minor, secunda Tabern. Icon.* 718. The lesser Water Speedwell with an oblong Leaf, or the lesser long-leaved Brooklime or Water Pimpernel.

It roots it self in the Earth by Fibres which shoot from the Joints of the Stalks: The Stalk is thick, round, and hollow: The Leaves stand in Pairs at each Joint of the Stalk, without Footstalks, sometimes there are found three at a Joint, they are long, narrow, notched round the Edges, and terminate in a sharp Point: The Flowers rise upon little Twigs, which shoot out of the Wings or Bosoms of the Leaves, in loose Spikes, of a pale purplish Colour, small and single-leaved, cut into four Segments, and stand upon short Footstalks, each whereof has a little Leaf placed at its Origine: The Cup is composed of four Leaves: The Seed-Vessels are divided into two Parts, like those of the *Beccabunga*, or common Brooklime, and are replenished with small Seeds: This Plant does not exceed a Foot in height: It grows by Rivulets or Brooks.

Veronica aquatica, repens, olea folio: *Beccabunga Alpina, sive Veronica glabra, Alpina, aquatica, olea folio, repens* Bocc. Mus. Part 2. 22. *Beccabunga Alpina, angustifolia, repens ejusdem.* Tab. 6. Creeping Water Speedwell with an Olive-Leaf.

Veronica aquatica, angustiori folio: *Anagallis aquatica, angustifolia, scutellata* C. B. Pin. 252. *Anagallis aquatica, angustifolia* J. B. 3. 791. Water Speedwell, or Water Pimpernel with a narrow Leaf.

It fixes it self in the Earth by the means of many little fibrous Roots: The Stalks are a Hand-breadth and more in length (*John Bauhin.* says they are a Foot and a half) round, weak and leaning upon the Ground, full of Joints, from which, as it creeps along, it emits Fibres or Roots, and so propagates it self: The Leaves are oblong, narrow, sharp-pointed, and stand in Pairs at the Joints in opposition one to the other, three or four Inches long, broad as a Stalk of Corn, with one Nerve running lengthways, sometimes found indented

round the Edges with Incisions scarce perceptible, otherwise even and undivided, in watery places smooth, in dry Grounds hairy, as are the Stalks, and of a reddish Colour sometimes: The Flowers rise upon little branchy Stalks shooting from the Bosom of the Leaves, each upon proper and very slender Footstalks not half an Inch long, small, consisting of one single Leaf cut deeply into four Segments, for the most Part of a milky Colour, sometimes of a pale purplish Colour, and are embraced by a Cup composed of four Leaves: The Seed-Vessels are flat, divided into two Cells or Apartments, and enclose small Seeds: The Twigs which bear the Flowers shoot for the most part singly, not two together springing oppositely from the Bosoms of the Leaves, and carry but two Flowers; each Footstalk has a little Leaf placed at its Rise; the Plant has a grassy Taste: It grows in watery places and near to Rivulets, and in marshy Grounds and Ditches dried by the Summer's Heat.

Veronica nummularia. folio, Pyrenaica: Speedwell with a Money-wort Leaf.

Veronica Cymbalaria folio, verna: *Alfine Hederula folio* C. B. Pin. 250. *Alfines genus Fuchsis, folio hederula hirsuto* J. B. 3. 368. *Alfine spuria prior, sive morsus gallinae* Dodon. Pempt. 31. Spring Speedwell, with an Ivy-leaf, Ivy-Chickweed or small Henbit.

Veronica flosculis oblongis pediculis insidentibus, Chamadryos folio Moris. Hist. Oxon. Part 2. 322. *Alfine Chamadryfolia, flosculis pediculis oblongis insidentibus* C. B. Pin. 250. *Alfine serrato folio, glabro* J. B. 3. 366. *Alfine spuria, altera* Dod. Pempt. 31. Speedwell with a Germander Leaf, and little Flowers standing upon long Footstalks, or Germander-Chickweed.

Veronica flosculis pediculis oblongis insidentibus, Chamadryos folio alterno H. L. Bar.

Veronica verna, trifido vel quinquesido folio: *Alfine triphyllus, cerulea* C. B. Pin. 250. *Alfine folio profunde secto, flore purpureo sive violaceo* J. B. 3. 367. *Alfine parva, recta, folio Alfines hederaceae, sed ruta modo diviso*, Lob. Icon. 464. Spring Speedwell with a Trefoil or Cinqufoil Leaf, or Chickweed with a Leaf deeply divided, and a purple or violet coloured Flower.

Veronica terrestris, annua, folio polygoni, flore albo Morif. Hist. Oxon. Part 2. Annual Speedwell with a Knot-grass Leaf, and a white Flower.

Veronica Americana, erecta, frutescens, & ramosa, folio verbenae. Prod. Par. Bat. Veronica Americana, erecta, frutescens Parad. Bat. 241. Upright shrubby and branched American Speedwell with a Vervain Leaf.

Veronica Chia, Cymbalaria folio, verna, flore albo, umbilico virescente, Spring Speedwell of the Island Scio, with an Ivy-leaf and a white Flower, having a greenish concave Centre.

Veronica Constantinopolitana, incana, Chamdryos folio, Hoary Speedwell of Constantinople with a Germander Leaf.

Oriental Speedwell with a Ground-Ivy Leaf and a large Flower, *Veronica orientalis, foliis hederæ terrestris, flore magno.*

Veronica orientalis, erecta, Gentianella foliis, Upright oriental Speedwell with Gentianel Leaves.

Veronica orientalis, elatior, Gentianella foliis, flore majore albido: The higher oriental Speedwell with Gentianel Leaves, and a larger Flower of a whitish Colour.

Veronica orientalis, ocimi folio, flore minimo: Oriental Speedwell with a Basil Leaf and the smallest Flower.

Veronica orientalis, minima, foliis laciniatis: The smallest oriental Speedwell with jagged Leaves.

Veronica orientalis, polygala folio: Oriental Speedwell with a Milk-wort Leaf.

Veronica orientalis, Telephii folio: Oriental Speedwell with an Orpine Leaf.

There are several Species of the *Veronica* or Speedwell of very good use in Physick.

Veronica mas, supina & vulgatissima C. B. Male Speedwell: The Leaves of the male Speedwell are bitter, and redden sufficiently the blue Paper; which gives ground to believe that they contain a Salt, which approaches near in nature to the Salt of Coral: But that of the Speedwell is charg'd with more of an acid than the common Salt of Coral; and besides is joined with a larger Quantity of Sulphur: For by a chymical Analysis this Plant yields much Earth, a large Quantity of an Acid and Oil: These Principles render the Speedwell sudorific, vulnerary, cleansing, diuretic, and

proper to discharge the Lungs when obstructed with glutinous and purulent Matter: *Tragus* affirms, that in malignant Fevers two Ounces of the Spirit of *Veronica* mixed with a little Treacle, provoke Sweat copiously: This Spirit is obtained by distilling the Wine wherein the Speedwell has been in Digestion for some Days: The distilled Water of this Plant is an excellent Remedy in an Ulceration of the Lungs, against the Stone and Vapours, especially if in two Ounces of the Water a Drachm of the Leaves of the same Plant with an equal Quantity of the middle Bark of the *Solanum scandens seu Dulcamara* or bitter-sweet be infused: The Syrup and Extract of Speedwell purify the Blood, and are proper Remedies in cutaneous Distempers; but the Parts affected must at the same Time be washed with the Water of *Veronica*, in which some Vitriol has been dissolved: The frequent use of Glysters composed of one Pound of the Decoction of the Plant, one Ounce of Butter, with an equal Quantity of Sugar, is recommended as highly beneficial in cholick Pains, yea and boasted of as a Specific: Some boil the Speedwell with Camomil in Milk, and afterwards add Sugar: The *Veronica* is used by many after the manner of Tea: It is mixed with the vulnerary Plants in Broths, Potions, and Ptisans.

The Decoction of this Plant taken in a large Dose for some Time, cured a certain Woman of a Stone which had been lodged for sixteen Years in her left Kidney: The Stone was first discharged from the Kidney into the Ureters, and from thence into the Bladder, and at length, by the continued use of the same Decoction expelled. *Ephemer. Germ. Ann. 1. Observ. 107.*

The *Veronica* is singularly useful to remove Barrenness: A certain Woman of Quality, after seven Years Barrenness, by my Advice, says *Hoffman*, took for several Days the Powder of the Leaves of Speedwell in the Water of the same Plant, and immediately conceived: She afterwards communicated the Advice to some others of her Sex, and to ten or twelve it succeeded according to wish.

It is an excellent vulnerary: A Fistula of the *Thorax*, which had eluded the Force and

and Efficacy of every other Remedy, was at length cured by the internal Use of the Water of this Plant solely, without the Assistance of any other Medicine. *Ephemer. Germ. Ann. 13. Obs. 166.*

The famous *Gunther* having for many Years been afflicted with an incurable Ulcer in his Leg, with periodical Returns of excessive and intolerable Pain, found no Relief but by applying linen Cloaths dipped in the Water of Speedwell; immediately upon the Application the Inflammation ceased with all the concomitant Symptoms. *Ray.*

The Extract of *Veronica* mixed with the Extract of Juniper Berries, is a sovereign Remedy in all Obstructions of the *Viscera*, and in diseases of the Breast; I have frequently used it with good Success: It carries off the morbid Matter by Urine, but the use thereof must be preceded by laxative and aperitive Medicines: *Dr. Tancred Robinson*, extracted from the 73 *Epist. of G. Fabric. Hildanus.*

Simon Paulli says, that after the use of various Remedies for the Cure of the hard dry or crusty Scab, wherewith young Children are usually affected, he found nothing of greater Efficacy than the Application of linen Cloaths dipped in the Water of Speedwell, and squeezed that they might not distil upon the Arms and Thighs; by the Use of this his infant Patient was perfectly cured; he ordered however at the same Time that the Nurse should drink the Decoction of Fumitory in Whey.

There is prepared from this Plant a Conserve from the Tops with the Flowers, a distilled Water, a Syrup, and a Salt from its Ashes.

Veronica minor, foliis imis rotundioribus *Morif. Chamadrys spuria, minor, rotundifolia, C. B. Chamadrys spuria, latifolia J. B. Teucrium III. minus Tabern. Casalpin, Pona and Lobel* assure us, that this Species is of excellent use in removing Obstructions of the *Viscera*, and for the Cure of a *Chlorasis*, it may enter as an Ingredient in aperitive

Broths or Pisans, or be used after the manner of Tea.

Veronica supina, facie Teucrii pratensis Lob. Chamadrys spuria, major, angustifolia C. B. Chamadrys spuria, angustifolia J. B. Tragus affirms this Species aperitive, that it cures the Dropsy, the Whites, and a convulsive Cough.

Veronica aquatica, minor, folio subrotundo: Anagallis aquatica, minor, folio subrotundo C. B. Anagallis aquatica flore ceruleo, folio rotundiori, minor J. B. &c. Common Brooklime. This Plant is commonly called *Beccabunga Germanorum*; it is sharp, bitter and styptic, and gives a pretty deep red Dye to the blue Paper; which gives some reason to conjecture its Salt like in Nature to the *Oxysal diaphoreticum Angeli Salæ*: But in the *Beccabunga* this Salt is embarrassed with a larger quantity of Oil and Earth; so that this Plant from these Principles is Antiscorbutic, deterfive or cleansing, and vulnerary, antihydrotic and aperitive: *Forrestus* made great use of it in all scorbutic Cases, especially of the Syrup made of the Juice of this Plant, together with the Juice of the *Cochlearia*: The Juice of the *Beccabunga* taken from two Ounces to four in a Gla's of Whey, is of great Efficacy in scorbutic Distempers: If the Body is discoloured with Spots or any Member benumbed, the Person so affected may expose himself to a vaporous Bath prepared with this Plant: The Fomentation or a Cataplasim of the *Beccabunga* cures the Piles.

It agrees with the *Nasturtium aquaticum*, but is weaker: It heats and moistens moderately; is of chief Use in the Scurvy: It powerfully expels the Stone of the Kidneys or Bladder, provokes the monthly Courses, and forces out the dead Birth: Externally it is of use to cure hot inflamed Swellings and St. Anthony's Fire. *Schrod.*

Fabricius attests he knew a large Ulcer in a scorbutic Person, which had spread almost over the whole Leg, and penetrated almost to the Bone, successfully cured by applying only twice a Day by way of Cataplasim, the *Beccabunga* boiled in Ale.



Fig. 1. *Polemonium.*
Greek-Valerian or Jacobs ladder.

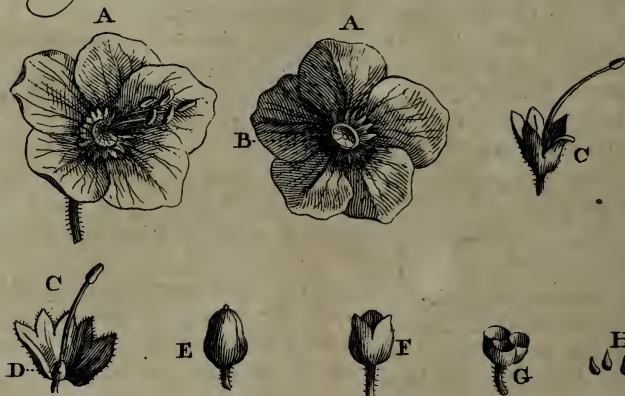
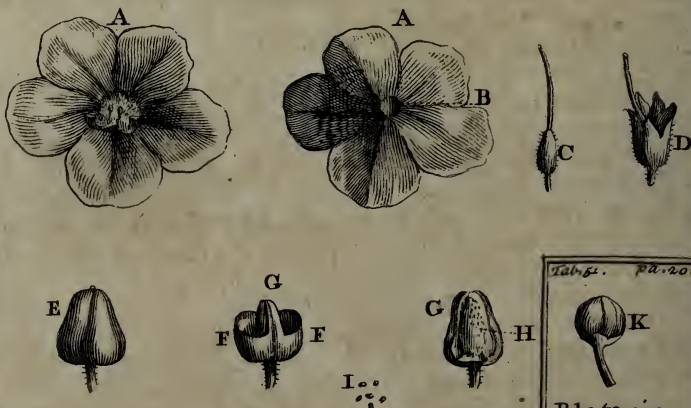


Fig. 2. *Verbascum. Mullein.*



Blataria.
moth-mullein.

TABLE XLIX. Fig. 3.

GENUS V.

Chrysosplenium, Golden Saxifrage,

IS a Plant with a Flower of one single Leaf A, shaped like a Wheel, cut into several Segments, and without a Flower-Cup: From its Centre the Pointal B rises, which is afterwards changed into a membranous Husk or Capsule C, forked and bivalve D, enclosing Seeds for the most part very small and minute E.

Its Species are,

Chrysosplenium foliis amplioribus, auriculatis: Saxifraga rotundifolia, aurea C. B. Pin. 309. *Saxifraga aurea Dodonci* J. B. 3. 707. *Saxifraga aurea* Dod. Pempt. 316. Golden Saxifrage.

This Plant creeps in watery Grounds, sending down into the Slime from its little Branches which lean upon the Ground, many long, white, capillary Fibres: The Stalks are slender, square, somewhat hairy, tender and weak, yet solid, about a Handbreadth or more in length, adorned with roundish Leaves standing two together oppositely placed, smaller than those of the Ground-Ivy, gently notched round the Edges, and likewise a little hairy: The Stalks which bear the Flowers stand more upright than the rest, but thinly furnished with Leaves, and at first divide into two Branches, without any Flower at the Angle of the Division, nor have they any Leaf placed at the Side: Afterwards each little Branch is subdivided into two others, and so on; and at their Angles of Separation a Flower stands for the most part, either without a Footstalk, or with one, but very short, single-leaved, and cut into four small, sharp, yellowish Segments, disposed into the form of a Cross, having yellow Threads and Chives in the Middle: At the Side of each Flower a little Leaf is placed: The Flower neither drops nor decays, but the Pointal which shoots from its Centre

changes into a forked seminal Vessel, which when ripe opens at the Top, and discloses some very small brownish Seeds: This Plant has no remarkable Taste; *John Bauhin* says it tastes somewhat sharp, bitterish, and styptic: It grows commonly near to Rivulets, in moist, shady and marshy Places; flowers in April, and in a little Time ripens its Seed.

Chrysosplenium foliis minoribus, subrotundis: Saxifraga rotundifolia, minor, aurea, montis aurei. H. R. Par. The lesser round-leaved golden Saxifrage.

Chrysosplenium foliis pediculis oblongis insidentibus: Saxifraga aurea, foliis pediculis oblongis insidentibus Raii, Hist. 207. Golden Saxifrage, with Leaves standing upon long Footstalks.

This Species differs from the first, in that it does not spread it self upon the Earth after the same manner, that it is larger in all its Parts, Stalk, Leaves, and Seed, and in that its Leaves stand upon Footstalks an Inch and a half or two Inches long, and are more elegantly notched, with broad Segments shaped like a Heart: It Flowers at the same Time, and grows in the same Places as the first.

Chrysosplenium orientale, Gei facie, magno fructu.

TABLE L. Fig. 1.

GENUS VI.

Polemonium, Greek Valerian, called by the Vulgar, Ladder to Heaven, or Jacob's Ladder,

IS a Plant with a Flower of one single Leaf A, shaped like a Wheel, and cut into several Segments: From its Flower-Cup C, the Pointal D rises, which is fixed like a Nail in the middle of the Flower B, and afterwards changes into a roundish Fruit E, opening into three Parts commonly F, partitioned into three seminal Cells G, enclosing for the most part oblong Seeds H.

I know but one Species of the *Polemonium*, diversified in the Colour of its Flower.

Polemonium vulgare, caeruleum: *Valeriana caerulea* C. B. Pin. 164. *Valeriana Græca quorundam, colore caeruleo* J. B. 3. Part 2. 212. *Valeriana Græca* Dod. Pempt. 352. Greek Valerian, or Jacob's Ladder, with a blue Flower.

The Root is fibrous, slender, of a whitish Colour, and bitter to the Taste: The Leaves which rise immediately from the Root are composed of several Pairs (ten sometimes or twelve) of little Wings set on each side of the middle Rib, with one single Wing in which the Rib terminates, and continue green throughout all the Winter: Each Wing is a Finger in length, and half a Finger broad, from a broad Base gradually narrowing into a sharp Point, having three remarkable Nerves running lengthways, smooth, green, not at all cut or notched round the Edges: The same Root sends up several round, channelled, hollow, and hairy Stalks, about the thickness of a Finger, and two Foot high, branched and adorned with Leaves standing singly at certain Intervals: At the Top of the Stalk and little Branches the Flowers stand thick together upon short and slender Footstalks, nodding downwards; they are single-leaved, and cut into five blunt Segments, of a beautiful blue Colour, containing within five Threads tipp'd with yellow Clives, with an oblong three-forked Pointal of a deeper Blue: The seminal Vessel is shaped like a Top, and is divided into three Cells, enclosing small oblong blackish Seeds: The Plant is clammy and bitter to the Taste: It flowers in May.

Polemonium vulgare, album: *Valeriana Græca quorundam, colore albo* J. B. 3. Part 2. 212. *Valeriana alba* C. B. Pin. 164. Greek Valerian with a white Flower.

Polemonium flore variegato: *Valeriana Græca, flore ex albo & caeruleo variegato* H. L. Bat. Greek Valerian with a Flower of a white and blue intermixed.

The *Polemonium* is so imperfectly described by the Ancients, that our modern Bo-

tanists are at a Loss to know certainly what it is: Some make it a Species of the *Valerian*, others will have it to be a Species of the *Lychnis* or *Campion*: As for me, says Dale, I choose to follow that great and accurate Botanist Mr. Tournefort, who gives the Name of *Polemonium* to this Plant, and to subjoin the Description of *Dioscorides*.

The *Polemonium* has slender Branches, winged upon each Side: Its Leaves are larger than those of Rue, and longer, approaching near to those of Calamint or *Sanguinaria*; at the Tops of the Branches hang clusters of Fruit containing a black Seed, &c. The Curious may be more fully satisfied by consulting *Dioscorides*, cap. 8. lib. 4. and his Commentator *Matthiolum*.

The Decoction of the Root of this Plant in Wine, says *Dioscorides*, is good against the Stingings or Bittings of venomous Animals, and in a Dysentery; it is taken in Water in a Stoppage of Urine and in sciatic Pains; and in Vinegar to the Quantity of a Drachm, is a Remedy against the Diseases of the Spleen; chewed and held in the Mouth, it asswages the Tooth-ach. *Diosc.* It is an excellent vulnerary Plant. Dale.

TABLE L. Fig. 2.

GENUS VII.

Verbascum, Mullein,

IS a Plant with a Flower of one single Leaf A, shaped like a Wheel, and cut into several Segments: From its Flower-Cup D the Pointal C rises, which is fixed like a Nail in the middle of the Flower B, and afterwards changes into a conical Fruit E, divided into two seminal Cells FF, by the middle Partition G, enclosing Seeds for the most part small and angular I, affixed to the Placenta H.

Its Species are,

Verbascum mas, laisfolium, luteum C. B. Pin. 239. *Verbascum vulgare, flore luteo, magno, folio maximo* J. B. 3. App. 871. *Verbascum laius*. Dod. Pempt. 143. White Mullein, High Taper, Cows Lung-wort.

The

The Root is white and woody, about an Inch thick, small in proportion to the bigness of the Plant, and sends out some large Fibres from its Sides: Next to the Root many Leaves shoot up, a Span in length, and four Inches broad, covered upon both Sides with a soft and hoary Down, and gently notched round the Edges: It has but one Stalk, for the most Part, three or four Foot high, sometimes higher, hairy, stiff, and full of Pith, adorned with numerous Leaves irregularly placed, like to those which stand next the Root, but smaller, growing immediately to the Stalk, and as it were embracing it with long Appendices lengthened out upon each Side, which makes it appear as it were winged: The Flowers grow thick at the Top of the Stalk in a long crooked Spike, they are single-leaved, but cut into five blunt Segments, imitating so many distinct Leaves: Within are contained five yellow Threads tipp'd with reddish Chives, surrounding a greenish Pointal: The Footstalks of the Flowers are very short, the Flower-Cups hairy, and divided into five sharp Segments: The seminal Vessel is of a conical Figure, and covered over with a hairy Down easily rubbed off; it is partitioned into two Cells which enclose small black Seeds: It grows upon the Borders of Fields, upon the Banks of Ditches, and sometimes upon Walls and Ruins, in many Parts of England.

Verbascum femina, flore albo C. B. Pin. 239. *Verbascum maximum meridionalium, odoratum, album* J. B. 3. App. 871. *Maximus odoratus meridionalium Thapsus barbatus, femina, flore albo* Lob. Icon. 560. Female Mullein with a white Flower, or sweet-scented white Mullein.

This Species, called the greatest and sweet-scented white Mullein of the southern Climates, excells all the other Species of the Mullein, as in the bigness of its Leaves, so likewise in its agreeable Odour, although it seems only to be a variety of the common Mullein: It is found sometimes with yellow, sometimes with white Flowers, cut into six Segments furrowed with little red Streaks or Lines, and of a most agreeable Smell; its Leaves are larger and broader,

its Root thick, nor does there appear any other difference.

As *Lobel* himself owns this Species to be only a Variety of the common *Phlomos* or Mullein; and whereas I could not find it either in *Piedmont* nor *Narbonne*, and it being certainly not to be found in *England*, I may justly doubt, says *Mr. Ray*, whether there be any such Plant; yet the Figure that is given of it, taken most probably from the Plant it self, and its being mentioned by so many Botanists, both seem to perswade the contrary; yea, both the Varieties are extant in the Catalogue of the Royal Garden at *Paris*. *Ray*.

The Figure which *Lobel* has given of this Plant is not exact; nevertheless we easily perceive he designed to distinguish this Species by those very sharp-pointed Leaves which accompany the Flowers: We must refer to this Species the *Verbascum album, femina, albo flore* of *Dodoneus*, which *Caspar Bauhin* has ranked under the *Verbascum Lychnidis flore albo, parvo*: The Figure of *Dodoneus* is copied from that which *Fuchsius* has given under the title of the *Verbascum candidum femina Fuchsi*, and *Caspar Bauhin* has confounded this *Verbascum* with the Species of which we now speak, tho' it differs nothing from the *Verbascum mas, latifolium, luteum*: *Caspar Bauhin* had no reason to believe that the *Verbascum flore albo primum. Tabern.* and the *Verbascum album secundum* of the same Author, were only varieties of the same Plant: The first of these two Species is the same with the *Verbascum* of which we now speak; but the second is altogether different. *Tournefort Hist. des Plant. &c.*

Verbascum femina, flore luteo, magno C. B. Pin. 239. *Verbascum maximum meridionalium, odoratum, luteum* J. B. 3. App. 871. *Verbascum maximum, album, femina, flore subpallido* Lob. Icon. 561. Female white Mullein with a large yellow Flower.

This Species is chiefly distinguished by its Leaves, which are not so white, and are more sharp-pointed than those of the first, especially if we examine those that grow towards the Top of the Stalk, and accompany the Flowers: These Leaves terminate in a sort of fine slender Tail, which is very

ill represented in the Figure given by Lobel: The Flowers of the Plant are yellow, and about an Inch and a half in Diameter; there are some Stalks which are found sometimes to bear white Flowers; it is without doubt the Species which Lobel calls *Maximus odoratus Meridionalium Thapsus barbatus, fœmina, flore albo*: The *Verbascum nigrum Fuchsi*, and the *Verbascum majus Tragii*, which Caspar Bauhin has ranked under this Species, must be reduced to the first: The *Verbascum luteum Tabernemontani*, is the same with the *Verbascum pulverulentum, flore luteo, parvo* *J. B.* It is difficult to determine whether *Anguillara* meant the *Verbascum fœmina, flore luteo magno*, as Caspar Bauhin pretends he did.

Verbascum angustifolium, ramosum, flore aureo, folio crassiore *J. B.* 3. App. 872. *Verbascum foliis viridibus, crassioribus* *Morif. Hist.* 488. Narrow-leaved, branched Mullein, with a Flower of a gold Colour, and a thick Leaf.

Verbascum nigrum, flore ex luteo purpurascente. *C. B. Pin* 240. *Verbascum nigrum, flore parvo, apicibus purpureis.* *J. B.* 3. App. 873. *Verbascum nigrum* *Dod. Pempt.* 144. Black Mullein with a Flower from a yellow inclining to a purplish Colour, or Sage-leaved black Mullein.

The Root is like that of the common Mullein, as is the Stalk, rising no higher, branched, channelled, of a purplish Colour, but less hairy: The Leaves are smaller, not so numerous, alternately placed, and hang upon reddish Footstalks two or three Inches long, like unto those of Sage, but much larger, of a stinking Smell, and of a greenish Colour, less hairy, and gently notched: The Flowers are of a deep saffron Dye, containing within hairy purplish Threads: The Seed is like that of the common Mullein: It grows in many places in Cambridgeshire; and elsewhere too in England.

Verbascum foliis viridibus, annuum, floribus luteis *H. L. Bar.* Annual Mullein with green Leaves, and yellow Flowers.

Verbascum nigrum Dioscoridis *Lob. Icon.* 562. Black Mullein of Dioscorides.

Verbascum nigrum, folio papaveris *Cornicul.* *C. B. Pin.* 240. *Verbascum crispum & sinuatum* *J. B.* 3. App. 872. *Verbascum In-*

tubaceum *Tabern. Icon.* 565. Black Mullein, with a Leaf like that of the horned Poppy.

The lowermost Leaves of this Plant are about a Hand-breadth and a half long, sinuated and curled like those of the horned Poppy, and of a whitish Colour; but those that stand higher are shorter, and terminate in a sharp Point, nearly resembling Ivy Leaves, covered with a sort of Dust upon both Sides, but more underneath; they have no Footstalks, but embrace the Stalk to which they are immediately joined with Wings: The Flowers are small and of a yellow Colour, single-leaved, and cut into five Segments, containing within two purplish hairy Threads, tipped with yellow Chives: It grows commonly in Italy by the Sides of the publick Roads: John Bauhin found it at Montpelier, where he says it flowers in Autumn.

Verbascum pulverulentum, flore luteo, parvo *J. B.* 3. App. 872. *Verbascum mas, angustioribus foliis, floribus pallidis* *C. B. Pin.* 239. Hoary or dusty Mullein.

The Root is white, twiggy, but not thick in proportion to the bigness of the Plant, and of a bitter Taste: The Stalks rise singly from each Root, three, sometimes five Foot in height, round, and covered over, together with the Leaves and Flowers, with a whitish Dust which is easily rubbed off; they are branched from the Bottom to the Top, and the little Branches terminate in long Spikes of Flowers surrounding the Stalk upon all Sides, and almost equalling it in height: The lowermost Leaves are a Foot, sometimes a Foot and a half in length, and half a Foot broad; they have no visible Footstalks, but from a narrow beginning gradually widen, and again by the same Degrees lessen, till they terminate in a sharp Point; they are somewhat notched round the Edges, and grow thick upon the Stalk in an alternate Order; those that shoot first are woolly upon both Sides, but such as shoot later are smooth; if rubbed they emit a heavy and disagreeable Smell, and are of a grassy Taste mixed with some Bitterness: The Flowers grow thick, and as it were in Clusters at the Tops of the Stalks and little Branches upon short Footstalks; they are single-leaved, cut into five roundish Segments, of a pale yellow

yellow Colour, containing within some woolly *Stamina* tipp'd with saffron-coloured Chives, and a Pointal: The Flower is finaller than that of the common Mullein, but not in the Proportion that *John Bauhin* says, who affirms the Flower of the common Mullein to be four Times larger: It grows near to *Norwich* and elsewhere in *England*.

Verbascum Lychnitis, flore albo, parvo C. B. Pin. 240. Verbascum flore albo, parvo J. B. 3. App. 873: Phlomos mas, alter, Verbascum Lychnite Matthioli Lob. Icon. 562. White flowered Mullein.

It grows in the same Places with the yellow Mullains, nor is it easily to be distinguished, so near is the Appearance and outward Habit: The Root is alike, and the Stalk hollow, branched, and woolly, but the Leaves are napped with that hoary Down underneath only; above, (those tender and small Leaves excepted, which are placed near to the Flowers) they are smooth, of a dark green Colour, and sharp-pointed: The Flowers are small, disposed upon the Branches after the manner of the dusty Mullein, of a white Colour, the Threads are hairy, of a box Colour, tipp'd with red Chives: The Flowers are sometimes cut into five, sometimes into six Segments: It is found commonly in *Kent*.

Verbascum ramosum, perenne, Parisiensium: Branchy, perennial Mullein of *Paris*.

Verbascum Alpinum, perenne, nigrum, flore albo, staminibus purpureis H. R. Par. Verbascum perenne, nigrum, floribus albis Mor. H. R. Bles. Verbascum Alpinum, perenne, nigrum, flore ex albo purpurascente Joncq. Hort. Black, perennial mountain Mullein, with a white Flower and purple Threads.

Verbascum ramosum, floribus albis, parvis, Moris. H. R. Bles. Branchy Mullein with small white Flowers.

Verbascum humile, Alpinum, villosum, Boraginis flore & folio: Sanicula Alpina, foliis Boraginis, villosa C. B. Pin. 243. Auricula ursi Myconi pilosa, carulea J. B. 3. App. 869. Auricula ursi Myconi Lugd. 837. Low and hairy mountain Mullein, with a Leaf and Flower like that of Borage.

It emits many slender capillary Roots of a dusky Colour, which fix in the Rocks,

and are of an astringent Taste; round which grow several Leaves lying flat upon the Ground, somewhat like to those of Borage, a little jagged round the Edges, rough, wrinkled, thick, full of Nerves, and hairy, especially near to the Roots: The same Leaves are hairy, both upon the upper and under Side, and also round the Edges, and the Hairs are of a brownish Colour: From among the Leaves two or three round, hairy and solid Stalks rise, about a Span in length, full of Juice, and of a purplish Colour, of an astringent Taste, with a mixture of Sweetness; at the Tops whereof the Flowers stand, which are cut into five Segments, and of a blue Colour; in the middle of the Flowers are yellow *Stamina* or Threads, rising as it were out of a Vessel shaped like a Grain of Barley, but larger, which is placed at the Bottom of the Flower: It grows in shady mountainous places, and sometimes in such as are moist, particularly upon the *Pyrenean Mountains*.

Verbascum humile, Alpinum, villosum, Boraginis flore albicante: Sanicula Alpina, foliis Boraginis, villosa, flore albicante H. R. Par. Low and hairy mountain Mullein, with a Borage Flower of a whitish Colour.

Verbascum Creticum, spinosum, frutescens: Verbascum spinosum Creticum D. I. Monnel. Lobel. Illustr. 113. Glasitvida prima di Candia. Pon. Bald. Ital. 114. Leucoium spinosum. P. Alp. Exot. 36. Leucoium Creticum, spinosum, incanum, luteum. C. B. Pin. 201. Shrubby and thorny Mullein of *Candy*.

Verbascum Gracum, fruticosum, folio sinuato, candidissimo: Shrubby Mullein of *Greece* with a very white sinuated Leaf.

Verbascum orientale, candidissimum, undulatum, crispum, ac veluti verrucosum.

Verbascum orientale, maximum, candidissimum, ramis Candelabrum amulantibus: The greatest and most white oriental Mullein, with Branches shaped like a Candlestick.

Verbascum orientale, conyza folio, flore micante, e ferrugineo ad aureum colorem vergente: Oriental Mullein with a Flea-bane Leaf, and a glittering or shining Flower, from a rusty inclining to a golden Colour.

Verbascum orientale, Betonica folio, flore magno: Oriental Mullein with a Betony Leaf and a large Flower.

Verbascum orientale, angusto & oblongo folio: Oriental Mullein with an oblong and narrow Leaf.

Verbascum orientale, foliis subrotundis, candidissimis: Oriental Mullein, with very white roundish Leaves.

Verbascum orientale, Sophia folio: Oriental Mullein with a Flixweed Leaf.

Some will have it that it is called *Verbascum*, or rather *Barbascum*, from that hoary Beard or Down wherewith the Leaves of the common Mullein are usually covered.

'Tis the first Species, usually called the *Thapsus Barbatus*, which is most commonly used in the Shops: Its Leaves are of a saltish and styptic Taste; they smell like Elder, and give a sufficient Tincture of Red to the blue Paper: The Flowers give it a deeper red Dye, they are likewise styptic, but sweet: There is some probability that the Salt of this Plant approaches in some Measure to the Salt of Coral; but the Salt of the white Mullein contains much of an Acid, and a little Salt-Armoniac, but united with a large Quantity of Sulphur and Earth; so that it powerfully asswages Pain, and is an excellent vulnerary Plant.

The Decoction of this Plant is used by some in cholic Pains, in a Dysentery and Diarrhæa: The Decoction of it in Milk is of use for the Cure of the *Tenesmus* and the Piles; two Cupfuls of it must be taken inwardly each Day, part by way of Glyster and Fomentation; some add thereto the Leaves of Oak and Silver-weed: To stop a Diarrhæa, or cure a Dysentery, the *Verbascum* must be boiled in that Water wherein the Blacksmiths extinguish their hot Irons: It is affirmed that Aloes dissolved in the Juice of this Plant, and thickned afterwards to the Consistence of an Extract, does not in the least irritate the Piles, nor occasion any Flux of Blood; but it is more safely corrected by dissolving it in Water, and separating by Filtration that resinous Part which remains upon the Paper, and causes those violent Pains and Hemorrhages; the filtrated Solution is afterwards evaporated to the Consistence of an Extract: *Tragus* and *Matthiolus* affirm that the distilled Water of the Flowers of this Plant is excellent for the Cure of

Burnings, the Gout and St. Anthony's Fire, and of all cutaneous Distempers: This last Author prescribes a Cataplasim of the Leaves of this Plant together with those of Leeks, Yolks of Eggs, and some Crum of Bread, as effectual for the Cure of the Piles when much swelled and painful.

According to *Grembs* the *Thapsus Barbatus* is a Specific for the Cure of a Tympany.

According to *Schroder* it is of chief Use in all Diseases of the Breast, a Cough, Spitting of Blood, and to assuage and remove griping Pains of the Belly.

Mr. Ray affirms that the Leaves of the *Verbascum* put between the naked Sole of the Foot and the Shoe some Days before the usual return of the menstrual Purgation, gently move and bring down the Courses.

TABLE LI.

GENUS VIII.

Blattaria, Moth-mullein,

THE Moth-mullein differs from the Mullein in the form of its Fruit, which is more round K.

Its Species are,

Blattaria lutea, folio longo laciniato. C. B. Pin. 240. Blattaria Dod. Pempt. 145. Blattaria lutea. J. B. 3. App. 874. Yellow Moth-mullein with a long jagged Leaf.

It rises with a strong and upright Stalk, stretching sometimes to the height of a Man, smooth, about an Inch thick, and very much branched: The Flowers are disposed upon the Branches in an alternate Order, supported by hairy Footstalks above an Inch in length, of a deep yellow Colour, their Bottoms within are covered with a fine Down: The Threads too are downy, and are tipp'd with red Chives: The Seed-Vessels are round and open into two Parts; the Seed is black: At the Footstalk of each Flower is placed a sharp-pointed Leaf, an Inch and more in length: The other Leaves, which are very numerous, are narrower than those of the *Verbascum*,

basum, of a dark green Colour, and shining above, not in the least woolly; jagged round the Edges, and of a most disagreeable Smell: The Root is shaped like a Turnep, of a white Colour, and of a Taste somewhat aromatic: It is found in several Parts of Italy and France, and in Germany: It flowers from the Month of June to September; the Seed is ripened in the mean Time.

Gerard and Parkinson of this one Plant have made two; the one Gerard calls *Blattaria Plinii*, and Parkinson *Verbascum nigrum vulgare*; the other they call *Blattaria flore luteo*.

Blattaria alba C. B. Pin. 241. *Blattaria flore albo*, J. B. 3. App. 874. *Blattaria flore albo*, perperam *Verbascum semina vulgo* Lob. Icon. 563. Moth-mullein with a white Flower.

Blattaria purpurea C. B. Pin. 241. *Blattaria flore caeruleo vel purpureo*. J. B. 3. 875. *Blattaria flore purpureo*. Lob. Icon. 565. Moth-mullein with a blue or purple Flower.

The Root is thick and long, juicy, covered with a reddish Bark, and filled with a white Pith, and of a sweetish Taste: The Leaves, according to Parkinson, are broader and shorter than those of the yellow Moth-mullein, more hairy, little or rather not at all indented round the Edges, and sharp-pointed: According to Caspar Bauhin the Leaves are of a darker Colour, not jagged, and very little indented: The Flower is sometimes of a worn-out Purple, sometimes of the Colour of a black Violet, sometimes of a pale Red: That which bears a blue or purple Flower, flowers in June or July: The Stamina or Threads, as Parkinson remarks, are yellow; the little Heads or Fruit smaller than that of the yellow Moth-mullein; the Stalks lower, yet often branched; the Root out-lives many Years.

Mr. Ray observes that the Leaves of this Plant which he cultivated, were not of a blackish Colour, but rather greyish, as Parkinson rightly remarked; and that both in Colour and Notching they nearly resembled the *Conyza major* of Matthioli.

Blattaria flore obsolete colore purpurascente.

C. B. Pin. 241. Moth-mullein with a Flower of a worn-out purplish Colour.

Blattaria flore nigra violæ, colore eleganti nitente. C. B. Pin. 241. Moth mullein with a black violet Flower, of an elegant shining Colour.

Blattaria flore obsolete caeruleo H. Edinburg. Moth-mullein with a Flower of a decayed blue Colour.

Blattaria flore ferrugineo. H. R. Par. Moth-mullein with a Flower of the Colour of rusty Iron.

Blattaria Anglicana, perennis, flore obsolete phæniceo. H. R. Par. Perennial English Moth-mullein, with a Flower of a faded crimson Colour.

Blattaria magno flore. J. B. 3. 875. Moth-mullein with a large Flower.

This Species is thus described by Parkinson under the Title of the *Blattaria lutea major sive Hispanica*, the greater yellow Moth-mullein: Its Leaves are longer and greener than those of the former (*Blattaria lutea odorata*) and rounder at the Ends: The Stalk is stronger and higher, whereon, besides the Leaves, grow towards the Top many Flowers of a gold yellow Colour, not set so thick together as the former, but larger, with some purplish Threads in the Middle, formed somewhat like a Fly, after which come in their Places little round Heads, two, three, sometimes more together, but most usually one, wherein lie small dusky Seeds: The Root is not great or full of Fibres, but perisheth every Year after that the Seed is ripened.

Blattaria folio Verbasci, flore luteo, amplo Moris. H. R. Bles. Moth-mullein with a Leaf like to that of the Mullein, and a large yellow Flower.

Blattaria Ragusina, incana, multifida Moris. Oxon. Part 2. Hist. 490. *Blattaria incana, multifida* Boccon. Rarior. Plant. 61. Hoary Moth-mullein, with Leaves deeply infected.

The Seed-Vessel, Seed and Flowers determine this Species to be a Moth-mullein: But the Leaves, which are large, and cut into many, and those deep, Incisions, from a green inclining to a whitish Colour, somewhat resemble those of the common Pontic Wormwood: Beccone had a Branch of

of this Plant without the Root from *Joannes Maria Ferro*, a *Venetian Apothecary*, which he affirmed to have been brought from *Ragusa*.

Blattaria perennis *Cretica, incana, foliis binis conjugatim positis, uno majore extremum claudente. Moris. Hist. Oxon. Part 2. 489. Arturo di Candia, overo verbasco fruticoso auriculato. Pon. Bald. Ital. 120. Verbascum foliis subrotundis, flore Blattaria. C. B. Pin. 240.* Perennial and hoary Candy Moth-mullein, with Leaves growing in Pairs, and one greater than the rest, which terminates the Stalk.

Blattaria orientalis, bugula folio, flore ma-

ximo, virescente, lituris luteis in semicirculum striato: Oriental Moth-Mullein with a Bugle Leaf, and a large greenish Flower streaked with yellow semicircular Lines.

Blattaria orientalis, verbasci folio, flore maximo, intense violaceo: Oriental Moth-mullein with a Mullein Leaf, and a large Flower of a deep violet Colour.

Blattaria orientalis, Agrimonia folio: Oriental Moth-mullein with an Agrimony Leaf.

The Moth-mullein, where-ever it is laid, says *Pliny*, gathers Moths to it; and therefore at *Rome* it was called *Blattaria*.

S E C T. VII.

Of Herbs with a Flower of one single Leaf, shaped like a Wheel, whose Pointal changes into a soft Fruit.

TABLE LII.

GENUS I.

Solanum, Nightshade,

IS a Plant with a Flower of one single Leaf A B, shaped like a Wheel, and cut into several Segments: From its Flower-Cup E F, the Pointal G rises, which is fixed like a Nail in the Middle of the Flower C D, and afterwards changes into a Fruit almost round or oval H I, soft and juicy, enclosing Seeds K L, for the most Part flat M N.

Its Species are,

Solanum officinarum, acinis nigricantibus. C. B. Pin. 166. Solanum hortense sive vulgare, acinis nigris J. B. 3. 608. Solanum hortense, baccis nigricantibus. Dod. Pempt. 453. Solanum nigrum, vulgare Cord. Hist. 158. Nightshade of the Shops, or common Nightshade with a black Fruit.

Its Root is half a Foot long, about three or four Lines in thickness at the Head, fibrous, hairy, and of a whitish Colour: The Stalk, which is full of Pith, rises to the height of a Foot and a half, is three Lines in thickness, greenish, rough, angular, usually divided at the Distance of nine or ten Inches from the Root into several Branches, stretching out upon its Sides, and oft-times bending downwards, set with Leaves disposed in an alternate Order, which rise with a Tail about half an Inch long, widen to an Inch and a half in breadth, and are two Inches long, sharp-pointed, rather waved than notched, of a dark green Colour, smooth and shining; the Footstalk lengthens it self into a Rib, the Nerves whereof bend and wind till they lose themselves in the Extremities of the Leaves: Those that grow upon the Divisions of the Branches are smaller, more round and pointed to the Top: The Flowers don't rise usually from the Bosoms of the Leaves, as in most other Plants, but from the Branches themselves a little below the Leaves; they stand five, sometimes eight





eight together upon one common Footstalk, about an Inch and a half in length, which divides it self towards the Extremity into several smaller Footstalks, very slender, and about three or four Lines long, each whereof supports a Flower: The Flowers are white, single-leaved, three Lines, or three and a half in Diameter, bored at the Bottom, where they are of a yellowish Colour, and as it were terminated in a Ring, divided or cut into five Segments, long, pointed, and disposed so as to resemble a Wheel: From the Sides of the Bottom of the Flower rise very short *Stamina* or Threads, tipp'd each with a yellow Chive, dusty, narrow, and a Line and a half long: All these Chives unite, and hide the Bottom of the Pointal, the Extremity whereof is almost round, of a pale green Colour, pointed into the Hole of the Flower, and fixed in the Bottom of the Flower-Cup: The Flower-Cup is a small Funnel of a greenish Colour, cut into five blunt Points: When the Flower decays and drops, the Pointal becomes or changes into a spherical Fruit, pretty hard, at first of an olive Green, but afterwards black, about four Lines in Diameter, full of a limpid Juice, and contains many whitish Seeds, one Line in length, flat, rounded, and bordered with a small greenish Flesh, easily separated, and disposed in a Ring round the *Placenta*, which is in the Middle of the Fruit, and distributes Nourishment to all these little Grains or Seeds.

The Root is almost insipid; the Leaves have a saltish Taste; the Fruit has a sharp and winy relish: The whole Plant emits a narcotic Odour, yet not altogether so strong as the other Species.

It flowers in *July*, *August*, and *September*; the Fruit is ripe in *September* and *October*.

John Bauhin and *Cordus* took the Flower of this Plant to be pentapetalous, or composed of five distinct Leaves, whereas 'tis certain that it is single-leaved: It is commonly believed that the Seed or Grain of this Species produces those which bear a red and yellow Fruit; but besides that Experience demonstrates the contrary, these Species are distinguished by other Circum-

stances more particular, as will appear from their Description.

Solanum officinarum, *acinis puniceis*. *C. B. Pin.* 166. *Solanum hortense* sive *vulgare*, *acinis rubris* *J. B.* 3. 608. *Solanum hortense*, *baccis rubentibus* *Dod. Pempt.* 453. *Solanum puniceum*, *Cord.* 153. Nightshade with a reddish Fruit.

This Species is commonly larger than the preceding: Its Root is thicker: Its Stalk or Stem two Foot high, angular, and as it were leafy or winged, divided sometimes from the Bottom into Branches, which rise obliquely, and stretch much out upon the Sides: Its Leaves approach nearer to the Figure or Shape of the Steel of a Lance than those of the former; they are less waved round the Edges, and more evidently hairy: Its Flowers are altogether the same; but the Fruit is oval, four Lines long, and three broad, of a worn-out red Colour; and it has a stronger narcotic Smell.

Solanum officinarum, *acinis luteis* *C. B. Pin.* 166. *Solanum hortense* sive *vulgare*, *acinis luteis* *J. B.* 3. 608. *Solanum hortense*, *baccis lutei coloris* *Dod. Pempt.* 453. *Solanum luteum* *Gesfn. Hort.* 281. Nightshade with a yellowish Fruit.

Its Root is the same with that of the two preceding Species: Its Stalk is two Foot high, hairy, angular, and as it were leafy: Its Leaves are much more round, and as it were deeply notched, of a pale green Colour, hairy upon both Sides: Its Flowers differ nothing from those of the former: But its Fruit which is oval, four Lines long, three broad, at first green, and streaked with white Lines lengthways, is yellow when ripe: Their Juice is sowerish and of a winy Taste, very little coloured; the Seeds are bordered with a small yellowish Flesh, and, says *Tournefort*, it appeared to me of a stronger narcotic stupifying Smell than either of the two former; notwithstanding these two last Species act upon the blue Paper after the same Manner.

Solanum officinarum, *acinis è luteo virescentibus* *H. L. Bat.* Nightshade with a greenish Fruit.

Solanum bacciferum, *vulgari simile*, *Africanum*, *foliis frequentius & profundius crenatis* *Prod.*

Prod. Par. Bat. Berry-bearing *African Nightshade*, like to the Common, with Leaves cut into more and deeper Notches.

Solanum bacciferum, vulgari simile, maximum, Surinamenſe *Prod. Par. Bat.* The greatest Berry-bearing Nightshade of *Surinam*, like to the common Sort.

Solanum Luſitanicum, perenne, folijs amplis, profunde crenatis, fructu rubro: Perennial Nightshade of *Portugal*, with large Leaves, deeply notched, and a red Fruit.

Solanum scandens ſeu Dulcamara. C. B. Pin. 167. *Glycyciros ſive amara dulcis J. B.* 2. 109. *Dulcamara* *Dod. Pempt.* 402.

It ſends up ſlender, woody, brittle Twigs, two or three, yea ſometimes five or ſix Foot long, which wind or wreath themſelves round adjoining Hedges or Shrubs, otherwiſe lie flat upon the Ground: The Bark of the young Branches is green, but that of the older and of the Stumps is rougher, and of a whitish aſhy Colour outwardly, but within of a beautiful Green: The Pith is fungous: The Leaves grow in an alternate order, like thoſe of the common Nightshade, of a dark green Colour, having ſometimes at their lower Part two pieces of Leaves ſhowing like Ears, and ſtand upon Footſtalks about an Inch long: The Flowers ſtand ſeveral together in ſmall Umbels, they are of a ſtinking Smell, but of a beautiful blue purple Colour, ſometimes white, cut into five narrow Segments; in the Middle ſtand the *Stamina* or Threads tipp'd with yellow Chives, which unite and form an Umbo or Boſs: The Flowers are ſucceeded by Berries of a ſcarlet Colour when ripe, of an oval Shape, ſoft, and of a diſagreeable Taſte, full or ſmall, flat, whitish Grains or Seeds: The Root is fibrous: It delights in wateriſh Soils, and is therefore often found near to Ditches: It flowers in *June* and *July*.

Solanum scandens, ſeu Dulcamara, flore albo *C. B. Pin.* 167. Woody Nightshade or Bitterſweet with a white Flower.

Solanum scandens ſeu Dulcamara, flore pleno: Dulcis amara flore pleno. Eſſ. Bitterſweet with a double Flower.

Solanum scandens, folijs variegatis H. R. Par. Climbing Nightshade with Leaves of various Colours.

Solanum lignoſum ſeu Dulcamara marina Raii, Synop. 149. Woody Nightshade or Sea Bitterſweet.

Solanum frutiçoſum, bacciferum C. B. Pin. 166. *Strychnodendros J. B.* 3. 814. *Pſeudocapſicum* *Dod. Pempt.* 718. Tree Nightshade.

It is a Shrub about four or five Foot high, with a ſlender Stock covered with an aſh-coloured Bark; but that of the Branches is green: The Leaves are like thoſe of the Spindle-Tree, of a dark green Colour, and ſomewhat ſharp when taſted: The Flowers are white, like thoſe of the common or garden Nightshade, cut into five Segments bending outwards, containing within ſo many Threads tipp'd with yellow Chives, conjoined and united; each Flower is ſucceeded by a Berry equal in bigneſs to the Fruit of the Winter Cherry, of a ſcarlet Colour, enclosing yellow, orbicular and flat Seeds: The Root has many yellow Fibres ſhooting from it.

In our Climate it loſes its Leaves in the Winter: The whole Plant, (Leaves, Flowers, and Seeds) has neither Smell nor Taſte.

The Place of its native Growth is uncertain; however 'tis believed a native of *America*: With us it flowers for the moſt part in *July* and *Auguſt*, rarely in *June*: Its Fruit is ſeldom ripened before the Winter Solſtice, or Chriſtmas.

Solanum tuberoſum, eſculentum C. B. Pin. 167. *Prodr.* 89. *Papas Americanum J. B.* 3. 621. *Virginia* Potatoes.

The Stalk is two or three Cubits high, five or ſix ſometimes, according to *Cluſius*, an Inch thick, juicy, roundiſh, chanelled, ſomewhat hairy, of a green Colour, marked with many reddiſh Spots, hollow, and branched, (the Branches are weak, and if not propped lie flat upon the Ground) uneven becauſe of thoſe membranous Wings of a dark purple Colour, ſometimes curled, which grow from the Footſtalks of the Leaves: The Leaves are about a Handbreadth and a half in length, compoſed of ſeveral other Leaves ſet by Pairs upon the ſame Rib, (three, ſometimes four or more Pairs of Leaves join in the Compoſition of one) one unpaired, for the moſt Part greater than the reſt, terminates the Wing: Each

Each single Leaf is somewhat hairy, of a dark green Colour, and shining upon the upper Side, but underneath neither of so deep a Green nor shining: Between each Pair grow other intermediate little Leaves of a round Shape: According to *Caspar Bauhin* the Leaves which shoot first are like those of Winter Cresses, of a dark purplish Colour, and hairy, the others are of a pale Green, about a Hand-breadth long, without Footstalks: The Branches divide into several thick angular Footstalks about a Foot in length, and these again into others, many in number, and hairy, with one single Joint: The Flowers equal in bigness those of the wild Mallow, in Shape resemble those of the *Mala Insana* or Mad-Apples, according to *Caspar Bauhin*, or those of Tobacco, according to *Parkinson*: To me, says Mr. Ray, they appear like those of the Winter Cherry, single-leaved, cut into five blunt Segments, without of a whitish Purple, within of a purplish Colour, or from a blue inclining to a Purple, sometimes whitish: From the greenish Pointal which stands in the Middle, and is surrounded with five saffron coloured Threads, which unite and form an Umbel or Bols, a greenish Ray darts and stretches out to each Chive: They stand ten or twelve together, sometimes more in number, upon the same common Footstalk, a few whereof are open and disclosed, the rest remain shut; they smell like the Lime-Tree Flowers: The Flowers are succeeded by an equal Number of little Apples, about the bigness of a Chestnut, but of an orbicular Form, at first of a dark green Colour, but when ripe of a dark Red, rarely white and channelled; they are full of a moist and whitish Pulp, in which lie many small roundish Seeds like those of the Nightshades.

The Root is tuberous, sometimes about the bigness of a Man's Fist, sometimes of an oblong Shape, and sometimes it is found very small, (according to *John Bauhin* it is a Hand-breadth or a Hand-breadth and a half in length, and oft-times much smaller) uneven, bearing some Marks and Vestiges upon it, from whence the next Year's Shoots are to spring; it is covered with a dusky or a dark red Bark, the Pith is firm and white, and sometimes the Knob or

Swelling from which the Plant springs, when taken out of the Earth, is found empty and flaccid: At the Origine of the Stalk are many oblong, whitish, fibrous Roots spread along the Surface, sometimes penetrating deep into the Earth, to which other tuberous Roots are annexed, so that the Plant when digged up out of the Earth towards the Winter has been found with forty, sometimes fifty Kobs of different Magnitude; they are commonly digged up before the Winter, lest they should rot in the Earth, and kept in a dry but warm Place, to be replanted in the Spring, some preserve them in a Vessel filled with dried Earth.

It flowers, says *Caspar Bauhin*, with us in the Month of June, and often continues in flower till the Autumn, and is nipped with the first Frosts: It was first brought from *Virginia* into *England*, and from thence carried into *France* and other Countreys. In *Virginia* the Roots are called *Ope-nænck*.

The *Indians*, according to the Relation of *Acosta*, use the Roots for Bread, which they call *Chunno*: There is another sort of Meat prepared from the same Roots dried by the Sun's Heat, and cut into small Pieces, which is called by the same Name, and kept for a long Time: Besides, they eat the Root both green, boiled, and roasted: Our Countrymen, says *Caspar Bauhin*, roast it under the Ashes, and having peeled off the Skin eat it with Pepper to excite Lust; some esteem the Roots, as they afford a wholesome Nourishment, useful for consumptive Persons: They nourish no otherwise than Parsneps and Chestnuts, and are apt to generate Wind: I am told, says *Caspar Bauhin*, that the use of these Roots is forbid in *Burgundy*, from a fixed Opinion that they occasion the Leprosy: In *England* we use these Roots after the same manner we do *Spanish* Potatoes.

Caspar Bauhin is groundlessly censured by the Authors of the *Historia Ebrodunensis* for ranking this Plant among the Nightshades; the strongest and most solid reasons having perswaded him so to do: I called it a Nightshade, says he, because its Leaves in form resemble those of the *Mala Aerea*, its Flowers those of the *Mala Insana*; its Fruit

that of the common Nightshade, and its Seeds, those of all the Nightshades; and lastly, because it has the same Smell: The generical Characteristicks are not to be taken from the Powers and Virtues, but from the Consonancy and Agreement of the principal Parts, the Leaves, Flowers, Fruit and Seeds.

From the fresh Roots bruised and steeped in Water, the Natives prepare a Drink by Fermentation, which they call *Mobby* and *Jetici*; with which Liquor they often fuddle and get drunk.

Solanum tuberosum, esculentum, flore albo *H. R. Par.* Nightshade with a tuberous or knobby and eatable Root, with a white Flower.

Solanum pomiferum, frutescens, Africanum, spinosum, nigricans, Boraginis flore, foliis profundè lacinatis. *H. L. Bat.* Shrubby and thorny Apple-bearing Nightshade of *Africa*, with a Borage Flower, and Leaves deeply jagged.

Solanum annuum, nigricans, Virginianum, spinosissimum, latè se spurgens, flore caruleo, glabrum *Pluk. Phytog. Tab. 62. Fig. 3.* *Solanum pomiferum*, frutescens, Africanum, spinosum, nigricans, Boraginis flore, foliis minùs profundè lacinatis, spinis multò longioribus, majoribus & crebrioribus horridum. *Rat.* *Hist.* 1799.

Solanum spiniferum, frutescens, spinis igneis, *Americanum Pluk. Phytog. Tab. 225. Fig. 5.* Shrubby and thorny *American* Nightshade, with fire coloured Thorns.

Solanum fruticosum *Indicum*, fructu rubro: *Chern-schunda H. Mat. Part 2. 67.* Shrubby *Indian* Nightshade, with a red Fruit.

Solanum spinosum, *Indicum*, Boraginis flore *Icon. Robert. H. R. Par.* *Solanum foliis & caule spinosis. Moris. H. R. Bles.* Thorny *Indian* Nightshade with a Borage Flower.

Solanum spinosum, maximè tomentosum. *Bocc. Rarior. Plant. 8. Anachunda H. Malabar.* Thorny Nightshade very much covered with a Wool or Down.

Solanum incanum, *Chinense*, minus spinosum, floribus parvis ferè umbellatis. *Pluk. Phytog. Tab. 62. Fig. 1.*

Solanum Indicum, folio sinuoso, aculeis atropurpureis instructo: *Indian* Nightshade with a sinuated Leaf, furnished with Prickles of a dark purple Colour.

Solanum Americanum, molle, foliorum nervis & aculeis flavescentibus, fructu mammoso *Plumier: Solanum pomiferum, tomentosum, fructu pyriformi inverso Sloane, Cat. Plant. Jam. 108.* *Solanum Barbadense, spinosum, foliis villosis, fructu aureo, rotundiore, Pyri parvi inversi formà & magnitudine. Pluk. Phytog. Tab. 226. Fig. 1.* Soft *American* Nightshade having the Nerves and Prickles of its Leaves of a yellowish Colour, and a Fruit shaped like an inverted Pear.

Solanum Americanum, spinosum, foliis Melongena, fructu mammoso. D. Lign. Thorny *American* Nightshade, with Leaves like those of the *Melongena*, and a Fruit shaped like an inverted Pear.

Solanum Americanum, frutescens, Acanthi folio. Plumier. Shrubby *American* Nightshade with a Brauk-Ursin Leaf.

Solanum Americanum, fruticosum, Persica foliis, aculeatum Plum. Shrubby and prickly *American* Nightshade with Peach-Tree Leaves.

Solanum Americanum, fruticosum, lauri foliis, aculeatum. Plum. Shrubby and prickly *American* Nightshade with Laurel Leaves.

Solanum Americanum, scandens, foliis tomentosus. Plum. Climbing *American* Nightshade with woolly Leaves.

Solanum Americanum, tomentosum, folio verbasci, parvo fructu, flavescente Plum. Woolly *American* Nightshade, with a Mullein Leaf, and a small yellowish Fruit.

Solanum Americanum, arborescens, Solani hortensis folio, parvo fructu coccineo. Plum. Tree Nightshade of *America*, with a Leaf like that of the common garden Nightshade, and a small scarlet-coloured Fruit.

Solanum Americanum, arborescens, Amygdali folio undulato, magno flore albo, fructu rubro. Plum. Tree Nightshade of *America*, with an undulated or waved Almond-Tree Leaf, a large white Flower, and a red Fruit.

Solanum Americanum, fruticosum, Polyacanthi folio, monospermon. Plum.

Solanum Americanum, scandens, aculeatum, Hyoscyami folio, flore intus albo, extus purpureo. Plum. Climbing, prickly *American* Nightshade with a Henbane Leaf, and a Flower of a purple Colour without, and white within.

Solanum Creticum, frutescens; *Chenopodii folio*: Shrubby Candy Nightshade with a wild Orache Leaf.

There are two of the above enumerated Species of the *Solanum* employed for medicinal Uses.

Solanum officinarum, acinis nigricantibus. C. B. *Solanum hortense sive vulgare*, baccis nigris J. B. &c. Common Nightshade of the Shops.

The Leaves of this Plant give but a faint Tincture of Red to the blue Paper, but the ripe Fruit reddens it deeply; from whence we may probably conjecture that the Salt-Armoniac which is in this Plant, is moderated and tempered in the Leaves by a considerable Portion of fetid Oil and Earth; but that the acid Part of this Salt lies very much disengaged in the ripe Fruit, so that there is a Choice to be made of the Parts of this Plant according to the Intentions we would fulfil: The Berries, for example, are more cooling, but repel more strongly than the Leaves, which at the same Time that they allay and mitigate Pain, dissolve, cleanse, and absorb; they yield by a chymical Analysis a large Quantity of concreted volatile Salt: The Nightshade is used to allay Inflammations, and discuss Tumours, to soften and relax the Fibres when they undergo a too violent Tension: Some apply the bruised Herb to the Piles, or foment the Part with the Juice warmed: This Juice is wrought or labour'd for some Time in a leaden Mortar to anoint the Cancer therewith: Quickened with a sixth Part of the Spirit of Wine well deflegmated, it is esteemed of great Efficacy to cure the St. Anthony's Fire, Tetter, Pimples, Pustules, and other such like cutaneous Distempers: The Nightshade is an Ingredient in the Ointment of Poplar, and in most anodyne Cataplasms: *Cesalpin* affirms, that the Water or Juice may be taken inwardly in an Inflammation of the Stomach, and Heat of Urine; and that three Ounces of the same Water mixed with an equal Quantity of Water of Wormwood, discharges by Sweat: However the internal Use of this Plant is generally esteemed highly noxious, and therefore to be avoided: *Tragus* says that it kills Hogs, and advises not to use the Water distilled

from it, till two or three Years after the Distillation.

In old Times it was used as a Food: It cools with some little Astringency: It was used by the Ancients both internally (but as we have already insinuated, it must be thus used with very much caution) and externally, for the Cure of an *Erysipelas*, fretting and corroding Ulcers, the Head-ach and *Parotis*, &c. as may be seen in *Dioscorides*: *Dodonæus* highly condemns the Use of it for the Cure of an *Erysipelas*, because it strongly repels or drives the peccant Humours inwards: The Juice, says *Dioscorides*, mixed with the yellow Dung of Hens fed in a Pen or Burton, and applied, certainly cures the *Agilopa* or lachrymal Fistula. *Vid. Diosc.* It is an excellent Remedy for an Inflammation of the *Penis* proceeding from any venereal Infection, either by way of Cataplasim, or Liniment: The Juice applied to the Wrist is said to remove a Fever.

A Liniment prepared with the Juice of House-leek, Nightshade, and the white of an Egg, is said to be of admirable Efficacy for the Cure of those cold and hard Tumours generated in the Breasts of Womens.

Solanum scandens, seu Dulcamara. C. B. &c. Bittersweet: The Leaves of this Plant give little or no Tincture of Red to the blue Paper; they are insipid, and of a very narcotic Smell; but the Fruit has a winy Taste, and deeply reddens the blue Paper, so that in all probability this Species contains the same Principles with that of which we have already treated: It is employed externally for the same Purposes: It is diuretic, and beneficial in a Dropsy: *Tragus* recommends it for the Cure of the Jaundice, even when inveterate: Take, says *Tragus*, one Pound of the Wood of this Plant, cut it small, and put it into a new earthen Pot with three Pints of White Wine, the Cover of the Pot must have a Hole at Top, and all the Joints closely cemented with Paste; thus set it upon a gentle Fire, and let it boil till one third Part is consumed: A Cupful of the strained Liquor taken one Hour before you rise in the Morning, and another at Night about Bed-time, cures the Jaundice, and carries off the

the noxious Humours by Stool and Urine: The Juice taken inwardly is held by some to be useful to such as are bruised by Falls or Blows; seeing 'tis believed to dissolve the coagulated Blood, and heal the affected Parts: It is esteemed effectual too to open the Obstructions of the Spleen and Liver: But *Parkinson* tells us, that whenever he used it by the Prescription of Physicians, he always found that it purged violently: And *Prevotius*, in his Book *De Medicina Pauperum*, gives the first Place, among all those Medicines that are said to evacuate Bile, to the Wood of the *Dulcamara* or Bittersweet.

The following Medicine was communicated by Dr. *Hulse* to Mr. *Ray*, for its admirable Virtue, it having in the Space of one Night dissolved a Tumour of the bigness of a Man's Head, and healed desperate and dangerous Contusions of the muscular Parts: Take four Handfuls of the Leaves of Bittersweet cut small; four Ounces of Linseed finely powdered; boil them in a muscadine Wine, or in Hog's Lard to the Consistence of a Cataplasim, and apply it hot.

TABLE LII.

GENUS II.

Lycopersicon, Love-Apples.

THE *Lycopersicon* is the Genus of a Plant with a Flower of one single Leaf A, shaped like a Wheel, and cut into several Segments: From its Flower-Cup C the Style D rises, which is fixed like a Nail in the middle of the Flower B, and when the Flower is decayed, changes into a soft, fleshy, and roundish Fruit E, partitioned into several Cells F, which contain for the most Part flat Seeds G.

Its Species are,

Lycopersicon Galeni Ang. 217. *Solanum pomiferum*, fructu rotundo, striato, molli C. B. Pin. 167. *Mala aurea odore satido, quibusdam Lycopersicon* J. B. 3. 620. *Aurea mala*. Dod. Pempt. 458. Love-Apples.

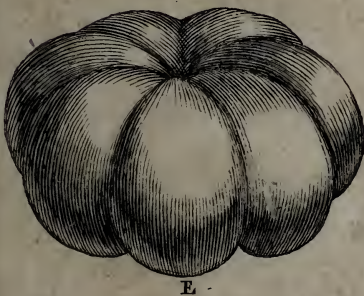
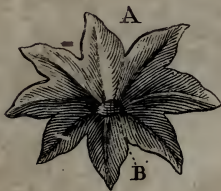
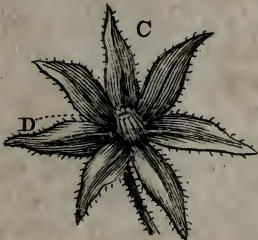
Its Stalks are very long and weak, hollow, hairy, lying flat upon the Ground, branched from their very Origine; the Branches are many in number, equalling the Stalk it self in length, and subdivided into several lesser ones: The Leaves are composed of three Pairs of Wings or Lobes indented round the Edges, fixed to the middle Rib, with a larger one unpaired, which terminates the Leaf; between each Pair are some intermediate little Lobes or Wings; so that in some Measure they resemble the Leaves of Agrimony, only the Wings are sharper-pointed, either intirely smooth, or have but a few Hairs upon the Backside of the Ribs, and are of a paler Green: The Flowers which grow upon the little Twigs or Branches, do not rise from the Bosoms of the Leaves, but from the intermediate Space between two Leaves, as in the common Nightshade; they stand ten or twelve together, upon peculiar Footstalks an Inch or more in length, each whereof has one Joint or Knot, from whence the genuine Footstalk of the Fruit springs: The Flowers are yellow and single-leaved, but so deeply cut into five Segments, that they appear pentapetalous or composed of five distinct Leaves; in their middle is an Umbo or Boss of a yellow Colour, composed by the close Union and Conjunction of the Chives wherewith the Stamina or Threads are tipp'd; in Form they resemble those of the common Nightshade, nor are they larger: The Flower-Cup is likewise cut into five Parts, and hairy, as are the Footstalks of the Flowers: The Flowers are succeeded by a Fruit larger than a Cherry, in form not much different; when ripe, from a Saffron it inclines to a reddish Colour: The Pulp or Flesh is moist and eatable, the Seeds are many and yellowish: In our Gardens, says *Ray*, it flowers after Midsummer, and ripens its Fruit in August: The first Frosts nip and rot it.

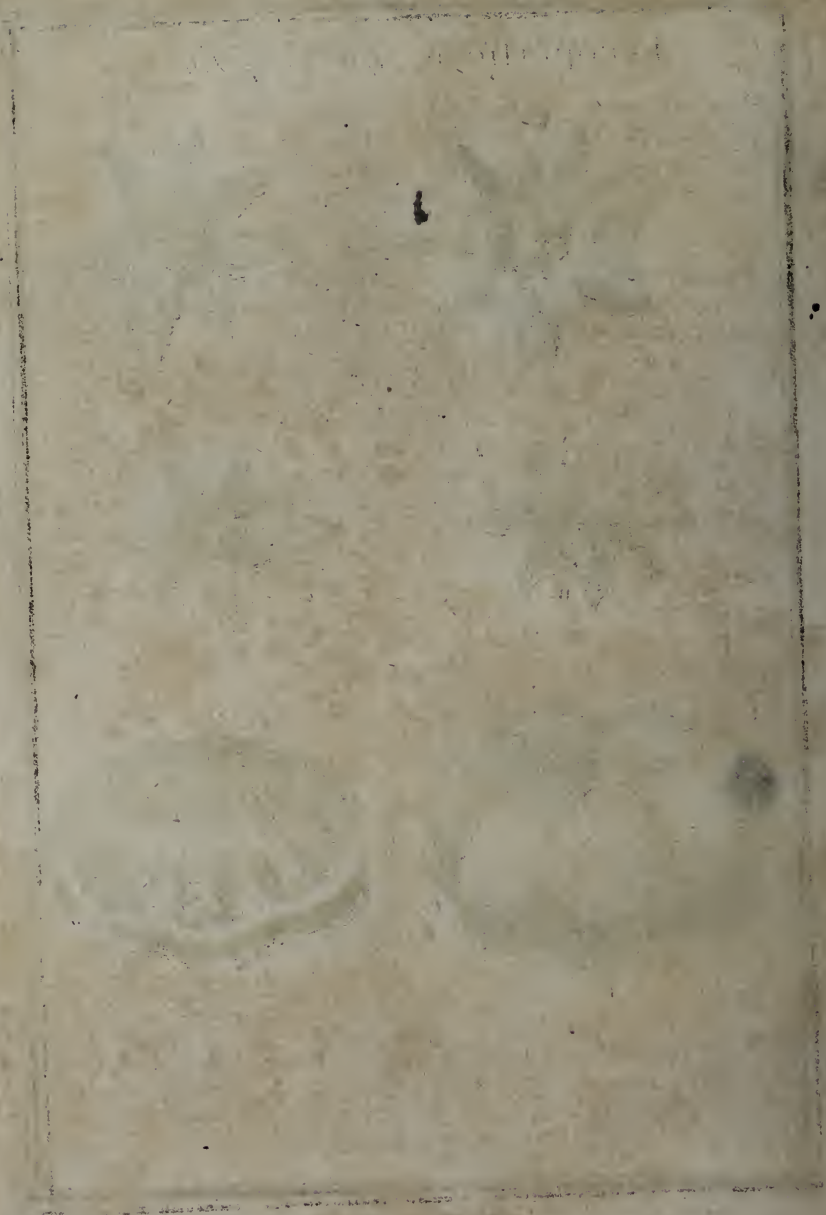
Lycopersicon fructu rubro, non striato: *Lycopersicon* with a red Fruit, not streaked or chanelled.

Lycopersicon fructu luteo: *Poma amoris fructu luteo*. Eyst. Love-Apples with a yellow Fruit.

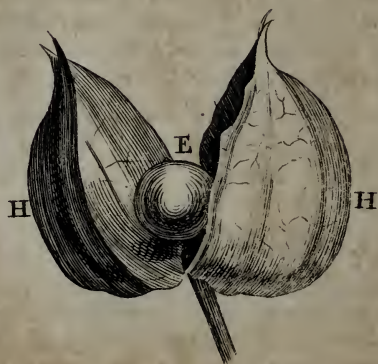
Lycopersicon fructu albo: *Solanum pomiferum, fructu rotundo, striato, molli, albo*. C. B. Pin.

Lycopersicon. Apples of Love.









Pin. 167. Love-Apples with a white Fruit, or Apple-bearing Nightshade with a round, channelled, soft and white Fruit.

Lycopersicon fructu rubro pallescente: Solanum pomiferum, fructu rotundo, striato, molli, rubro-pallescente. H. R. Par. Love Apples with a Fruit of a pale red Colour, or Apple-bearing Nightshade with a round channelled and soft Fruit of a pale red Colour.

Lycopersicon fructu cerasi rubro: Solanum racemosum cerasorum formâ. C. B. Pin. 167. *J. B. 3. 623.* Love-Apples or clustered Nightshade with a red Fruit shaped like a Cherry.

Lycopersicon fructu cerasi luteo: Solanum racemosum, cerasorum formâ, fructu luteo H. R. Par. Solanum pomiferum, fructu rotundo, parvo, rubro, plano, nunc luteo, nunc rubro. Moris. H. R. Bles. Apples of Love with a yellow Fruit shaped like Cherry, or clustered Nightshade with a yellow Fruit shaped like a Cherry.

Lycopersicon fructu striato, duro: Solanum pomiferum, fructu rotundo, striato, duro C. B. Pin. 167. *J. B. 3. 620. Mala Æthiopica. Dod. Pempt. 459.* Apples of Love with a hard, channelled Fruit.

Lycopersicon Americanum, arborescens, amplifolius foliis angulatis. Plum. Tree *Lycopersicon* of America, with large cornered Leaves.

The *Lycopersicon* differs from the *Solanum* or Nightshade in its Fruit, which is partitioned into several seminal Cells.

The name *Lycopersicon* is a Compound of the two Greek words *Λυκος* and *Περσος*, as if we should say in *English*, *Persian* Lupines.

The Juice of this Plant is very useful for the cure of a Rheum or Defluxion of hot Humours upon the Eyes, which may occasion a *Glaucoma* if not prevented: For it not only stops the Afflux of the Humour, but moderates and allays the Inflammation: It is no less beneficial in a St. Anthony's Fire, and such like inflammatory Distempers. *Ray.*

The Fruit boiled in Oil, is effectual for the Cure of the Itch; and by a chymical Preparation yields an Oil very proper for the Cure of Burnings.

The *Italians* eat the Apples as we do Cucumbers, with Pepper, Oil and Salt: Some eat them boiled: But considering their great

Moisture and Coldness, the Nourishment they afford must be bad.

TABLE LIII.

GENUS III.

Alkekengi, Winter Cherry,

THE Winter Cherry is a Plant with a Flower of one single Leaf A, shaped like a Wheel, and cut into several Segments: From its Flower-Cup C, which is fashioned like a Bell, the Pointal D rises, which is fixed like a Nail in the middle of the Flower B, and afterwards changes into a soft Fruit E, in form like a Cherry, which contains several Seeds F, for the most part flat G, and is wrapped up within a membranous Husk H, which is nothing else but a Production of the Flower-Cup C.

Its Species are,

Alkekengi officinarum: Solanum vesicarium C. B. Pin. 166. *Solanum halicacabum, vulgare J. B. 3. 609. Solanum vesicarium. Dod. Pempt. 454.* Winter Cherry.

The Root creeps under Ground full of Joints, and emits some slender Fibres: The Stalks are a Foot in height, sometimes higher, round, reddish, and somewhat hairy, stuffed with a Pith, and full of Joints; at each whereof stand two Leaves upon the same Side of the Stalk, supported by long Footstalks, nearly resembling those of Basil or of the garden Nightshade, but larger, and of a darker green Colour, not notched round the Edges, and covered with a short and scarcely perceptible Down: From the Bosom of each Leaf a Flower rises upon a Footstalk half an Inch or an Inch long, slender and hairy; the Flowers are single-leaved, large, and of a white Colour, and cut into five Segments: When the Flower drops, the Flower-Cup extends and enlarges it self into a loose pentagonal Bladder or Husk of a reddish Colour, and full of a moist Pulp, which contains many small, white, flat Seeds: The Berries, because of the weakness of the Footstalks, hang

hang downwards: It grows in shady and moist Places: Mr. Ray found it in some woody Parts in an Isle of the Danube near to Vienna; as also near to Rome, in some Ditches: It flowers in May, June, and July; the Fruit ripens about Autumn.

Alkekengi officinarum, foliis variegatis: Solanum vesicarium, foliis è luteo variis. H. R. Par. Winter Cherry or bladdered Nightshade with party-coloured Leaves.

Alkekengi fructu parvo, verticillato: Solanum somniferum, verticillatum C. B. Pin. 166. Solanum verticillatum. J. B. 3. 610. Solanum somniferum. Dod. Pempt. 455. Winter Cherry or sleepy Nightshade with a small Fruit growing in Whirls.

From the same Root it sends up several Stalks a Foot and a half, or more, in height, pretty thick, upright, round, hairy, and divided into some few whitish and woolly Branches, well furnished with Leaves, two always together oppositely placed, like those of the Quince-Tree, thick, soft, woolly, and somewhat hot to the Taste, which are supported by Footstalks not an Inch long: From the Bosoms of the Leaves the Flowers rise three or four together disposed in Whirls, of a pale Colour, and cut into four Segments; they are succeeded by Berries enclosed within little downy Husks, of a Red, or from a Red inclining to a saffron Colour when ripe: The Root is long, thick, hard, and covered with a Bark of a dusky Colour.

Alkekengi Virginianum, fructu luteo: Solanum Virginianum, fructu luteo. H. R. Par. Alkekengi sive Halicacabum Virginienſe. Park. Theat. 463. Camaru Pison. Edit. 1658. 223. Virginia Winter Cherry with a yellow Fruit.

This Winter Cherry of Virginia spreads its Branches with the Leaves upon the Ground, scarce raising it self so high as the common sort, but the Branches are greater, and so are the Leaves also, and more unevenly dented round the Edges, of a dark or fullen green Colour: At the Joints the Flowers rise singly, that is, one at a Place, and more towards the Bottom than upwards, to the height of the Branches, they are smaller than those of the common sort, divided into five Segments of a whitish Colour, each whereof has a red Circle at the

Bottom: The Fruit that follows is a small Berry enclosed in a thin Skin or Bladder, as in the common sort, but green and not red when ripe, smaller likewise than it, and the Berry fills the Skin or Bladder more, and leaves not so much void Space in the Husk: The Seed is the same: The Root does not spread much under Ground, and perishes in the Winter.

Alkekengi Indicum, majus: Solanum vesicarium, Indicum C. B. Pin. 166. Solanum sive Halicacabum Indicum J. B. 3. 609. Halicacabum sive Solanum Indicum. Cam. Hort. Tab. XVII. The greater Indian Winter Cherry.

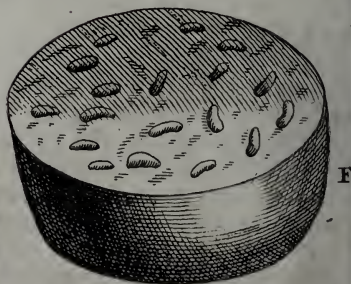
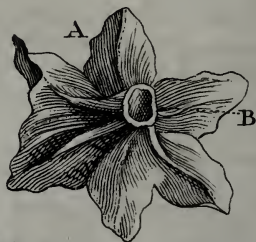
This Indian kind rises to the height of four Foot, with strong upright Stalks, knotty and corner'd, shooting out many Branches, whereupon grow fair green Leaves, like unto those of the ordinary or common Winter Cherry, but somewhat larger, and indented round the Edges: At the Joints with the Leaves come forth the Flowers, of a whitish Colour, as in the common Sort, every one by it self; they are single-leaved, and cut into five Segments, somewhat crumpled about the Edges, and at the Bottom they have five blackish purple Spots, with several Threads purplish in the Middle, tipp'd with blackish blue Chives: The Flowers are succeeded by Berries wrapped up within Bladders or thin Skins, like unto the common or Winter Cherry, but larger, not only filling all the Capacity of the Bladder, but oftentimes breaking it, and opening into four Parts, which when it is ripe will be green as well as the Bladder, except sometimes that part which is most exposed to the Sun's Heat, which will appear of a dark greenish purple Colour; the whole Plant is without Taste, yet yields at the Joints a certain glutinous Juice of a strong Scent, like unto that of the *Poma amoris*, or Love-Apples: This Species perissheth every Year in these colder Climates, at the first approach of the Winter, and whether it lives in the Places of its natural Growth we know not, nor to which physical Use it is applied, or if it is used as a Food.

Alkekengi Indicum, minimum, fructu virescente: Solanum vesicarium, Indicum, minimum H. L. Bat. The smallest Indian Winter Cherry with a greenish Fruit.



Melongena.

Mad Apples.



Alkekengi Indicum, minimum, fructu luteo.
Solanum Vesicarium, minus, bacca lutea. Barr.
Icon. Bocc. Mus. Part. 2. 63. Tab. 51.

Alkekengi Americanum, flore albo, folliculis
è rubro Virescentibus, fructu flavescente. Plum.
 American Winter Cherry with a white Flower,
 Bladders or Husks, from a red inclining to
 a greenish Colour, and a yellowish Fruit.

It is the first Species which is of Common
 use in the Shops. The Leaves are sharp and
 bitter: They give no Tincture of red to the
 blew Paper; but the Fruit reddens it very
 much: It appears at first of a fourth Taste;
 but afterwards it tastes very bitter; which
 gives us ground to Conjecture that there is
 in the Fruit of the Plant a Salt nearly ap-
 proaching to the *Oxysal Diaphoreticum An-*
geli Sala, mixed with a little fetid Oyl: In
 the Leaves, the same Salt lies too much in-
 volved in Sulphur and earthy Parts, to be
 perceived. The *Alkekengi* is strongly aper-
 itive and diuretick; *Dioscorides* used it in the
 Jaundice, and in a Retention of Urine. *Ar-*
noldus de Villa nova and *Casalpin* advised those
 that were hydropick, or troubled with a Re-
 tention of Urine to drink the Wine, wherein
 three or four Berries of this Plant had been
 bruised. In the Time of the Vintage there
 is a Wine composed by mixing a certain
 quantity of the Fruits of this Plant with the
 Grapes in the Wine Press: Four Ounces of
 this Wine in the Morning are prescribed to
 those that are troubled with the Gravel. The
 Juice thickned to the Consistence of an Ex-
 tract, has the same Virtues: Four or Five of
 the Berries may be bruised in an ordinary
 Emulsion, and administred to the Patient.
Brassavole used the Juice of the Fruit in the
 same Distemper; and he affirms, that a Per-
 son who suffered exquisite Pain for the space
 of three Days, was perfectly cured by the
 Use of it. There are Lozenges prepared from
 the Fruit of the Winter Cherry, of which
L'Emery has given an excellent Description,
 the Dose whereof is 3i. the Berries are used
 in the Syrup of Succory, and in the *Antine-*
phritic Syrup of Charras.

TABLE LXV.

GENUS IV.

Melongena, Mad-Apple,

IS a Plant with a Flower of one single
 Leaf A, shaped like a Wheel, and cut in-
 to many Segments; out of whose flower Cup
 D, arises the Pointal C, fixed like a Nail in
 the middle of the Flower B, which after-
 wards turns to a fleshy Fruit E, within which,
 as in a Nest F, are contained the Seeds in
 form of Kidneys.

The Species of this Plant are,

1. *Melongena fructu oblongo, violaceo, Mad-*
Apple with an oblong, violet coloured Fruit.
Solanum pomiferum, fructu oblongo. C. B. Pin.
 167. *Mala insana. Dod. Pempt. 458.*

Its Root has many Fibres, and does not pe-
 netrate deep into the Earth; and for the most
 part sends up one single Stalk about nine
 Inches or a Foot long, taper, reddish, covered
 with a certain Down, that may be easily se-
 parated from it, of the Thickness of one's
 Finger, branching into several Divisions from
 the very Root, the small Branches growing
 in no regular order, and shooting forth from
 the Junctures of the Leaves.

The Leaves are very large, viz. a Span, or a
 Span and a half long, and almost as broad as
 one's Hand; of the Shape and Size of Oak-
 en Leaves, sinuated quite round, but not jag-
 ged or indented, and standing upon very
 thick Foot-stalks four Inches long. Both the
 Stalks and larger Veins of the Leaves are
 red; the Leaves themselves are of a deep
 Green, cover'd over with a certain fine white
 Dust or Down like Meal; and sometimes
 there grow little prickles upon the Rib, or
 middle Nerve of the Leaf.

Over-against the Leaves the Flowers break
 forth, sometimes single, sometimes double or
 triple upon the same Cyon, out of a Cup be-
 set with little red Prickles, divided into five
 acute Segments; which Flowers indeed con-
 sist only of one Leaf, but then they are part-
 ed into five or six Jaggs, in form of a Star,
 F f which

which are large, sinuated, purple-coloured, or white: To which succeed the Apples, about the Bigness of an Egg or Cucumber, of an oblong Figure, a purple or greenish Colour, a smooth Bark, or Skin, containing a whitish and juicy Pulp, within which are placed many Seeds, whitish, flat, and much resembling the Cod-pepper.

Margrave is of Opinion, that this is the same Plant which is called *Belengela* by the Portuguese, *Tongu* by the People of Angola, and *Macumba* by those of Congo; who is certainly in the right, notwithstanding the Censure of *Jo. de Laet*, who is himself mistaken.

Because these Apples bore some resemblance to *Mandrakes*, some of the Moderns have fancied they were the *Male Mandrake* of *Theophrastus*, and imagining them to be Poisonous, did for that Reason call them Mad-Apples: Whereas in reality, they excite no sort of Madness, but are used by the *Italians* and *Spaniards* in their Sallads and Deserts.

2. *Melongena fructu oblongo, albo*, Mad-Apple with an oblong white Fruit. *Solanum Pomiferum, fructu oblongo, albo*. C. B. Pin. 167.

3. *Melongena fructu oblongo, luteo*, Mad-Apple with an oblong pale Fruit. *Solanum Pomiferum, fructu oblongo, luteo*. C. B. Pin. 167.

4. *Melongena fructu oblongo, suavè rubente*, Mad-Apple with an oblong, and charming red Fruit. *Solanum Pomiferum, fructu oblongo, carneo*. H. R. Par.

5. *Melongena fructu tereti, violaceo*. Mad-Apple with a taper, violet coloured Fruit.

6. *Melongena fructu rotundo*. Mad-Apple with a round Fruit. *Solanum Pomiferum, fructu infar mali rotundo*. C. B. 617. *Solanum Pomiferum, fructu rotundo*. J. B. 3. 618.

7. *Melongena fructu incurvo*. Mad-Apple with a bending or crooked Fruit. *Solanum Pomiferum, fructu incurvo*. C. B. Pin. 167. J. B. 3. 619. *Melanizana Arabum, Melongena* Lugd. App. 23.

8. *Melongena Spinosa, fructu rotundo, croceo*. Mad-Apple prickly, with a round Fruit, of a Saffron colour. *Solanum Spinosum, fructu rotundo*. C. B. Pin. 167. *Pomum de Hiericho Melongenensis* congener. J. B. 3. 619.

9. *Melongena fructu rotundo, cum spinis violaceis*. Mad-Apple with a round Fruit, with violet coloured prickles. *Solanum Pomiferum,*

fructu rotundo, spinis violaceis. H. L. Bat.

10. *Melongena fructu rotundo, cum spinis ex albo virentibus*. Mad-Apple with a round Fruit, with Prickles of a whitish green. *Solanum Pomiferum, fructu rotundo, spinis ex albo virentibus*. H. L. Bat.

11. *Melongena Spinosa, fructu rotundo, nigro*. Mad-Apple prickly, with a round black Fruit. *Solanum Pomiferum, fructu nigro, spinoso*. C. B. Pin. 167. *Melanizana nigra*. Lugd. App. 23. *Solanum Pomiferum, fructu spinoso*. J. B. 3. 619.

Melongena Spinosa, fructu longo, nigro. Mad-Apple prickly, with a long black Fruit. *Solanum Pomiferum, fructu longo, nigro, spinoso*. C. B. Pin. 167.

The first Species of this Plant grows Spontaneously in *Egypt*, almost every where in Sandy Fields, and brings forth Fruit of the bigness of a large Cucumber, as *Petrus Bellonius* informs us, in his Second Book of Observations.

The People of *Toledo* eat this Fruit boiled with fat Flesh, putting thereto some scraped Cheese, which they keep in Vinegar, Honey, or Salt Pickle all Winter, to provoke Lust.

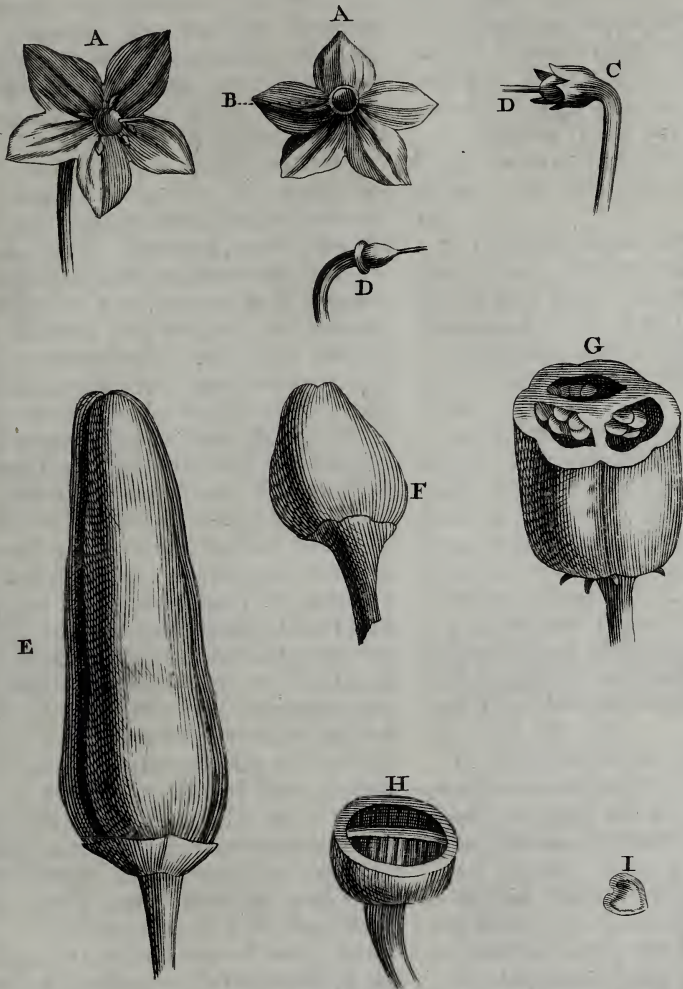
Petrus Bellonius and *Hermolaus Barbarus*, relate, That in *Egypt* and *Barbary*, they use to eat the Fruit of the *Mala insana*, boiled or roasted under Ashes, with Oil, Vinegar, and Pepper, as People use to eat Mushrooms. *Scaliger* likewise speaks of the People of *Geneva* using it in the same manner; and says moreover, That it neither produces Frenzy, nor any other Injury, and that therefore *minus sano judicio insani dicuntur*. They who call them Mad-Apples, are a little touch'd themselves.

TABLE LXVI.

GENUS V.

Capicum, Guiny-Pepper.

Guiny-Pepper is a Plant bearing a Flower of one single Leaf A, shaped like a Wheel, and cut into many Segments; out of whose Cup C, arises the Pointal D, fastned like a Nail in the middle of the Flower B, which afterwards turns to a soft Fruit EF, as





it were membranaceous, divided into two Seed-Bags H, or into more G, and full of flat Seeds I, generally in the form of Kidneys.

The Species of this Plant are,

1. *Capsicum siliquis longis, propendentibus.* Guiny-Pepper with long Cods, hanging down. *Piper Indicum, vulgatissimum.* C.B. Pin. 102. *Capsicum Astuarii, sive caninum Zinziber; Avicennæ Caleciticum Piper, sive Piper Indicum, longioribus siliquis.* Lob. Icon. 316.

It brings forth a single Stalk, a Foot, or a Cubit long [in warmer Regions, a Cubit and a half, or two Cubits long] corner'd [taper *Park.*] rough, firm, of a dark green colour, and red only in that Part where the Leaves come forth: But the Leaves grow out of the half Joints, broader than those of Lake-weed, pointed, of a dark green, or of a greenish yellow Colour, pretty thick, and smooth, the Nerve running lengthwise, from whence oblique Veins run to the Edges, hanging on a Footstalk, one or two Inches long, and equal round the Edges. From their Wings, little Twigs shoot forth, adorned with like Leaves.

The Flowers arise out of the Wings of the Leaves, and at the Roots of the Ramifications, and rest upon a long, hollow Footstalk, of a full and deep red, bending downwards, white, larger than the Flowers of common Nightshade, but otherwise exactly like them, naturally Five-leav'd, but sometimes Six-leav'd, either through culture, or the Luxuriancy of the Soil, with pointed Leaves, expanded like a Star, with a few violet [yellow *Park.*] Threads in the middle, and a little green Cup ending in several sharp Points, embracing the whole Flower below.

To these succeed the Cods, sometimes long like little Horns, or straight, or crooked; sometimes short and contracted, and when full ripe, of a shining Crimson and deep Red; containing great abundance of Seed, which is flat, round, yellow, or between white and yellow. The Root is short, not thicker than the Stalk, spreading numberless Fibres quite round on every side. There is no part of this Plant, but is endowed with Acrimony; but above all the rest, the burning Heat of the Seeds and Cods is invincible.

2. *Capsicum recurvis siliquis.* Guiny-Pepper with Cods bending back. *Dod. Pempt.* 716. *Piper Indicum, propendentibus siliquis, oblongis, re-*

curvis. C. B. Pin. 102. *Piper Caleciticum, sive Capsicum oblongius.* J. B. 2. 943.

3. *Capsicum siliquis recurvis, minus.* The lesser Guiny-Pepper, with bending Cods. *Piper Indicum, minus, siliquis recurvis.* Eyst.

4. *Capsicum fructu flavescente.* Guiny-Pepper with a yellowish Fruit. *Piper Indicum siliquis flavis.* Eyst.

5. *Capsicum siliquis surrectis, & oblongis, brevibus.* Guiny-Pepper with upright, oblong, and short Cods. *Piper erectum, minus Pyramidale vel iii Regio Clus.* Cur. Post. 52.

6. *Capsicum fructu surrecto, oblongo.* Guiny-Pepper with upright, oblong Fruit. *Piper Indicum, siliquis surrectis, & oblongis.* C. B. Pin. 102.

7. *Capsicum siliquis surrectis, & oblongis, exiguis.* Guiny-Pepper with erect oblong, and small Cods. *Piper, oblongum, exiguum, erectum, Pyramidale vel iv. Regio Clus.* Cur. Post. 52.

8. *Capsicum fructu bifido.* Guiny-Pepper with a double Fruit. *Piper Indicum, bifurcata siliqua.* Eyst.

9. *Capsicum fructu tereti, spirhamao.* Guiny-Pepper with a taper Fruit, of a Span long.

10. *Capsicum fructu longo, ventre tumido, per summum tetragono.* Guiny-Pepper with long Fruit, a swollen Belly, and Square throughout. *Piper Indicum longum, ventre tumido, siliqua per summum tetragona.* H. R. Par.

11. *Capsicum siliqua latiore, & rotundiore.* Guiny-Pepper with a larger and rounder Cod. J. B. 2. 943. *Siliquastrum quartum.* Fuchs. Hist. 734. *Piper Indicum, propendentibus siliquis rotundis.* C. B. Pin. 102.

12. *Capsicum siliqua propendente, oblonga & cordiformi.* Guiny-Pepper with a Cod hanging down, oblong, and in the shape of a Heart. *Piper Indicum, cordatum oblongum.* Eyst.

13. *Capsicum siliqua propendente, rotunda, & cordiformi.* Guiny-Pepper with a Cod hanging down, round, and shaped like Heart. *Piper Indicum, cordatum.* Eyst.

14. *Capsicum siliqua Olivæ forma.* Guiny-Pepper with a Cod shaped like an Olive. *Piper cum siliqua olivaria.* Clus. Cur. Post. 52.

15. *Capsicum siliqua propendente, Cerasi forma.* Guiny-Pepper with a Cod hanging down, in the shape of a Cherry. *Piper Minimum siliquis rotundis.* Eyst.

16. *Capsicum fructu rotundo, maximo.* Guiny-Pepper with round Fruit of the largest size. *Piper Indicum, fructu dependente, Pomi amaris*

forma. C. B. Pin. 102. *Piper Indicum, rotundum maximum*. Eyft.

17. *Capficum fructu aculeato, majori*. Guiny-Pepper with a large prickly Fruit. *Piper Indicum, fructu aculeato majori*. C. B. Pin. 102. *Piper Indicum rotundum, aculeatum*. Eyft.

18. *Capficum fructu aculeato, minori*. Guiny-Pepper with a sharp pointed lesser Fruit. *Piper Indicum, fructu aculeato, minori*. C. B. Pin. 102. *Piper Indicum, aculeatum, medium*. Eyft.

19. *Capficum filiquis surrectis, rotundis*. Guiny-Pepper with erect, round Cods. *Piper Indicum, filiquis surrectis, rotundis*. C. B. Pin. 103. *Piper rotundum, majus, surrectum, vel primum Regio. Clus. Cur. Post. in fol. 51.*

20. *Capficum filiquis surrectis, rotundis, parum acuminatis*. Guiny-Pepper with Cods, erect, round, and a little pointed. *Piper Indicum rotundum, minus, parum acuminatum*. C. B. Pin. 103.

21. *Capficum filiquis surrectis, cordiformibus*. Guiny-Pepper with erect Cods, in the shape of a Heart. *Piper Indicum, cordatum, majus*. C. B. Pin. 103.

22. *Capficum filiquis surrectis, cordiformibus, angulatis*. Guiny-Pepper with erect Cods, shaped like a Heart, and corner'd. *Piper Indicum, cordatum, minus, angulosum*. C. B. Pin. 103.

23. *Capficum filiquis surrectis, Cerasi forma*. Guiny-Pepper with erect Cods, shaped like a Cherry. *Piper Indicum filiquis surrectis, cerasi forma*. C. B. Pin. 103. *Capficum minimis filiquis*. Dod. Pempt. 717. *Piper filiqua parva, Brasiliannum*. J. B. 2. 944.

25. *Capficum caule piloso, flore majore*. Guiny-Pepper with a Hoary Stalk, and a large Flower. *Piper Indicum, caule piloso, flore majore*. C. B. Pin. 103. *Piper Indicum, caule pilis albis præditi*. Cam. Hort. 127.

26. *Capficum, fructu rotundo, minimo*. Guiny-Pepper, with a round and very small Fruit. *Piper sui quosum, magnitudinis baccarum asparagi*. J. B. 2. 944.

27. *Capficum Americanum, fructu oblongo, dulci*. Plum. American-Pepper, with an oblong, sweet Fruit.

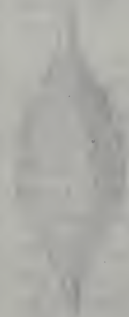
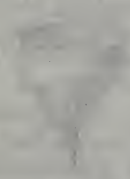
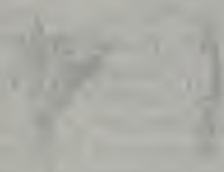
Capficum, is either derived from the Greek Word *καπνίζω*, which signifies to bite, because of the burning Force of the Seed; or from the Latin Word *Capsa*, which signifies a Box or Chest, because of the Shape of the Fruit which resembles a little Box.

All these various Species of Pepper having the same or alike Virtues and Qualities, there is no necessity for pitching upon any particular one from among this great Number, since they all equally conspire to the same Ends, and produce the same Effects.

This Pepper then, which came Originally from *America*, and not from *Guinea*, as is falsely supposed, is of a Nature extremely hot and burning, and of so sharp and biting a Taste, that it inflames the Mouth and Throat so excessively, that it can hardly be endured: For if any one eat of it unawares, it is enough to choak him, and if applied outwardly to the Skin, it will exulcerate it, and raise Blisters, in the same manner as if they had been burnt with Fire, or scalded with boiling Water. The fierce and noxious Vapours that arise upon opening the Cods or Husks, in order to take out the Seed, will so pierce the Senses by flying up into the Head thro' the Nostrils, that it will create excessive Sneezing, and draw down such abundance of thin Rheume, that one can scarce behold it without Admiration. If it passes into the Throat, it will create a sharp Coughing, and even cause a Vomiting to that Height, that all the Bowels, as well as the Stomach, will be ready to come out. And if any one touch their Face or Eyes with their Hands, it will raise so great an Inflammation, that the Patients will think themselves undone, and cannot be suddenly removed, till Bathing the Parts affected for a considerable Time, either with Wine, or cold Water, the Inflammation will go off, without any Injury.

If any of it be thrown into the Fire, it raises grievous strong and noysom Vapours, which create a vehement Sneezing and Coughing, and even Vomiting to Excess, in all that are in the Room, or near the Place where it is burnt. And yet it is not without its own Uses both in Meats and Physick; for a Proof of which, take *Gregorio di Reggio's* Receipt, viz. Take of the ripe Cods of any sort of Guiny-Pepper, and dry them well, first by themselves, and then in an Oven, after the Bread is taken out; Put them into a Pot or Pipkin with some Flower, that they may be thoroughly dried; cleanse them from the Flower, and their Stalks, if they have any; cut or clip them very small, both Husk and Seed, and to every Ounce of them put a Pound

Plum tree
fruit

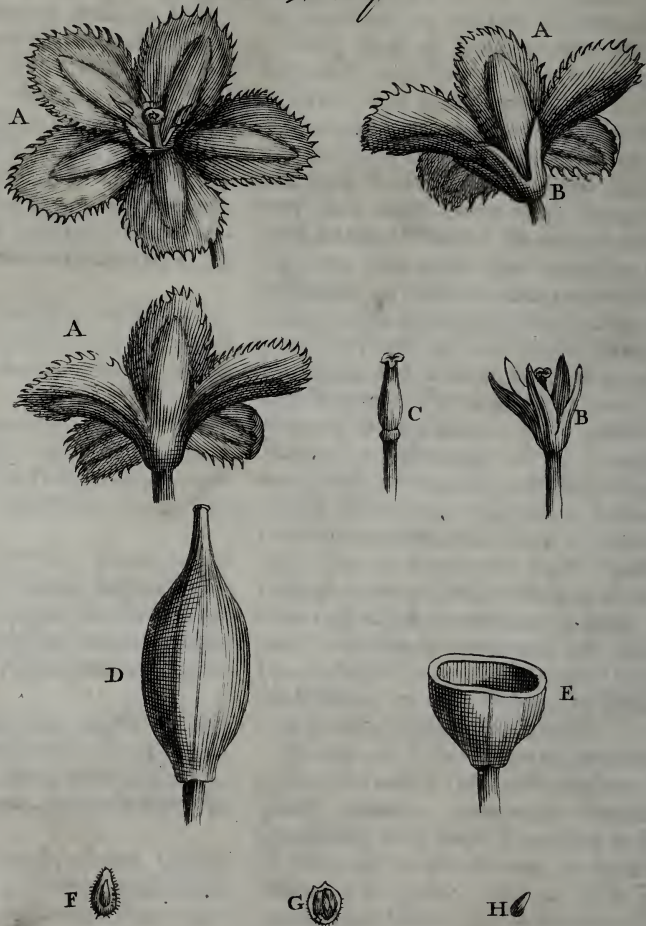


17

18

19

Nymphoides.
Water Lilly.



Pound of Wheat Flower, (the same you dried them with in the Oven, may be part if you will) make them up together into Cakes or small Loaves, with so much Leaven, as you think may be convenient for the Quantity you make: Bake these as you do Bread of that size; then cut them into smaller Parts, and Bake them again, that they may be as dry and hard as Biscuit, which beaten into fine Powder and Sifted, may be kept for any of the Uses hereafter specified, or may serve instead of ordinary Pepper, to season Meat or Broth, or for Sauce, or any other purpose, the *East-India* Pepper doth serve for: For it not only gives as good, but rather a better Relish to Meat or Sauce, and is found to be of excellent Use to break and discuss the Wind, both in the Stomach and the Guts. It is very proper to be used with such Meats as are flatulent or windy, and such as breed much Moisture and Crudity. One Scruple of the said Powder taken in a little Broth of Veal, or Chicken, does wonderfully comfort a cold Stomach, causing Phlegm, or such like viscous Humours to be Voided; it helps Digestion, provokes Urine, and taken with Saxifrage Water, expels the Stone in the Kidneys, and the Phlegm that breeds it; and used in Meats, takes away Dimness or Mistiness of Sight. Taken with *Pilula Elephangina*, cures the Dropsie. The Powder taken for three Days together in the Decoction of *Penny-royal*, expels the dead Birth; but if a Piece of the Cod, either green or dry, be put into the Mother after Delivery, it will make her Barren ever after: But the Powder taken four or five Days fasting, with an equal Quantity of *Fennel Seed*, will ease all Pains of the Mother. The same also made up with a little Powder of *Gentian*, and Oil of *Bays* into a Pessary, with some Cotton Wool, will bring down the Courses, if they have been stopp'd. Being mixed with a *Loboc*, or Elestuary for the Cough, helps an old inveterate Cough: Being mixed with Honey, and applied to the Throat, when affected with Squinsey, removes it in a short time; and made up with a little Pitch or Turpentine, and laid upon any hard Knots or Kernels, in any part of the Body, it will dissolve them, and not suffer any more to grow there. Mixed with some Nitre, it takes away the Morpew, and all other Freckles, Spots, or

Marks, and Discolourings of the Skin. Mixed with Hens Grease, it dissolves all cold Impossthumes and Carbuncles; and mixed with sharp Vinegar, dissolves the Hardness of the Spleen. A Plaister made of this, and the Leaves of Tobacco, will heal the Sting, or Bite of any Venemous Creature. The Decoction of the Husks, eases the Tooth-Ach, and preserves the Teeth from Rottenness: The Ashes of them rubbed on the Teeth, will render them white, tho' they had been black before.

TABLE LXVII.

GENUS VI.

Nymphoides, *Water Lilly*.

WATER Lilly is a Plant, with a Flower of one Leaf A, generally round, and cut into several Segments; out of whose Cup B, arises the Pointal C, which pierces the lowermost part of the Flower, and turns to Fruit, or an oblong Cover D, flat, soft, having only one Cell E, replenished with Seeds H, involved in a tender Membrane FG.

The Species of this Plant are,

1. *Nymphoides aquis innatans*. Water Lilly, swimming upon the Water. *Nymphaea lutea, minor, flore sinbiato*. C. B. Pin. 194. *Nymphaea minor, lutea, flore sinbiato*. J. B. 3. 772.

It is fastened in a slimy tough Clay by many small capillaceous Roots, which shoot from the Joints or Knots of the Stalks; with many Leaves resting upon long and round Foot-stalks, very bitter to the Taste, swimming upon the Water, near to one another, with taper knotted Stalks; with yellow Flowers, very much resembling those of a Gourd, consisting only of five little Leaves, not thick set, as in the larger yellow Water Lilly, or producing many Chives within, and beautifully fringed round the edges; with a little Cup, oblong, broad and flat, full of oblong Seeds, broad, and hairy about the edges, almost after the manner of Arrach, and of a Taste somewhat bitter.

2. *Nymphoides folio maculis purpureis notato*. Water Lilly with a Leaf marked with purple Spots.

Spots. *Nymphaea lutea, minor, flore fimbriato, foliis purpureis maculis eleganter notatis. Pluk. Almag. Bot. 266.*

3. *Nymphoides Indica, flore albo, fimbriato. The Indian Water Lilly with a white fringed Flower. Nadel Ambel. H. Mal. Part xi. Tab. 28.*

This Plant is called *Nymphoides*, because of its near resemblance of the *Nymphaea*, or Water Lilly: For in its whole Appearance and manner of growing it represents it; but it differs from it a great deal, both in the Structure of the Flower, Fruit, and Seed.

TABLE LXVIII.

GENUS VII.

Cyclamen, Sowbread.

Sowbread is a Plant with a Flower of one single Leaf A, shaped like a Wheel, in the Figure of a Ball, generally cut into five parts turning upwards CDEFG; out of the Flower Cup I, arises the Pointal H, fastened in the hinder part of the Flower like a Nail, which afterwards turns to an almost globular Fruit K, which is membranaceous, and gaping on all sides, replenished with Seeds M, which are oblong, and corner'd N, fixed to a Placenta L.

The Species of this Plant are,

1. *Cyclamen orbiculato folio, inferne purpurascens. Round leav'd Sowbread, of a purple colour towards the Root. C. B. Pin. 308. Cyclaminus folio rotundiore, vulgator. J. B. 3. 551. Cyclaminus orbicularis, rotundifolius. Dod. Pempt. 337.*

From a globular Root with small and black Fibres or Strings, it sends up many Leaves almost exactly round, growing upon Footstalks about 12 Inches long, very much resembling the Leaves of *Asarabacca*, but not quite so thick, of a dark Green on the upper side, mixed here and there with white Spots, and a purplish Colour on the under side, and somewhat notched in the Edges.

The Flowers consisting of one single Leaf, but divided into five deep Jaggs, insomuch that they appear to be so many Leaves, which

bend upwards when they begin to blow, lean on long Footstalks, are of a faint or a deep Purple, and a very agreeable Smell: When they are withered, they fall downwards intire, and the Knot or Button follows after (together with the Footstalk whereon it rests) being wrapt up in many Folds or Wreaths, till at last it reaches the Ground, and leaning upon it, it becomes larger, till it equals in Bulk the seminary Vessel of *March Violets*, which opens at Top when it is Ripe, and sets to View an uneven Seed of a darkish brown colour, which being put into the Earth, does not turn to a Germ or Bud, but to a small Knob, from whence it afterwards sends forth small Leaves, contrary to the Nature of other Plants.

Towards the End of the Summer, or Beginning of Harvest, it sends forth Flowers, and then Leaves, which, after they have held out during the whole Winter, drop off about the End of *April*, or beginning of *May*.

All the Woody Mountains of *Hungary* and *Austria*, all the Forrests, and sometimes the marshy Meadows at the bottoms of Hills in those Countries, abound with this Plant.

I have observed it in the Mountains of *Stiria*, and about *Geneva*, where it flowers in the Months of *June* and *July*. Ray.

Sometimes the Head of this Species grows longwise, and is divided as it were into two Horns, as I have observed with *J. Bauhinus*, when I frequently dug up the Roots of it in the *Sirian Alps*; and therefore *C. Bauhinus* multiplies its Species without Reason, when he makes the *Cyclaminum longius radiculatum*, & *radice instar capitis arietini Gesn.* to be a distinct Species from this. If you want further Satisfaction, you may consult the History of *J. Bauhinus*.

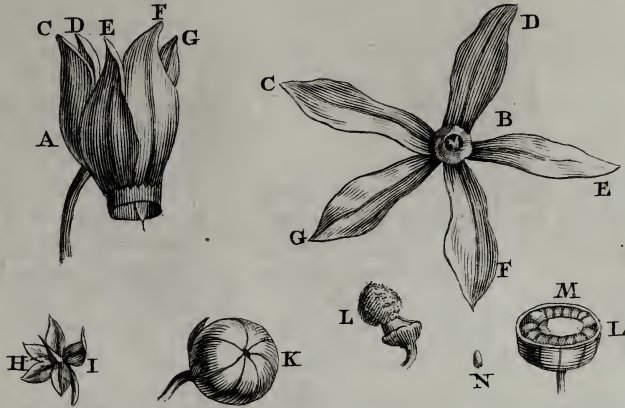
This Species varies sometimes by its white Flower.

2. *Cyclamen orbiculato folio, inferne purpurascens, flore pleno. Round leav'd Sowbread, of a purplish colour underneath, and a double Flower. H. L. Bat.*

3. *Cyclamen orbiculato folio, inferne ex viridi pallente. Broad leav'd Sowbread, of a faint Green underneath. C. B. Pin. 308. Cyclaminus adorato flore ii. Clus. Hist. 264.*

4. *Cyclamen autumnale, orbiculato, circumroso folio, subius rubente, odoratissimo, flore carneo, Corcyraeum. H. R. Par. The Autumnal Sowbread,*

Cyclamen. Sow Bread.

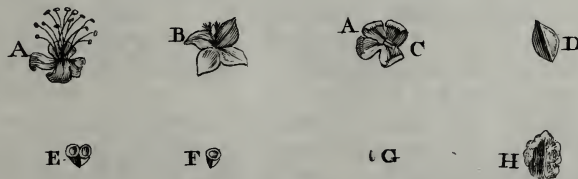


Moschatellina.

Musk wood - Crow foot.



Pimpinella. Burnet.





bread, with a round, gnaw'd Leaf, red underneath, and of a very sweet smell, with a flesh colour'd Flower. *Cyclamen de Corsou.* *Cyclamen autumnale*, orbiculato, circumscisso folio, subius rubente, odorato flore ad purpuram vergente. H. R. Par. *Joncq. Hort.*

5. *Cyclamen autumnale*, folio subrotundo, lucido, molliori & crenato, suave rubente flore, *Syriacum*. H. R. Par. *Huguetean.* Autumnal Sowbread, with a roundish, shining, soft and notched Leaf, and a Flower of a pleasant red.

6. *Cyclamen autumnale*, folio subrotundo lucido, molliori & crenato, basi rubra, flore niveo maximo, *Syriacum*, *Huguetean dictum*. D. *Chauvean Joncq. Hort.* Autumnal Sowbread, with a roundish, shining, soft and jagged Leaf, a red basis, and a very large snowy Flower.

7. *Cyclamen odoratum*, æstivo solstitio florens, folio maculato. C. B. Pin. 308. Sweet smelling Sowbread, flowering in the Summer solstice, with a spotted Leaf. *Cyclaminis odorati varietas*. Clus. Hist. 264.

8. *Cyclamen æstivo solstitio florens*, folio paulo longiore, vixdum maculato, flore dilute purpurascente, *Romanum Recentiorum*. H. R. Par. Sowbread flowering in the Summer Solstice, with a pretty long Leaf, hardly spotted, and a Flower of a faint or pale purple; the Roman Sowbread of the Moderns. *Cyclamen autumnale*, folio paulo longiore, vixdum maculato, dilute incarnato flore, *Romanum morini*. *Joncq. Hort.*

9. *Cyclamen folio subrotundo*, ampliore, flore dilute violaceo, *Pictaviensium*. H. R. Par. Sowbread with a roundish, large Leaf, and a faint violet colour'd Flower of Poitiers. *Cyclamen autumnale Pictaviensium*, dilute violaceo flore D. de Bertinieres. *Joncq. Hort.*

10. *Cyclamen autumnale*, exoticum, alterum. *Joncq. Hort.* Autumnal Exotick Sowbread. *Cyclaminum montis Libani* Corn.

11. *Cyclamen amplissimo folio*, cordiformi, sericeo & variegato. Sowbread with a very large Leaf, in the shape of a Heart, soft like Silk, and variegated.

12. *Cyclamen Hyemale*, orbiculatus foliis, inferne rubentibus, purpurascente flore, *Comm Herbariorum*. Winter Sowbread, with roundish Leaves, of a reddish colour below, and a purplish Flower. The *Comm* of the Botanists. H. R. Par. *Cyclamen Hyemale*, orbiculatus foliis, inferne rubentibus, purpureo flore, *Comm Morini Joncq. Hort.* *Cyclamen de Chio*.

13. *Cyclamen Hyeme & vere florens*, folio anguloso, amplo flore albo, purpurea basi, *Persicum dictum*. H. R. Par. Sowbread flowering in the Winter and Spring, with a corner'd Leaf, a large white Flower, a purple Basis, &c. *Cyclamen autumnno florens & hyeme*, folio anguloso, amplo flore albo, basi purpurea, *Persicum*. *Morini Joncq. Hort.* *Cyclamen de Perse*, the Persian Sowbread.

14. *Cyclamen Hyeme & vere florens*, folio anguloso, amplo flore carneo, basi purpurea. H. R. Par. Sowbread flowering in the Winter and Spring, with a corner'd Leaf, a large flesh colour'd Flower, and a purple basis.

15. *Cyclamen toto fere anno florens*, odorato, purpureo flore, *Africanum dictum*. H. R. Par. Sowbread flowering almost the whole Year, with a sweet smelling purple Flower, called the African Sowbread.

16. *Cyclamen Africanum aliud*, Gigas *Monspelulani dictum*. H. R. Par. Another African Sowbread, called the Giant by those of Montpellier.

17. *Cyclamen vernum*, anguloso folio, triplici viriditate sericea vario, maximis floribus albis, imo osculo purpurascente, *Antiochenum Nuperrum*. H. R. Par.

The Spring Sowbread, with a corner'd Leaf, distinguished into a threefold Silken green, with very large white Flowers, the lowermost little Opening being of a purple Colour. The *Antiochian* Sowbread of the Moderns. *Cyclamen vernum*, anguloso folio, triplici viriditate holosericea vario, imo osculo rotundo purpurascente, maximis floribus albis, *Antiochenum Morini*. *Joncq. Hort.*

18. *Cyclamen Antiochenum autumnale*, flore purpureo, duplici. Park. The *Antiochian* Spring Sowbread, with a purple double Flower of Parkinson.

This Species has the roundish Leaves of the Summer Sowbread, not quite so much corner'd, and full of white Spots. The Flowers are very large, consisting sometimes of ten, and sometimes of twelve Leaves, of the same colour with a Peach Flower, or that of the purple vernal Sowbread, but deeper towards the Roots.

That the Flowers have so many Leaves, is merely accidental; for there are to be found of this sort, that have no more than the usual number of Leaves.

19. *Cyclamen latifolium, auriculatum, flore suave-rubente.* H. R. Par. Broad leav'd, auriculated Sowbread, with a charming red Flower.

20. *Cyclamen folio angustissimo, auriculato, flore albo, ima sui parte purpurascete,* Byzantium Herbariorum. H. R. Par. Sowbread with a very narrow auriculated Leaf, and a white Flower, of a purplish colour in its lowermost part. The Byzantine Sowbread of the Botanists. *Cyclamen folio quinque auriculis donato, flore albo, ima sui parte purpurascete* Morini. Regium Herbariorum. Foncq. Hort. The Sowbread of Constantinople.

21. *Cyclamen Aprili florens, cordato folio, anema viriditate & albedine pieto, minimo flore.* H. R. Par. Sowbread flowering in April, with a Leaf shaped like a Heart, enamell'd with a delightful green and white, bearing a very small Flower. *Cyclamen Aprili florens, cordato folio, flore niveo, interdum purpurea basi, lactescente flore.* Foncq. Hort. *Cyclamen orientale.*

22. *Cyclamen folio longiore, anguloso & linguam Serpentis mentiente, Regium nostras.* Sowbread with a pretty long corner'd Leaf, resembling a Serpent's Tongue. H. R. Par. *Cyclamen anguloso folio, Serpentis linguam emulante* Mirini. Foncq. Hort.

23. *Cyclamen folio longiore, anguloso & linguam Serpentis mentiente, amplo flore albo.* H. R. Par. Sowbread with a pretty long corner'd Leaf, resembling a Serpent's Tongue, with a large white Flower.

24. *Cyclamen radice maxima, foliis inferne rubentibus.* C. B. Pin. 308. Sowbread with a big Root, and Leaves red below. *Cyclamen Romanum.* Eyst.

25. *Cyclamen folio anguloso.* C. B. Pin. 308. Corner-leav'd Sowbread. *Cyclaminus folio anguloso.* J. B. 3. 553. *Cyclamen verno tempore florens.* Clus. Hist. 265.

26. *Cyclamen Hederae folio.* C. B. Pin. 308. *Cyclaminus orbicularis.* Dod. Pempt. 337. Sowbread with an Ivy Leaf.

According to the Description of Dodonæus, it flourishes with broad, corner'd and Ivy-like Leaves, gently notched round the edges, of a deep Green on the upper part, but variegated with whitish Spots, of a pale White in the Navel, or middle of the Leaf, but purple on the under or back side, and after of a deep colour, tho' sometimes more faint.

The little Flowers hang upon small Footstalks, bending downwards, with their Leaves turning up, of the purple colour of a dark violet, but not so strong and deep. They have not much Smell. To them succeed the Heads or Knobs containing the Seed, with their Footstalks twisted into Wreaths. The Root is round like a Bulbus or Turnip, and somewhat broad and flat, black on the outside, and white within, and when it is dried, it becomes wrinkled.

It abounds on the Woody Mountains near Rome, bringing forth Flowers in the Month of September. Dodonæus says, it likewise grows in Picardy, Vulxin, and Artois.

This is that Species which is cultivated every where in our Gardens in England, with a purple and white Flower, flowering in the Autumn, whose Seed scarce arrives at maturity before the following Summer.

27. *Cyclamen folio Hederaceo, Polyant heo.* C. B. Pin. 308. Ivy-leav'd Sowbread, with many Flowers. *Cyclaminus Byzantinus, Polyant hes* Clus. Hist. 264.

It has a Knob four Inches broad, which brings forth 20, 50, 200 Flowers every Year. It does not seem to differ in any thing, but in the Bigness of all its Parts, and in the Multitude of Flowers springing from the same Root, from the common Ivy-like Sowbread. When I was in Italy, I observ'd them to flower during the whole Summer, and could not then perceive they differ'd any otherwise from the common Sort with the Ivy-Leaf, but in the time of their flowering: Nor did those which I observ'd in the Spring, viz. in the beginning of April, to flower plentifully, in my Road from Massa to Lucca, seem to differ either in the Flower or Leaf, from the common sort with an Ivy-leaf, but in the time of flowering only. But seeing I did not compare these Plants together, I dare not venture to determine any thing. Therefore, if you please, the *Cyclaminus radice castanea magnitudinis* of C. Bauhinus, i. e. the *Cyclaminum Byzantinum* of Clusius, is a different Species from the *Cyclamen autumnale hederae folio*.

The Root of that Plant, according to Clusius, had a very clean and smooth Skin, which just before Winter came on, brought forth Leaves, very much like the Leaves of the vernal

nal Sowbread, of a most delightful purple Colour on the under side, and on the upper stained with whitish Spots, having but few Corners. The *March* following it bore Flowers: But because in the following Years, it not only bore Leaves, but sometimes Flowers also, especially when the Air was kindly, *Clusius* did very much hesitate, and was uncertain whether he should reckon it to the autumnal, or to the vernal Sowbread. *Ray*.

M. Magnol says it is to be seen among the Rocks under the Box-Trees in many Places of the Mountain *Capouladou*, especially about *Sauvebelle*, & à las *Cambrettes*, in the Month of *March*, with purplish and white Flowers.

28. *Cyclamen radice Castanea Magnitudinis*. C. B. Pin. 308. Sowbread with a Root as big as a Chestnut. *Cyclaminus Byzantinus*. *Clus. Hist.* 264.

29. *Cyclamen radice exigua*. C. B. Pin. 308. Sowbread with a very small Root. *Cyclaminus parva radice*. J. B. 3. 553. *Cyclaminus aestivus*. *Clus. Hist.* 265.

30. *Cyclamen oblonga radice*. C. B. Pin. 308. Sowbread with an oblong Root. *Cyclaminus odoratus Clus. Hist.* 264.

31. *Cyclamen vernum, album*. C. B. Pin. 308. The vernal white Sowbread. *Cyclaminus flore albo, vernus*. J. B. 3. 554.

32. *Cyclamen verum, flore rubro Panicii Lob. observ.* 332. Spring Sowbread with a red Flower. *Cyclaminus flore rubro, graciliore*. J. B. 3. 554.

33. *Cyclamen foliis violariae, radice cordis effigie*. C. B. Pin. 308. Violet-leav'd Sowbread, with a Root in the shape of a Heart. *Cyclaminus vernus, spurius, flore lateo*. J. B. 3. 554. *Cyclamen verum, spurium, Clus. Hist. App. alt. Auct.*

Cyclamen is so called from the Greek Word *κύκλος*, a Circle, because of the round Leaves and Root of the several Species of this Genus: For when they are without both Flower and Fruit, yet they may be known by their roundish and corner'd Leaves, which are generally variegated with white and green. Their Roots are generally knobby.

This Plant, tho' it seems not to be of common Use, yet it has many Virtues ascribed to it, particularly by the Ancients. *Galen* says, That it cuts, cleanses, and opens the Mouths of the Veins, as well as it digests

and draws; which is confirmed by Experience; for the Juice of it opens the Hemorrhoids or Piles, and strongly moves to Stool, being put up in Wool. And *Mesue* the Arabian says, That being used by way of Glister, it voids tough Phlegm. It is also mixed with such Medicines as discuss Swellings, Kernels, and other hard Tumours in any Part of the Body. It likewise cures the Pinn, or Web in the Eyes, being infused with Honey, and also voids it by the Nose. *Mesue* affirms, That by snuffing up the Juice, the Head and Brain is purged from those Humours that offend it. It eases the Head-Ach, Megrim, &c. *Galen* further declares, That if the Belly be bathed with the Juice, it will forceably move it downwards, and destroy the Fœtus; and that a Pessary will produce the same Effect. And tho' the Root is weaker than the Juice, yet being either drunk, or externally applied, it will provoke the Terms. It is of good Use for those that have the Yellow Jaundice, to drive it out by Sweating, if the Patient takes 3 Drams of it in Powder, Mead or Honey Water. It conduces likewise towards the cleansing of all Deformities or Discolourings of the Skin, and all Freckles, or other Spots. *Matthioli* says, That the distilled Water from the Roots snuffed up into the Nostrils, stops bleeding to Admiration; and that if 6 Ounces of that Water be drunk with an Ounce of fine Sugar, it will stop the bleeding of the Breast, Stomach, or Liver in a wonderful manner. He says, That to hinder the Violence of it in Purging, it is convenient to mix therewith some Mastic, or Nutmeg, or a Scruple of Rhubarb. It is also of excellent Use in the Cholick, and hard Swellings of the Spleen. He affirms, that if the Root thereof be beaten with a few Peach Stone Kernels, and bitter Almonds, and afterwards laid to sleep in *Aqua-vitæ* for three Days, a drop or two of the expressed Cream thereof dropped into Ears that are Deaf, or are afflicted with a singing Noise, it will have a good Effect. The Juice mixed with Honey or Plantane Water, and used as a Gargle, cures all manner of Sores in the Mouth or Throat, and the Tooth-Ach. *Pliny* says, the Root is a good Antidote against the Poison of Serpents, and that it will kill Swine, which is contrary to the commonly received Opinion, that they love and greedily devour

these Roots; and that from thence they received the Name of *Panis Porcinus*, or Sowbread. *Theophrastus* affirms, that the green Leaves, or rather the fresh Root put into a Cloth, and applied for some time to the Privities of a Woman in hard Labour, will help her to a speedy and easy Delivery.

Gerarde likewise affirms, That the Leaves stamped with Honey, and the Juice put in the Eye, clears the Sight, and takes away all Spots and Webs, Pearl or Haw, and all Impediments of Sight; and is put into that excellent Ointment call'd *Unguentum Arthanite*. And

That, if the Root be beaten, and made up into Trochiskes or Cakes, it is reported to be a good amorous Medicine to make one in Love, if inwardly taken.

It warms, dries, cuts powerfully, and Purges the Head. It is chiefly used in the Obstruction of Women's Terms, in moving of a dead *Fœtus*, in the Jaundice, in expelling the Stone, in discharging the *King's-Evil*, and other hard Tumours. It is to be used inwardly with great Caution, and external applications are mostly in use. *Schrod.*

There is likewise made of its Flowers an Oil for the Pleurisy, to be applied outwardly: The Composition of which you may see in *Hoffman's Thesaurus Pharmaceuticus*: See xix. 3. Thus much may suffice for the *Cyclamina* or Sowbread.

TABLE LXVIII.

GENUS VIII.

Moschatellina, The Musk-wood-Crowfoot.

THE *Musk-wood-Crowfoot*, is a Plant with one single Flower A B, in the shape of a Wheel, and cut into several Segments: out of whose Cup E, rises the Pointal D, fastened like a Nail in the Center of the Flower C, which according to the famous Mr. Ray's Observation, turns to a soft Fruit, or succulent Berry, commonly full of flat Seeds.

I know but one Species of this Plant, which is,

Moschatellina foliis fumariae bulbosæ. J. B. 3.

206. Musk-wood-Crowfoot, with Leaves like bulbous Fumitory. *Ranunculus nemorosus, Muscatellina dictus.* C. B. Pin. 178. *Minimus Ranunculus Septentrionalium, herbido muscoso flore, & Muscatella Cordi.* Lob. Icon. 674.

It has a Root half an Inch, or an Inch long, thick, white, with many Coats placed after the manner of Dogs Teeth, the inferior Cavity of which receives the solid Point of the upper, succulent, without any perceptible Taste, from the upper Cavities of the Coats sending forth many Fibres or Threads, some small, white and very long, thro' which it draws its Nourishment; others larger, very white, like Threads, indented as it were by chance between the rare Intervals, and then swelling to Knobs, by which it spreads itself widely under Ground.

The Leaves are tender, and of a pale Green, indented like the Leaves of Fumitory, and rest by Couples or Threes upon oblong, tender and brittle Foot-stalks. As the Stalk differs nothing in Colour from the Foot-stalks of the Leaves, so neither is it much longer, four or five Inches long, single, girt in the middle with two Leaves opposite to one another, supported by very short and slender Foot-stalks, exactly like the rest above described, excepting only that they are much smaller. On the Top of the Stalk is placed a little Cubical Knob, made up of five Mossy Flowers, consisting only of one single Leaf; but divided into five blunt Notches or Jaggs, representing so many Leaves, with a great many yellow Chives in the Center. The Flower Cup consists of 3 Leaves. The Seed Vessel, which is thick and succulent, infolds within it four Seeds. The Flowers and Leaves smell like Musk.

With us it is in Flower about the end of *March*, or beginning of *April*. It is to be seen in shady Hedges and Thickets, as also in many Places under Trees in a loose and sandy Soil. After the Flowers fall, the Surface of the Plant is but of short Duration.

To the Flowers succeed so many Fruits, likewise consisting of a moist and soft Pulp, generally with four little Seeds within, with oblong Bellies, and flat after the manner of Linseed; as I observed this Summer, (*An.* 1685.) My Friend and Neighbour, Mr. S. Dale, having furnished me with ripe Seeds. Ray.

Since

Since the Fruit of this Plant, even when ripe, consists of a sort of soft moist Flesh or Pulp, and Seeds inclosed within, it may be justly accounted a genuin and proper Berry-

bearing Plant. *Id.*

I don't find that this Plant is known among Physicians so much as by Name, far less by its Virtues, if it has any.

S E C T. VIII.

Of Plants with one single Flower, in the Shape of a Wheel, whose Flower-Cup turns to a Fruit.

T A B L E LXVIII.

G E N U S I.

Pimpinella, Burnet.

Burnet is a Plant with a Flower of one single Leaf, in the shape of a Wheel, generally cut into four Segments, as deep as the Center, accompanied with many Chives A, or a tufted Pointal B; but the Flower-Cup C, afterwards turns to a Fruit DH, for the most part quadrangular, piked at both ends, sometimes with only one Cell F, sometimes with two Cells E, full of Seeds, which are generally oblong G.

The Species of this Plant are,

1. *Pimpinella Sanguisorba, major.* C. B. Pin. 160. Great Burnet. *Sanguisorba major, flore spadiceo.* J. B. 3. Part 2. 120. *Pimpinella sive Sanguisorba, major.* Math. 1033.

This is the *Major vulgaris* of Parkinson, and the *Pimpinella Sylvestris* of Gerard. It has a thick Root, growing obliquely, somewhat bitter and astringent. Its Leaves are twice as large as those of the *Pimpinella minor*, nine or eleven of which are joined to one Rib, resembling the Leaves of Betony, deeply snipt or jagged about the edges like a Saw, smooth, of the same Smell and Taste with the lesser, growing on both sides of the Stalk, but not directly opposite to one another. The Stalks are taper, small, smooth, two Cubits high and above, hollow within and channell'd.

The Flowers form large Tops or Tufts, or oblong Heads, of a greyish or light brown

Colour, cut into four Leaves, which rest upon four oblong quadrangular Seeds. The Flowers grow at the Top of the Stalks, nor does any Leaf grow immediately under them.

2. *Pimpinella major, præalta, auriculata, sabauda,* Bocc. Mus. Part. 2. 19. Great, rigid, tall, and auriculated Burnet. *Pimpinella auriculata, rigida.* Ejusd. Tab. 9.

3. *Pimpinella major, Hispanica, spica dilute rubente.* H. R. Par. Large Spanish Burnet, with a pale red Cone.

4. *Pimpinella major, Hispanica, altera, conglomerato flore.* H. R. Par. Another large Spanish Burnet, with a conglomerated Flower.

5. *Pimpinella Canadensis, spica longa, rubente.* H. R. Par. Burnet of Canada, with a long red Cone. *Pimpinella maxima, spica longa, rubra.* Mor. H. R. Bles. *Pimpinella maggiore, spicata, di Canada,* Zan. 161.

6. *Pimpinella maxima Canadensis.* Corn. 174. The Great Burnet of Canada. *Sanguisorba major, Americana, flore albo.* Bross. Great American Burnet.

The Root, which is vastly large, and consists of fleshy Fibres, sends up a Stalk, which at the end of the Spring, is round and jointed, from which bud forth many little Branches, adorned with Leaves growing out of the Interstices, like our great Burnet, both in Form and Colour. The Chives of the little Branches do not turn to a round Ball or Nut, but end in a Thousand little Flowers, which compose a tapering Spike. The Flowers gape by turns, the lower ones open first, and the upper ones last: Each of them consist of four little Leaves opposite to one another in form of a Cross, and are joined by a roundish Cup, furrowed with four Cavities, almost resembling

bling the Folds of a plaited or contrasted little round Purse. Out of its Cavity arise three or four Chives. The Flower is of a whitish Green. It differs in nothing from our common *Burnet*, either in Taste, Smell, or Colour.

7. *Pimpinella Agrimonides*, odorata. H. R. Par. *Pimpinella Agrimonoides* Mor. H. R. Bles. Bocc. Rarior. Plant. 58.

At first sight the Leaves of this Plant seem to resemble exactly those of *Agrimony*, and are in like manner rough and hairy, joined to a Rib after the manner of the other *Burnets*. When you touch them, they send forth a most grateful Smell. The Stalks about a Foot long, on whose Tops come forth glomerated Spikes, are loaded with furrowed Seeds of a most agreeable Smell.

8. *Pimpinella Sanguisorba*, minor, hirsuta. C. B. Pin. 160. *Sanguisorba minor*. J. B. 3. Part 2. 113. *Pimpinella Sanguisorba*. Dod. Pempt. 105.

This is the *Sanguisorba minor*, sive *vulgaris* of *Parkinson*, and the *Sanguisorba Hortensis* of *Gerarde*.

It has a long dark brown Root, with a certain astringent Bitterness, small, and compos'd of several that all unite in one; from whence arise Stalks of a Foot or Cubit long, of a light Brown, corner'd and branched; on which stand Knobs wound up or wreathed of several little Flowers set very thick, each of which, after they have produced four Leaves, of a purple Colour without, and green within, offer you numberless Chives, which are sometimes yellow, sometimes purple, sometimes short, at other times hanging down with a mossy Beard about an Inch long. Each of these little Flowers rest upon single, naked, short, quadrangular Seeds, which become of an ashy Colour when ripe. The Leaves grow in great Numbers from one Root, in Taste and Smell like a Melon, but somewhat astringent, compos'd of many small Leaves joined like Finns to a red and rough Footstalk, or small Rib; being very small, roundish, deeply jagged on every side, of a dark Green on the upper side, and Grey on the under.

It is frequently to be met with in high Meadows, and Pastures, especially in a chalky Soil.

In some Places there grows to the Root of this Plant a red Grain, which the Dyers make

use of to dye Crimson; for which Reason some have taken it for *Coccus*, or *Vermis* Grain, and call it *Coccus Radicum*, according to the Testimony of *Lucuna* and *Anguillara*.

9. *Pimpinella Sanguisorba*, minor, levis. C. B. Pin. 160.

10. *Pimpinella Sanguisorba*, inodora. C. B. Pin. 160. Prodrum. 84. J. B. 3. Part. 2. 121. Unfavorable *Burnet*.

It differs from the common *Sanguisorba minor*, both in the Leaves and the Smell. For in this the Leaves are longish, which in the other are round; in this they smell, in the other they have no Smell. It grows naturally in Spain.

11. *Pimpinella Sanguisorba*, minor, Semine majore & crassiore. Bot. Monsp.

12. *Pimpinella Spinosa*, seu *sempervirens*. Mor. Umb. 57. Prickly or ever-green *Burnet*. *Poterio affinis, foliis Pimpinella, Spinosa*. C. B. Pin. 388. *Poterium quibusdam, sive Pimpinella Spinosa*. J. B. 1. Part. 2. 410. Χαλκίον *Anguillara*, *Poterium Dalechampi*. Clus. Hist. 108.

This is the *Pimpinella Spinosa* of *Parkinson*, and the *Poterion Lobelii* sive *Pimpinella Spinosa Camerarii* of *Gerarde*.

It Springs up in Stalks that grow very close by one another, with many Branches hanging down to the Ground: but almost all the Suckers spring immediately from a red Root, of a dry and somewhat bitterish Taste, being covered with an outer white, tender Bark, under which lies a reddish one. The Leaves are very tender, placed in order over against one another upon longish little Foot-stalks, the upper ones green on both sides, the under ones of an ashy Colour, much like our *Pimpinella Sanguisorba*. The Flowers appear early in the Spring, of an herby Colour, in the form of Stars, little, to which succeed very small Berries, whitish, mixed with a little red, resting in a certain Order upon the Branches, not unlike our Currans, the Flower still appearing upon the Navel of each Berry.

This Plant is perpetually green in *Crete*, and continues many Years. It is a very great Astringent, and over all Greece it is commonly called *Στρούδα*. *Rauwolfius* saw it growing upon the Declivity of Mount *Libanus*. It flowers in the end of Summer; in Autumn the Seed is ripe, when the Leaves first break out, which then appear shrivelled, and bear some

some resemblance to the Leaves of *Spleenwort* or *Miltwaste*, but are much smaller, tho' in process of Time they appear larger.

It is used indifferently by the common People of *Crete* in all Fluxes; for they drink the Decoction of it in Water, and are thereby relieved, as they say, from their Distemper.

The Species of *Pimpinella* may be known, even when they are without Flower or Seed, by the Leaves which are generally joined close to one another, and shining.

Pimpinella seems to be a new Word (as also *Bipinella*) borrowed from the double Order of its Leaves, disposed like Pens or Feathers, or from the shape of a double Ax called *Bipennis*. And it is called *Sanguisorba*, because of its Efficacy in drinking up and stopping any Flux of Blood.

Authors of good Judgment, take it to be the same with the *Sideritis Secunda* of *Dioscorides*, to which it fully answers both in Shape and Virtues; and the *Greeks* Inhabiting the Isle of *Chio*, call it *Sideritis* to this Day. It is likewise thought to be the same Plant, which in *Perfis*, is called *Sistieptervis*, mentioned by *Pliny*, Lib. 24. C. 9. who likewise calls it *Dionysionymphas*, because of the agreeable Flavour it gives to Wine.

The 8th Species, which is the lesser common *Burnet*, is much preferable to all the rest, for its excellent Virtues in the Cure of Diseases, and its Use in exhilarating the Spirits. It warms, dries, attenuates, opens, cleanses, dissolves the Stone, cures Wounds, &c. It is of a bitter Taste. Its Principal Use is in preventing and curing Poisons and Contagious Diseases, in opening the Obstructions

of the Liver, Kidneys, Lungs, and Courses: In Gravel, Stone, or Strangury, in Colicks, Coughs, Asthma, and Difficulty of breathing, Inflammation of the Lungs, Crudity or weakness of the Stomach, in the *French Disease*. It is likewise an Antidote to *Mercury*. It is also of good Use applied externally, in cleansing Spots on the Face; and in the Tooth-Ach. It increases Milk, ripens Bubo's, and Cancerous Tumours, it cleanses and closes Wounds, as well green as old ones. It is an Ingredient in the Stomachick Powder of *Quercetanus*. And Child-bearing Women make use of the Powder of this Root in their Pains, after their being brought to Bed.

The Preparations made of this Plant are, 1. A Pickle or Candy of its Roots. 2. A Confection of its Roots and Seed. 3. A Conserve of its Seed. 4. Distill'd Water from the Root, and the entire Herb in Flower, gathered in the Month of *June*. 5. Distill'd Oil from the whole Plant with the Root. 6. Salt from the Alhes.

It may enter into Compositions instead of *Macedonian Parsley*, if that is wanting.

If the green Plant is steeped in Wine, being drunk it exhilarates the Heart, and gives the Wine a fine flavour, by communicating to it an Aromatick taste and smell, very much like that of a Musk-Melon.

Mr. *Boyle*, was wont to give the Powder of this Plant, or of the dry Root, with Conserve of *Roses* in bleeding at the Nose, spitting of Blood, or in a Consumption.

The same Powder sprinkled upon Cancerous Ulcers, hinders them from spreading further.

The Third Class.

Of Herbs and Under-Shrubs

With a Flower of one single Leaf, Anomalous.

WE have given the Name of *Monopetalous* (single leav'd) *anomalous* Flowers, to certain one-leav'd Flowers of various Forms, that cannot be comprehended under one simple Name: Such as are the Flowers of *Birthwort*, *Fox-Glove*, *Figwort*, &c. However, of these some may be said to be personated or

Masked, because they bear no bad resemblance of the Face or Beak of certain Animals by their Lips and gaping. Yet *personated* Flowers, differ from *lipped* Flowers in the Cell of their Seeds, which is quite different from the Cup; whereas the Cell of the *lipped* Flower had before been the Cup of the Flowers.

S E C T. I.

Of Herbs with a Flower of one single Leaf, Anomalous, eared or cowed.

T A B L E LXIX.

G E N U S I.

Arum. Wake-Robin, Cuckow-Pint.

A*rum*, is a Plant with a Flower of one single Leaf, *Anomalous*, shaped like an Ass's or a Hare's Ear, as *Cordus* says: From the bottom of the Flower rises the Pointal B, accompanied with a great many Embryo's C, all which turn afterwards to a Berry D, almost round, containing one or two Seeds E, that are roundish F. To which we may add, That the Leaves are not divided, or at least but gently dented.

The Species of this Plant are,

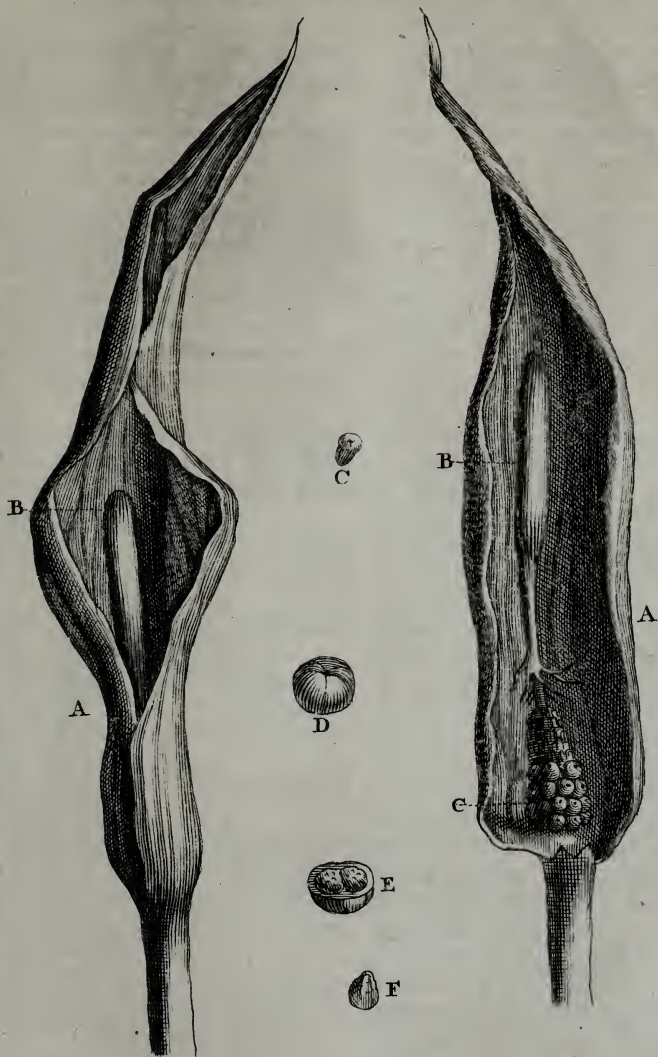
1. *Arum vulgare, non maculatum.* C.B. Pin. 195. Common unspotted *Wake-Robin*, *Arum Tabern.* Icon. 746.

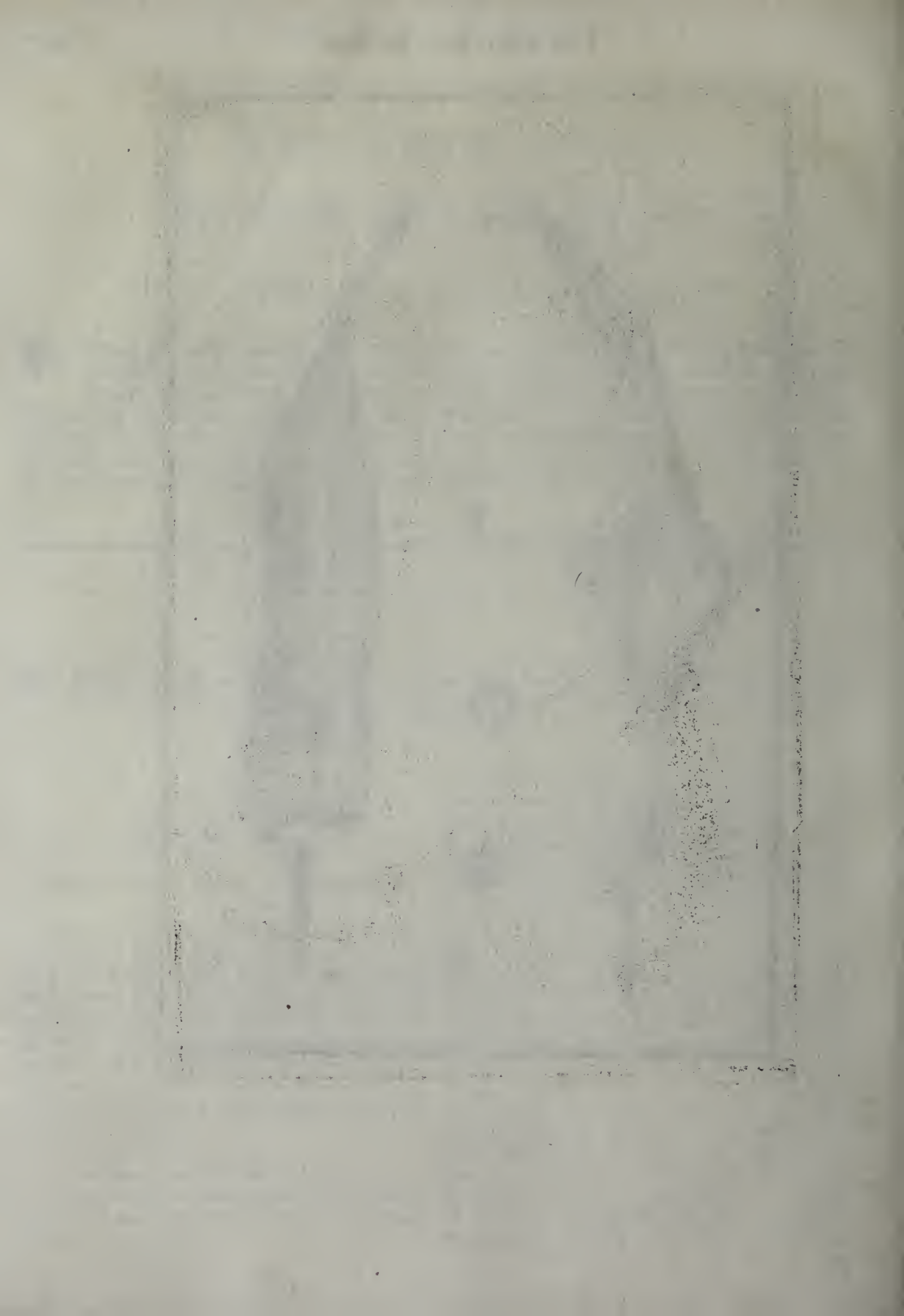
This is the *Arum maculatum*, & *non maculatum* of Parkinson, and *Arum* 2. & 3. *five maculatum maculis candidis vel nigris*, & *vulgare non maculatum* of C. Bauhinus.

The Root is *tuberosa* or knobby, somewhat taper, transverse, sending fibres quite round into the Earth, white within, propagating it self by little knobs budding out of its sides; from the one Extreme of which, three, four, but rarely five, Leaves come out, which withering in the Winter, new Leaves spring out of the contrary Extreme the next Spring.

The Leaves are oblong, triangular, called Arrows, but pretty broad, and not much winged, smooth, shining both above and below, but in some Parts more and some less green, sometimes beset with black Spots, of a most biting taste, as the Root is, and piercing the Tongue like a Needle, and that for a long time after you have tasted it: Among these rises a Stalk about 4 Inches long, taper, furrowed, on the Top of which there sticks out

Arum. Wake Robin or Cuckow Pint.





out of a long membranous Sheath a naked, oblong, dark purple Pointal, straitly begirt on the lowermost part with a Crown of Chives, under which there is a Branch or Cluster of Berries of the colour of red Lead, when ripe, and which grow very thick. After the membranous Sheath and Pointal have continued a good while, they wither and drop off.

It grows almost every where in the Beginning of the Spring about Hedges, and in shady Places.

2. *Arum maculatum, maculis candidis*. C. B. Pin. 195. White-spotted Wake-Robin. *Arum*. J. B. 2. 783. *Dod. Pempt.* 328.

3. *Arum maculatum, maculis nigris*. C. B. 195. Black-spotted Wake-Robin.

4. *Arum maculatum, folio subrotundo*. H. R. Par. Spotted Wake-Robin, with a roundish Leaf.

5. *Arum venis albis, nigris lituris maculatum*. H. R. Par. White-vein'd Wake-Robin, with black Streaks. *Arum venis albis, lituris nigris signatum*. Mor. H. R. Blef.

6. *Arum venis albis, Italicum, maximum*. H. R. Par. The great white-vein'd Italian, Wake-Robin.

7. *Arum venis albis*. C. B. Pin. 195. *Arum majus, veronense*. Lob. Observ. 326.

8. *Arum Byzantinum*. J. B. 2. 785. *Clus. Hist.* 74. The Constantinopolitan Wake-Robin.

9. *Arum Arabium, flore maculato*. H. Oxon. Sherard. Pluck. Almag. Bot. 50.

10. *Arum Ceylanicum, humile, latifolium, pistillo coccineo*. H. Amst. 97.

11. *Arum Maximum, Aegyptiacum, quod vulgo Colocasia*. C. B. Pin. 193. The great Egyptian Wake-Robin, commonly the *Colocasia*. *Colocasia*. J. B. 2. 790. *Clus. Hist.* 75. *Culcas, Faba Aegyptia*. P. Alp. Exot. 39.

The Root is tuberosse, thick and large, according to *Clusus* and *Baubin*, double the one over the other, with a Neck intervening, so that it seems to represent a little Flaggon, [P. *Alpinus*, observed the Roots to be of a double Figure, some long, and some round, about the Bigness of a Quince; these last are red without, and white within, and are observed to be of a sharp bitter astringent Taste] is eatable, white within, and propagating it self by fibres that stick to it. The Leaves grow by threes or fours, in the shape and bigness of those of the Water-Lilly, having also long and roundish Wings on both sides, thick and smooth; but on the back

side, thick oblique Nerves run along to the Edges, being derived from the Rib that runs the whole length of the Leaf, and are cut across wavyly by little Veins: but the thick Footstalk is not inserted at the end of the Leaf, but some Inches within the Leaf.

This Plant is said never to produce Flowers in its native Soil of *Egypt*, *Crete* and *Cyprus*, where it grows spontaneously and in great plenty: *Alpinus*, *Bellonius*, and others declaring, they could never see it flowering in *Egypt*, tho' they were at great Pains to observe it; and that the *Egyptians* laugh'd at them, when they desired them to shew them the Flower and Fruit of the *Colocasia*, because they assur'd themselves that it was destitute of any Flower or Fruit. But that it sometimes flowers in *Italy*, the learned *Fer. Imperatus*, and *Fab. Columna*, took notice to *Alpinus*, and his own Experience did afterwards convince him of his former Mistake.

This same Plant in the inner Garden of *Alpinus*, grew with a straight round Stalk, about the thickness of *Asparagus*, with Leaves of the same Colour, on the Top of which appeared a *vagina* or Sheath, or long Cover very like the Infoldings of *Arum*, but lesser, very thin at the Extremity, shut close of all sides, of a Golden colour mix'd with Green. That for two Days it stretched it self longwise, and sent forth a Flower about the length of one's little Finger, and the thickness of large Pepper, of a white Colour, and resembling a Serpent's Tail, or like a Serpent's Tongue thrust out of its Mouth. Since what *Columna* relates, concerning the Flowers of this Plant observed by himself, does not well agree with the Account of *Alpinus*, I shall therefore set down what he says in his own Words. It is peculiar (says he) to this Plant not to send forth a Stalk, but in lieu thereof it first brings forth a Leaf, like a little Bag, which a little Footstalk at the bottom of it distinguishes from the other Leaves; for that which is to bear Flowers, is baggy at bottom. It is likewise peculiar to this Plant, that it does not send forth one single Flower, but many, and those by threes, out of each low baggy Footstalk of the Leaves, in the shape of our common *Arum*, cowed, but not very hollow, narrow leav'd, much like the *Friars Cowl*, having an erect Catkin in the middle, tapering towards the Top, half a Foot long, and then turning

ing to a Berry like a Grape, as in the *Arum*; but then all more oblong, narrower and smother, of a fainter Colour, and odoriferous, of a grateful Smell, betwixt a Lilly and a Daffodil, and wither in three Days time, beginning to flower from the bottom, and breaking out by degrees, one after another. *Alpinus* was told, that he never brought the pale Fruit, in the shape of a Grape, to perfect maturity in *Italy*.

Columna describes the Root to be big and bulbous, much like a Squill, brown without, and whitish within, spreading it self obliquely by its Bulbs, not like that of a Reed, with rough Joints, but smooth and round.

Alpinus observ'd the Roots to differ in shape; and that the one was a large thick Root, and the other between long and round. The Leaves of the former, are observed to be much less smaller and more tapering, and of a faint green Colour; the Footstalks are likewise much finer, and the Taste much sharper and more biting. But the Root is much smaller, darker without, but within not so white as the other; and likewise of a more biting Taste; it also seems to go down into the Earth, like the Root of a Beet. He says this Species is not very common, and never bore Flowers in *Italy*, as far as he could learn.

The round ones seem'd to differ from the former, in that they were much broader than them, and as it were flat and broad, which have this peculiar to them, that they do not all bud in the middle of the End of the Root, but quite round, producing no Bud in the Center of the End of the Root. [He had said before that, some of them did bud in the Center of the End of the Root, as all other bulbous Plants do: And *Columna* says, that the Root of this Plant is bulbous.]

The Root, and the whole Plant is sharp and biting, in the same manner as *Arum*, tho' somewhat milder, and is therefore made use of in Food and otherwise. It differs from common *Wake-Robin*, in that the middle Catkin is adorned with little Flowers one half of the lower part, and on the other falls away tapering; whereas in the common *Wake-Robin*, the Catkin is small on the lower part, and thicker on the upper, in the Figure of a Pointal, without Flowers,

but smooth. That this Plant therefore is not the *Colocasia*, or *Egyptian Bean* of the Antients is so manifest, that it would be but lost Labour to spend any Time in confuting the contrary Opinion. You may, if you please, consult *F. Columna*, upon this Head. The *Egyptian Name Culcas*, seems to have induced the Moderns to embrace that Opinion.

This Plant grows spontaneously in the Rivulets and watery Places of *Egypt*; and the Inhabitants cultivate it with much Care and Industry. But it is not spontaneous in *Egypt* only, but in *Grete* likewise, according to the Observations of *Bellonius*, and in *Syria*, according to the Testimony of *Ranwolffius*; and also in *Cyprus* and *Sicily*, as others relate. Nay, *F. Donatus de Eremita*, found it frequently in the Territory of *Salerno* in *Italy*, in a certain Valley, in a watery low Ground above a Place call'd the Gate dell' *Annunciata*, as *F. Columna* relates.

The Root is much sought after in *Egypt*, *Syria*, and other Eastern Countries for their Tables, and the Inhabitants do frequently eat it boil'd; nor is there a lesser Number of Men said to be fed with it, than there are in *Germany* with Turnips, (tho' they do not want both these and Carrots) however it is not so agreeable to their taste. *F. Columna* adds, That this Root is much sought after at *Napoli* by the *Turks* and *African Slaves*, who esteem it very much in their Meals. *Boninus* writes, That it is of a Poisonous Nature, and that it is not eatable, till after it has been steep'd three Days in Water.

12. *Arum Egyptiacum, florigerum, & fructu ferens, radice magna, orbiculari*. Pluck. Almag. Bot. 51. Flower and Fruit-bearing *Egyptian Wake-Robin*, with a big round Root; *Colocasia Egyptia, florida*. Velling. Obs. 38. *Arum Egyptium, Multiflorum*. Col. Part 2. 1.

13. *Arum Maximum, Aegyptiacum, quod vulgo Colocassia, cauliculis nigricantibus, Zeylanica*. H. L. Bat. Great *Egyptian Wake-Robin*, commonly call'd *Colocassia*, with little dark Stalks, of *Zeylan*. *Colocassia Strongylorhiza, Zeylanica, pediculis & limbis foliorum atropuniceis*. Par. Bat. 15.

14. *Arum Maximum, macrorhizon, Zeylanicum*. Par. Bat. *Arum Maximum, Zeylanicum, foliis nervosis*. Prodr. Par. Bat.

It bears a near Resemblance to the *Colocasia* *Macrorrhiza* of *Alpinus*, for it is fleshy, as thick as one's Arm, growing transversely, yellow without, and pale within, being marked with a great many little Knobs and Belts, as if they were Joints. The Leaves come forth out of the Knobs in heaps. They resemble the Leaves of *Arum* in shape, but then they are much larger, equalling the Leaves of the Plantain-Tree for largeness, compacted with very strong prominent Fibres or Ribs, and undulated about the Edges, of a chearful and most delightful Green. Their Footstalks are very long and hollow, grow close in shape of a Stalk in the lower part, where they embrace one another very closely, which sometimes are as thick as one's Arm, and three Foot high. The Flower is whitish, and gives a most fragrant Smell. In other Respects, it resembles the rest of its Kind, excepting only its Bigness. It likewise possesses the same Temperament and Harmony of Qualities with them.

It grows in *Zeylan*, at the sides of Ditches, and in Lakes that become dry in Summer. It is readily multiplied by Knobs pluck'd from the Roots, and planted in the Earth. It cannot bear the Winters of *Holland*.

The Inhabitants eat the dried Roots boiled, and freed from their volatile Sharpness, like the other sorts of *Arum*.

15. *Arum Africanum*, flore albo, odorato. Prod. Par. Bat. African Wake-Robin, with a white sweet smelling Flower. *Arum Ethiopicum*, flore albo, odorato. Hort. Amot. 95.

16. *Arum Indicum*, magno flore. H. R. Par. The Indian Wake-Robin, with a large Flower. *Arum Indicum bicubitale*, amplo flore. Morisf. H. R. Blesf.

17. *Arum minus*, *Nymphaeae foliis*, esculentum. Sloane. Catal. Plant. Jam. Indian Cail, or *Tajas* the lesser. *Brassica Brasiliensis*, foliis *Nymphaeae*. C. B. P. iii. *Arum Ceylonicum minus*, canaliculis nigricantibus, & viridantibus foliis *Colocassiae similibus*. Comel. Cat. Horst. Amst. *Chou Caraibe de Terue*.

The Root of this Plant is knobby, small, but larger than a Walnut; it shoots out many Leaves raised from the Ground upon Footstalks about a Foot long, very much like those of *Colocasia*, only lesser, of a yellowish Green, exactly resembling the Leaves of the white *Nymphaea* in Colour, Shape,

Ribs, &c. The Flowers and Fruit rest upon a particular Shoot or Footstalk, as in the other *Wake-Robins*.

18. *Arum minus*, esculentum, *Sagittariae foliis viridi-nigricantibus*. Sloane. Cat. Plant. Jam. 63. *Arum minus*, *Sagittariae foliis ex Insula Barbados*. Pluck. Tab. 149. Fig. 2.

Both this and the former have a milky Leaf, according to the Testimony of *Marcgrave*, who calls the Footstalks of the Leaves Stalks, because of their length and thickness.

19. *Arum Americanum*, majus, foliis colli columbini adinstar varicoloribus. D. Lign. Great American Wake-Robin, with Leaves of various Colours like a Pigeon's Neck.

20. *Arum Americanum*, scandens, amplissimo folio, flore albo. American climbing Wake-Robin, with a very large Leaf, and a white Flower. *Colocasia Hederacea*, sterilis, latifolia. Plumier. 37. Fig. 3. who afterwards found the Plant in Flower.

21. *Arum Americanum*, scandens, angustiore folio. American climbing Wake-Robin, with a narrower Leaf. *Colocasia Hederacea*, sterilis, angustifolia. Plum.

22. *Arum Americanum*, scandens, foliis cordiformibus. American climbing Wake-Robin, with Leaves in the form of a Heart. *Colocasia Hederacea*, minor, folio cordato. Plum.

23. *Arum Hederaceum*, amplis foliis, perforatis. Plum. 40. Fig. 56. Ivy-leav'd Wake-Robin, with large perforated Leaves. *Clematis Malabarensis*, foliis vitis, colore *Dracunculi*. C. B. Pin. 301. *Lignum Colubrinum* i. *Acofia*. Lugd. 1911.

It sticks to the Trunks of Trees like Ivy. The Stalk which climbs up, is above an Inch thick, and looks scaly after the Fall of the Leaves; and is somewhat shrivell'd, and of a pale Ashy Colour: But the Seats of the false Leaves are Green, and marked with a great many little Holes. It spreads forth Roots on both sides, mostly small and short, some oblong, and thicker than a Quill, red, very flexible, and adhering to the Trunks of Trees. The inner Substance of the Stalk is white and fleshy, with Fibres intermixed. It sends forth Leaves on both sides, which grow very close to one another, especially towards the Top, almost a Foot and a half long, nine or ten Inches broad, pointed at the End, and round at the Footstalk, (which is

H h about

about a Foot long, and as thick as one's little Finger, channelled from the middle, down to the lowermost part, the rest being round, and swelling a little at the Place where it is inserted into the Leaf) smooth, membranous, tender, dyed with a delightful Greenness, brighter above than below, strengthened with a middle Nerve or Rib, and many Branches derived from it, running up obliquely. The Fruit is of an admirable Structure, much like an Ear of *Turkish* Corn, in a Cylindrical form, but round at the upper End, about five Inches long, and one Inch Diameter, very tender, smooth, and of a Golden Colour, with the Figure of a *Hexagon*, about the bigness of a *Lentil*, and dispos'd after the manner of Honey Combs. In the middle of each Figure, there is as it were a little Box, a little longer than broad, of an azure Colour. Our Author found it in many Places in *Martinico*.

24. *Arum arborescens*, *Sagittariae foliis*. Plum. 44. Fig. LX.

25. *Arum caulescens*, *Canna Indicae foliis*. Plum. 45. Fig. LXI.

26. *Arum foliis rigidis, angustis & acuminatis*. Plum. 47. Fig. LXII.

27. *Arum amplis foliis cordiformibus, radice nodosa, rubra*. Wake-Robin, with large Leaves in the shape of a Heart, with a knotty red Root. *Dracunculus amplis foliis, cordatis, radice nodosa rubra*. Plum. 48. Fig. LXIII.

28. *Arum Americanum, amplissimum folio, flore & fructu rubro*. Plum. Great-leav'd American Wake-Robin, with a red Flower and Fruit.

29. *Arum Americanum, scandens, maximum, flore flavescente*. Plum. Great-climbing American Wake-Robin, with a yellowish Flower.

30. *Arum Americanum, scandens, amplissimum folio, fructu longissimo*. Plum. Climbing-American Wake-Robin, with a vast large Leaf, and very long Fruit.

31. *Arum Americanum, acinis amethystinis, parvo flore*. Plum. American Wake-Robin, with amethyst, or purple coloured, Berries, and a small Flower.

32. *Arum bifolium, Arabicum, maculatum, Ardabar Matthei a Sancto Joseph. Par. Bat. Arum Indiae Orientalis, Ardabar dictum, foliis securis instar, maculatis*. Menz Pianta Orientale. Zan. Tab. 78.

This Plant, according to Father Mattheo,

has a Root like common *Wake-Robin*, with some little Roots joined to it. From this Root rises a Stalk surrounded with green Prickles, which rises six Hands high. On its Top grows a Pyramid, composed of green Berries in likeness of Cypress, which turn red when ripe, with a Pall in the middle. There are two Leaves, which rise equally up from the Root, from whence they derive their Original, one inserted into the other, out of the middle of which Springs up the Rod or Stalk with Leaves in the shape of a Semicircle, of a green Colour mixed with red, stained with black Spots, and are very pleasant to behold. The Fruit and Root are extremely hot, and are made use of by the Indians against cold Distempers.

33. *Arum Scorzonerae folio*. Wake-Robin, with the Leaf of Vipers Grass. *Arisarum angustifolium Dioscoridis, forte*. C. B. Pin. 196. *Arum angustifolium*. Dod. Pempt. 332.

34. *Arum Scorzonerae folio, alterum; Serpentaria minor, Saxatilis, Sicula, Arisari angustifolii foliis*. Bocc. Mus. Part. 2. 137. *Serpentaria minor, Arisari angustifolii foliis*. Ejusd. Tab. 87.

35. *Arum Angustissimo folio. Arisarum angustifolium, minimum*. Bocc. Rarior. Plant. 80.

The Root of every Species of this Plant, but especially of the spotted one, has an extraordinary Acrimony, so that if you once Taste it in the Spring when it is fullest of Juice, it will bite your Tongue the whole Day. But how biting soever it be, if it be but thoroughly dried and kept for sometime, it loses all its Acrimony, and becomes insipid.

All the Roots, while they are green and tender, drop a milky Juice, when cut open.

The *Arum*, which Galen says, was eatable in Egypt like a Turnip, was doubtless that Sort which we commonly call *Colocasia*; and yet Dr. Tancred Robinson acquainted me, from the Observation of *Helbige*, upon his return from India, that in some Places the Indians made use of this Root boil'd instead of Bread; for in that Place it grows very large and thick. Perhaps he means the said *Colocasia*, which is indeed a Species of *Arum*, and grows in great abundance in the East-Indies, of which the Indians of Java, Malacca, and the Chinese make Bread, as Bontius relates, who has given us this account of it.

Alpinus

Alpinus says, the *Colocasia* may be eaten, which is really true; but this is to be understood with caution, lest the ignorant should endanger their Life, since this Plant is in its Nature poisonous. Wherefore the People of *Java* macerate these thick Roots, after having cut them into Slices, for three or four Days in running Water, that so the mucilaginous Substance of them may be washed away: For in this Mucilage, does its Poisonous quality consist. Then having first squeez'd them in a Press, they put them out to dry in the Sun, and then beating them to a Powder, they make Cakes of them in lieu of Bread and Rice. Besides, while they boil this Root, they throw away the Water it was boil'd in, and boil it over again in fresh Water, and then they eat it with Vinegar, Oil and Pepper, as we eat red Beets. *Ray*.

In a continued quotidian Fever, the Lees or Dregs of this Root instead of a digestive, far exceeds all others. *Soame à Dolai*. Lib. 3. Cap. 14. S. 18.

The Root, (of that Species, especially which has spotted Leaves,) whether dry or green, beat, and taken to the weight of about a Dram, is a sure and infallible Remedy against Poison, or the Plague: Some add an equal Quantity of *Theriac*. *Tragus*. And a little after he says, I hardly know a better or more healthful Herb than the fresh Leaves of *Arum*, applied to any Boil or Plague Sore.

The Root boiled and taken with Honey, cures all pituitous Diseases of the Breast; for it Powerfully expectorates thick and tough Matter, and therefore is of excellent Use to such as are afflicted with an *Asthma*. It cures Ruptures, and promotes Urine.

The same dried is a notable Remedy for the Scurvy: Nor is it of less Efficacy in the Diseases of the Liver and the Womb, when they proceed from cold Causes.

For the Gout, Take of the Leaves of *Wake-Robin*, beat them, and apply them warm with Cows Dung: They are of excellent Virtue, says *Matthioli*.

Our Women make distill'd Waters of the Root of *Arum* for a Wash, which they extol highly, for removing of Wrinkles, and making the Face to shine: Which the Juice of the Roots dried in the Sun, and resembling Ceruse or white Lead, does yet more effectually;

and is commonly called *Gerfa*, from a Corruption of the Word *Cerussa*: This makes the Skin wonderfully clear and bright. *Matthiol*.

The People about *Maidstone*, a considerable Town in *Kent*, make use of this Herb and its Roots, instead of Soap, to wash their Linnen. *Skippon*.

That tender hearted *Samaritan*, *B. Beynon*, while he was alive, discovered to me, That the Roots of *Arum* or *Wake-Robin* mixt with Powder of Brimstone, was a Sovereign Remedy in a Consumption. *Ray*.

The Root must be dug up when the Plant begins to Sprout, viz. in the Month of *March*, when it is full of Juice. This Root is the basis in the Stomachick Powder of *Quercetanus*. From this Root likewise is distill'd an *Alexipharmack* Water, which is a Preservative or Antidote against the Plague, a Spoonful of which, Morning and Evening, is the proper Dose. *Schrod. Hoffm*.

The Powder taken in Wine, or other Liquor, the Juice or Powder of the Berries, or Wine wherein they have been boil'd, provokes Urine, brings down Women's Terms, when they are obstructed, purges them effectually after Child-bearing, and brings away the After-birth. Taken with Sheep's Milk, it heals the inward Ulcers of the Bowels; the distill'd Water is likewise effectual to all the abovesaid Purposes; a Spoonful whereof taken at a time cures the Itch. An Ounce or more taken at a time for some Days together, cures Ruptures. The Leaves either green or dry, or the Juice of them, cleanses all manner of rotten and filthy Ulcers, and the stinking Sores in the Nose called *Polypus*, and heals them also. The Water wherein the Root has been boiled, dropped into the Eyes, cleanses them from any Film or Skin beginning to grow over them, and removes Clouds or Mists that hinder and abate the Sight, and prevents their watering and Redness. The Root mixed with Bean Flower, and applied to the Throat or Jaws enflamed, relieves them. The Juice of the Berries boiled in the Oil of *Roses*, or the Berries alone made into Powder, mixed with the Oil and dropped into the Ear, eases the Pain and Smart of that Part. The Leaves and Roots boiled in Wine with a little Oil, cure the Piles, or the falling down of the Funda-

ment, which is likewise effected by Sitting over the hot Fumes of them.

The fresh Roots bruised, and distilled with a little Milk, yield a most Sovereign Remedy to cleanse the Skin from Scurf, Freckles, Spots, or any Blemishes whatsoever.

Before we take leave of this Genus so fruitful in Species and Virtues, we must beg leave to subjoin the Chymical Analysis of it, that so we may the better form a Judgment of the Causes of its Efficacy in several Respects. We may conjecture from its making blew Paper turn red, that it contains a Salt in some Sort like that which results from the Mixture of the Spirit of Nitre, and *Sal Ammoniac*, sweetned by a very muddy Juice, all which Parts are found in *Wake-Robin*. By a Chymical Analysis of it, we draw from it very acid Liquors, and a most Volatile concrete Salt. The Juice of the Leaves of *Arum*, a little thickned over the Fire, loses an Urinous Spirit, when it is mixed with the Oil of Tartar. As for the muddy Juice, the Fire destroys it, and separates from it abundance of Oil, Phlegm, and Earth, which by their mixture formed that viscous Liquor. But it is probable, that some Parts of the Salt of this Plant are more disingaged than the rest; for in Tasting this Plant, one feels as it were the Pricking of a Needle or Lancet, which from Time to Time, pierces the Tongue with abundance of vivacity. From whence may be assigned a Reason, why a Dram of this Root dried and powdered dissolves that thick and muddy Lympha, which in an Asthma, and an inveterate Cough, commonly stuffs the Vesicles of the Lungs; and which in a Cachexy, Scurvy, and intermitting Fevers, corrupts the Leven of the *primæ Viæ*, and obstructs the Viscera or Bowels: This Powder may be mixed with a like Quantity of Sugar, and Cinamon, in order to cure Palenefs.

TABLE LXX.

GENUS II.

Dracunculus, *Dragons*.

Dragons, is a Plant with Flowers and Fruit like *Wake-Robin*, but Leaves cut into various and deep Notches A.

1. *Dracunculus Polyphyllus*. C. B. Pin. 195. Many-leav'd *Dragons*. *Dracunculus Major vulgaris*. J. B. 2. 789. *Dracontium*. Dod. Pempt. 329.

Dracontium or *Serpentaria*, takes its Name from its Stalks, being spotted like a Serpent's Skin.

This larger *Dracunculus* or *Dragons*, has a Root that goes deep into the Earth, almost quite round, as big as to fill one's Hand, at the sides of which there use to grow many small Bulbs, by which it propagates it self, without of the Colour of Boxwood, within white, and very hot to the Taste. It has one straight Stalk, about an Inch thick or more, two Cubits high, exactly representing the spotted back of a Serpent, consisting of Membranes folded one upon another.

The Leaves, which are placed upon fungous Footstalks nine Inches long, are cut into Segments in the shape of one's Finger, with the Smoothness and Shining of *Wake-Robin*, and the same Thickness and Colour: Out of the middle of which breaks forth a Stalk, scarce the thickness of one's little Finger, from whose shaft comes forth a Sheath or Husk about a Foot long, of an herby Colour, within of a purple Red, sending forth from its Bosom a black Pointal, larger than the Pointal of the *Arum*, and ending in a sharper Point. Then follows a branchy Fruit, with red Grains when ripe. The Smell of the Flower is very stinking.

2. *Dracunculus Polyphyllus, foliis ex luteo variegatis*. H. R. Par. The many-leav'd *Dragons*, with Leaves variegated with yellow.

3. *Dracunculus Polyphyllus, foliis venis albis eleganter striatis*. Many-leav'd *Dragons*, with Leaves beautifully striped with white Veins. *Arum Polyphyllum, Dracunculus & Serpentaria dictum, foliis venis albis eleganter striatis*. Pluck. Almag. Bot. 52.

4. *Dracunculus Polyphyllus, major, Indicus, serotinus, immaculato caule*. H. R. Par. The many-leav'd, large, Indian, late *Dragons*, with an unspotted Stalk. *Dracontium majus, caule glauco, immaculato*. Par. Bat.

5. *Dracunculus Polyphyllus, minor, Indicus, immaculato caule; Dracontium caule immaculato, minus & humilius*. Par. Bat. *Arum Polyphyllum, Dracunculus & Serpentaria dictum, caule non maculato, minus & humilius*. H. L. Bat.

Dracunculus. Dragons.



Arisarum .

Friars cont.



6. *Dracunculus Zeylanicus*, *Polyphyllus*, *caule aspero*, *ex flavo & viridi variegato*.

The many-leav'd Dragons of Zeylan, with a prickly Stalk, variegated with yellow and green. *Dracontium Zeylanicum*, *ramoso folio*, *caule ex viridi & flavo variegato*, *aspero*. Par. Bat.

7. *Dracunculus Zeylanicus*, *Polyphyllus*, *caule aspero*, *virescente*, *maculis albicantibus notato*. The many-leav'd Dragons of Zeylan, with a rough green Stalk, marked with whitish Spots. *Arum Polyphyllum*, *Ceylanicum*, *caule scabro*, *viridi*, *diluto*, *maculis albicantibus notato*. H. Amst. 990.

8. *Dracunculus Zeylanicus*, *Polyphyllus*, *caule aspero*, *maculis viridi-fuscis*, *viridi-dilutis*, & *albicantibus pulchre notato*. The many-leav'd Dragons of Zeylan, with a rough Stalk, beautifully marked with dark Green, lightish Green, and whitish Spots. *Arum Ceylanicum*, *Polyphyllum*, *caule aspero*, *maculis viridi-fuscis*, *viridi-dilutis*, & *albicantibus pulchre notato*. H. Amst. 101.

9. *Dracunculus Americanus*, *caule aspero*, *puniceo*, *radice Cyclaminis*. American Dragons, with a rough scarlet Stalk, and a Root like that of Sowbread. *Dracontium Americanum*, *Scabro*, *puniceo caule*, *radice Cyclaminis*. Par. Bat.

10. *Dracunculus Polyphyllus*, *foliis lituris albicantibus obliquis*, *notatis*. Many-leav'd Dragons, with Leaves spotted with whitish oblique Stains.

11. *Dracunculus Zeylanicus*, *Spinosus*, *Polypodii foliis*, *radice repente*. Prickly Dragons of Zeylan, with Leaves of Polypody, and a creeping Root. *Dracontium Zeylanicum*, *Spinosum*, *Polypodii foliis*, *radice repente*. Par. Bat.

12. *Dracunculus Zeylanicus*, *Polyphyllus*, *caule laevi*, *ex viridi & albo variegato*. Many-leav'd Dragons of Zeylan, with a smooth Stalk, variegated with green and white. *Dracontium Zeylanicum*, *ramoso folio*, *caule ex viridi & albo variegato*, *laevi*. Par. Bat. *Serpentaria major*, *seu Dracunculus major*, *Polyphyllus*. Marcgr. 27. Edit. 1648.

This Species rises with Stalks two Foot high, round, as thick as one's Finger, variegated with green, yellow, and white, like a Serpent. Each of them carries a Leaf as broad as the Leaf of Peony, cut into four or five Jaggs; and each of these contains a thick Nerve or Rib, and is variously cut

more than the Leaves of Hawkweed or Gum-Succhory: These Leaves are smooth and green. Among the Leaves rises the Stalk that bears the Flower, as in the others, from the Top of which comes forth a Sheath or Husk, a Foot long or more, above five Inches thick, drawing to a Point at the End, which opening it self, presents a pretty thick Foot-stalk, upon which are ranged Grains in the Fashion of a Spike, as in Indian Millet, and about the Bigness of Millet, channelled, round, succulent, formed of five or six Particles, first green, then yellow, (variegated with little red Punstures,) and red when Ripe. In these Grains is contained the Seed of an Oval Figure, about the bigness of the Kernel of a Cherry Stone. The Root is round, as big, or rather bigger than a large Apple, covered with a Cuticle or Film, of a darkish-white, having many small Tendrels where the Stalks arise. It is of a sharp biting Taste like Wake-Robin.

13. *Dracunculus Zeylanicus*, *Polyphyllus*, *maximus*, *caule trifido*. The great many-leav'd Dragons of Zeylan, with a Stalk divided into three. *Dracontium Zeylanicum*, *ramoso folio*, *maximum*. Par. Bat.

14. *Dracunculus Americanus*, *Scandens*. The climbing American Dragons. *Dracontium Hederaceum*, *Polyphyllum*. Plum. 40. Fig. 64.

15. *Dracunculus Americanus*, *Scandens*, *tryphyllus & auritus*. Climbing American Dragons, with three Leaves in the shape of an Ear. *Dracontium Hederaceum*, *tryphyllum & auritum*. Plum. 41. Fig. 53.

16. *Dracunculus Canadensis*, *tryphyllus*, *pumilus*. Three-leav'd dwarf Dragons of Canada. *Arum humile*, *Arisarum dictum Virginianense*, *tryphyllum*. Pluck. Phytog. Tab. 148. Fig. 6.

This is the *Arum triphyllum Virginianum* of Morison, with a pale Flower, and a Pointal of a dark Red, which was sent from Virginia by Mr. Banister. It has a Root much like that of *Arum*, roundish, knobby, with small Fibres growing upon it; The Stalk rises from the Top of the Root, and is about nine Inches or a Foot long, spotted towards the bottom, erect, and smooth; upon which is expanded a Leaf divided into three Parts. Each of these Divisions is four Inches long, and two Inches broad, pointed and sharp at both Ends, having four Veins running longwise, with many small Fibres or Threads.

The

The Flower, which grows on the Top of its own Foot-stalk about four Inches long, is of a pale Green, like common *Arum*, containing in the Center a short Pointal of a deep purple Colour.

17. *Dracunculus Americanus, Colocasía foliis laciniatis*. American Dragons, with snipped or jagged Leaves, like *Colocasía Colocasía. Hederacea, sterilis & laciniata*. Plum. 38. Fig. LIII. Perhaps this may be the *Arum maximum, altissimas scandens arbores, foliis Nymphaeae laciniatis* of Dr. Sloane. Catal. Jam.

Upon each Knot of the Stalk it sends forth two or three long Roots, about a Line thick. The Foot-stalks are longer and thicker than those of the *Colocasía Hederacea, sterilis latifolia*, and the Leaves near to the same bigness, consistency, and Colour, deeply notched round the Edges, like the *Palma Christi*. From the middle Nerve or Rib of the Leaf, there is a pretty thick Fibre that reaches to the Extremity of each Segment.

It grows in great abundance in a certain Valley, in the Island de la Torue.

The Plant described by Dr. Sloane, had a green Stalk, with several Tendrels, by the help of which, it climb'd up the Trunks of Trees 20 or 30 Foot high; The young Leaves resembled those of the *Nymphaea*, but the full grown ones were jagged and snipped round the edges; by which it is sufficiently distinguished from the other Species.

This grows in the greater Woods of the Caribbees and *Jamaica*.

Its Leaves bruised, and mixed with Hogs Lard afford an excellent Plaister for old Ulcers in the Legs, which one of our Ship's Crew learnt from an Indian. *Dampiere*.

18. *Dracunculus Americanus, humilis, flore & fructu albo*. American dwarf Dragons, with a white Flower and Fruit. Plum.

19. *Dracunculus Americanus, pistillo, viridi longissimo*. American Dragons, with a very long green Pointal. *Arum, seu Arisarum Virginianum, Dracontii foliis, Pene viridi, longo, acuminato*. Pluck. Phytog. Tab. 271. Fig. 2.

20. *Dracunculus Indicus, folio quinquesido*. Indian Dragons, with a Leaf divided into five parts. *Romphal Pianta Orientale*. Zan. 205.

Romphal is commonly called *Ignome*; It bears an oblong Flower with one Leaf, pricked after the manner of *Tuppa*, of a yellow Colour; a penetrating Smell; out of

the Center of it rises a Pointal or Tongue like a Serpent's Tongue, but not pricked, of a yellowish Colour. The Trunk is tall, equally spotted, and of the Colour abovesaid. The Juice of it drank is pernicious. They use the Roots of it to cure the Bite of Serpent's, if the Wound is fresh; otherwise they open it with a sharp Instrument, and then apply the Remedy.

The Root is likewise a Sovereign Remedy, when bruised and applied to any Part infected with the Venereal Distemper; for it cleanses and heals.

21. *Dracunculus Indicus, folio trifido*. The Indian Dragons, with a Leaf cut into three Segments. *Arum Zeylanicum, trilobato folio, humilis & minus*. Par. Bat.

This is the *Nelen Schena* of the *Hort. Malab. Part. 13.* and the *Serpentaria triphylla Zeylanica*. Breyn. Prodr. 2.

This Dwarf kind of *Arum*, grows in shady moist Places in the Island of *Zeylan*, and is called *Pannuala* by the Inhabitants. It had this Name from the Worms that breed in putrid Ulcers, which they call *Pana*, and which the sharp Juice of this Plant kills. *Ala* signifies the Root, or rather *Inbamo*, or *Ignome* of the *Portugueeze*, which they extend to any tuberosé Roots that are fit to be eaten. For it has whitish, tuberosé, oblong roundish Roots, growing together in great Clusters, about the bigness of a Hazel Nut, and, sometimes of a Walnut, from the Seat of which, abundance of thickish Fibres pierce down into the Earth. When it is young, it sends forth Leaves that are entire, like our common *Arum*, but much less; but when it comes to its full growth, it produces Leaves twice or thrice as large, cut into two or three deep Snips like so many Leaves. These stand upon Foot-stalks six or seven Inches long, which in the lower Part are furrowed into a deep Cavity. From each of the Knobs of the Roots breaks forth a leafy Husk lapt together, and insensibly copped into a Point, without of an herby Colour, with redish Stripes running through it, and within of the Colour of Crimson Velvet with a beautiful Gloss. While this is decaying, it presents the Catkin, more slender, and shorter than the common *Arum*, and appears in this View: The whole of it is scarce four Inches long; the lower Part swells

swells somewhat, and is surrounded with small Berries of a delightful Red, and little, soft, slender, and tufted or crested *Stamina* or *Chives*, somewhat smaller above, smoother and tenderer, and dyed with a pure and unmixed Colour; in the Middle it is bigger and full of Berries, beautifully shining with a rose Colour. At length it ends in a Spike, a little taller, about the length of one's Finger, smooth, polished, intensely Red, and resembles a Pointal or a Penis. While these wither, follow the Berries, not much unlike the Eggs of *Pismires*, either for Bigness or Shape, and of a whitish Colour, growing in Clusters like the other *Wake-Robins*, containing two oblong little Stones, which falling upon the Ground, produce Leaves like those of *Cochlearia* or *Spoonwort*. The whole Plant has a hot and biting Taste, and has the same Virtues with the *Dragons* and *Wake-Robin*. The Natives eat the Root either boil'd, or dried in the Sun, which thereby loses its Heat and Bitterness.

Hitherto we have not been able to Naturalize it in *Holland*, because dreading the least Cold, it perishes. *Herman*.

Tho' the Writers of *Pharmacy* have taken but little notice of this Plant, as taking it perhaps with *Pliny*, for one and the same with *Arum* or *Wake-Robin*, yet the Virtues of it are not to be omitted, (tho' it must be confess'd, they are almost the very same with *Wake-Robin*) since *Dioscorides* has not slighted this Herb, but has distinguished it into the greater and the lesser, and described them both very largely, at least one and the same Plant in different Words, for which Reason *Galen*, *Paulus*, *Aetius*, *Scrapio*, *Oribasius*, *Matthioli*, &c. allow only one *Dracontium*. It is granted however on all Hands, that both the Plant and the Root are of excellent Use in Physick.

It warms, dries, resolves, attenuates, cuts and opens. For which Reason the Decoction of the Herb and Root is an excellent Remedy against the Scurvy; tho' it does not agree in Taste with other *Anti-Scorbuticks*: However, according to the Opinion of *Van Helmont*, sometimes there is great Virtue even in insipid Plants. The Dose of this Decoction is a Glass Morning and Evening, to be continued for the Space of a Month.

TABLE LXX.

GENUS III.

Arisarum, Friers Cowl.

Friers Cowl, is a Plant differing from *Wake-Robin* and *Dragons*, in its cowl'd Flower A.

The Species of *Friers Cowl* are,

1. *Arisarum latifolium majus*. C. B. Pin. 196. Broad-leav'd *Friers Cowl*. *Arisarum latifolium alterum*. Clus. Hist. LXXIII.

It has three or four Leaves, very much like the Leaves of Ivy or Ropeweed, soft, but pretty fleshy, of a sharp and biting Taste, standing upon an oblong Foot-stalk, winged on both sides; in the forepart they adhere to the Foot-stalk, resembling the Leaves of *Arum*, but with blunter and rounder Angles; Betwixt them shoots up a Foot-stalk two Inches long, marked with many red Spots, on which stands an oblong Flower, shaped like a *Frier's Cowl*, or like the Flower of *Birchwort*, but larger; of a dark or dusky Colour at the End, tending downwards after the manner of Rays or Spokes, otherwise white, smelling like a Dog, containing a Pestil or Pointal obtuse and crook'd, and as it were looking out of a *Cowl*. The Root is round like a Ball, less than *Arum*, blackish without, and white within, sometimes also tuberoso and oblong, at first sweet, then biting, but not so much as the *Arum*, (tho' the Antients thought otherwise) with some Fibres spread over it, as in the Lizard-Flower.

2. *Arisarum latifolium, alterum*. C. B. Pin. 196. Another broad-leav'd *Frier's Cowl*. *Arisarum latifolium quibusdam*. J. B. 2. 786. *Arisarum latifolium*. Clus. Hist. LXXIII.

3. *Arisarum flore in tenuem caudam abeunte*. *Frier's Cowl*, with a Flower ending in a small Tail. *Arisarum minus, proboscideum*. Barr. Icon. Boec. Mus. Part. 2. 61. Tab. 30.

4. *Arisarum triphyllum, Americanum, amplioribus foliis*. Three-leav'd, *American Frier's Cowl*, with large Leaves. *Dracunculus, sive Serpenteria triphylla, Brasiliensis*. H. R. Par. 87.

It is imperfectly described by *C. Bauhinus* in his *Prodromus*: wherefore we shall supply the Description from *Dodart*.

The Root, which is round, sends out many slender whitish Fibres from its Head or upper Part. The Stalk is covered below with a loose spotted Membrane. The Leaves resemble those of *Arum*. *C. Bauhinus* describes the Leaves and Flower Thus: The Foot-stalk of the Leaf is four Inches long, and smooth, on the Top of which there is a small Leaf of a whitish Green, fibrous, roundish, cut into three Segments, ending in a fine Point; The Flower resembles that of the *Serpentaria*, standing on a Foot-stalk three Inches long, five Inches in length, an Inch and a half broad, of a deep Red, channelled, with whitish Veins, running along the middle, especially on the outside, with a blackish Pointal,

oblong, brown, three Inches long, which at last produces a Spike composed of small reddish Grains, and wrapt up in long leafy Membranes.

The Root is insipid; but the other Parts Taste sweet at first, but after they have been sometime chewed, they bite the Tongue severely. It loves the shade, and must be kept up in Winter. It was sent from *Canada*.

5. *Arisarum triphyllum, minus, Pene atro-rubente*. Banist. The three-leav'd lesser Frier's-Cowl, with a deep red Pointal. *Arum triphyllum, minus, Pene atro-rubente, Virginianum*. Pluck. Phytog. Tab. 77. Fig. 5.

The Physical Virtues of this Plant, are the same with those of the two immediately preceding; which it would be superfluous and impertinent to trouble the Reader with here again. We shall therefore proceed to

S E C T. II.

Of Plants with one single Leaf, anomalous, hollow like a Pipe, and ending in a Tongue.

TABLE LXXI.

GENUS I.

Aristolochia, Birthwort.

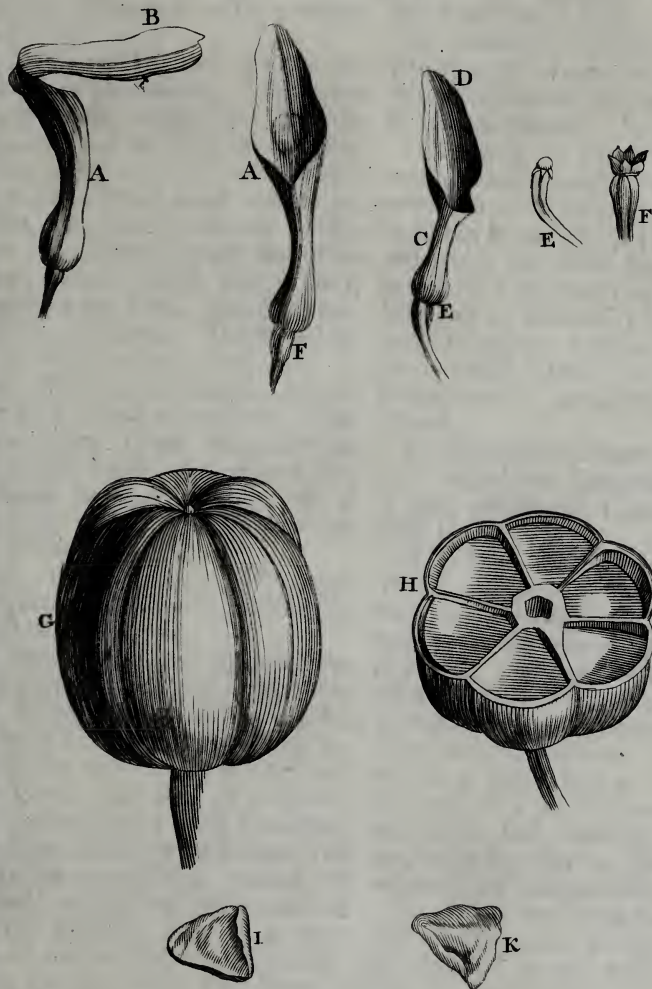
Birthwort is a Plant with a Flower of one single Leaf A C, which Flower is anomalous, hollow like a Pipe, and shaped like a Tongue B D, generally hooked; The Flower-Cup E F, turns to a Membranous, generally round, Oval or Cylindrical Fruit G, which is divided into six Cells, and full of flat Seeds, leaning upon one another, I K.

The Species of *Birthwort* are,

1. *Aristolochia rotunda, flore ex purpura nigra*. C. B. Pin 307. Round Birthwort, with a dark purple Flower. *Aristolochia rotunda*. J. B. 3. 559. Dod. Pempt. 324. This is the *Aristolochia*

rotunda vulgarior of *Parkinson*.

It sends up from one Root many quadrangular Twigs or Sprays half a Yard long, more slender than those of the *Periwinkle*; on each side of which, grow Leaves of a Size between those of *Mallows* and *Ivy*, sticking upon a very short Foot-stalk, embracing the Stalk with their Wings quite round it, more exactly round than any of the other Sorts, soft, veiny, pale; The Flowers rise out of the Wings, upon Foot-stalks half an Inch long, ending in a little Pipe of a pale yellowish Colour with a Flapper of a blackish Red, broader than in the Flower of *Periwinkle*. To these succeed round Fruits, in the shape of a small Melon, which contain many Grains ranged in order, broad, blackish, with certain Membranes between them; as also a white fungous Matter placed betwixt each Grain, which is common to the other *Birthworts*.





It grows every where in *Italy* beside Hedges, and in Ditches, in a fat Soil; nor is it less plentiful in *Spain*, *Savoy*, *Languedoc* and *Provence*. It Flowers in the Spring.

2. *Aristolochia rotunda*, flore ex albo purpurascens. C. B. Pin. 307. *Aristolochia rotunda*, altera. Clus. Hist. J. B. 3. 559. Bocc. Rarior. Plant. 5. Round Birthwort, with a white Flower mixed with Purple.

It has the Twigs and Sprays of the former, but more numerous and shorter. The Leaves resemble those of the longer Sort both in Shape and Colour, and are sustained by a longer Foot-stalk than those of the former. The Flower is mixed with white and purple, dusky within, very like the Flower of the long Birthwort. Its Fruit is longer than that of the former, shaped almost like a Pear, but more slender at the End. The Seed flat, red, and less than the former; The Root like the former, but has a yellower Bark.

It flowers earlier than the former, and has dropt almost all its Seed, when that of the other begins to ripen. *Clusus* never saw this growing but in open Fields, and among Corn, where it comes up spontaneously. It is stronger than the former, and endures the Severities of Winter better.

3. *Aristolochia longa*, vera. C. B. Pin. 307. The true long Rooted Birthwort. *Aristolochia*. J. B. 3. 560. Dod. Pempt. 324.

This also has little slender quadrangular Stalks, about eight Inches long, and sometimes longer, (about half a Yard long, J. B.) divided into many Branches, lying along upon the Ground like those of the round Sort. Its Leaves are lesser, more firm, of a fainter Colour, and supported by a long Foot-stalk, almost in the shape of Bindweed Leaves. The Flower in like manner oblong, concave, of a whitish Green, resembling the Flowers of the other round Birthwort, but of a more herby Colour on the outside, but within beset with Hairs like the rest. The Fruit is shaped like a Pear, but not so small at the pointed end, as the other round one's Fruit. When it is ripe it gapes, and presents the Seed, which is broad, red, and at last dark. In adult Plants, the Root is as thick as one's Arm, and about a Foot long: but almost all the adult ones are generally blunt at the end, and of an equal thickness all over, but after that, of a branching Point. The young

ones are very slender, and have many Fibres.

It grows in open Corn Fields, and in some Vineyards of *Savoy*, *Provence*, and *Languedoc*; and Flowers early in the Spring.

4. *Aristolochia longa*, Hispanica. C. B. Pin. 307. *Aristolochia longa* altera Clusii. J. B. 3. 560. Clus. Hist. LXXI.

5. *Aristolochia Clematitis*, recta. C. B. P. 307. The straight running-rooted Birthwort. *Aristolochia Clematitis*, vulgaris. J. B. 3. 560. *Aristolochia Sarracenic*a. Dod. Pempt. 326.

The Root of this Plant, which is of a more offensive Smell than that of any of the others, is so slender, that it never comes to be so big as one's little Finger, and creeps far and wide, and ducks deep into the Earth; is so full of Life, that tho' it be cut into little bits, yet it will easily grow, and cannot be quite rooted up without great difficulty. It has a bitter Taste, and consists of so subtle Parts, that it immediately seizes upon the Mouth.

6. *Aristolochia Clematitis*, Serpens. C. B. Pin. 307. *Aristolochia Clematitis*, non vulgaris. J. B. 3. 561. *Aristolochia Clematitis*, Baetica. Clus. Hist. LXXI.

It has long, fleshy, slender, and channelled, Twigs, whereby it sometimes climbs over the Tops of Hedges and Shrubs, twisting and twining it self about them like Bindweeds or Hops. The Leaves and Flowers do much resemble those of the other Sorts. The Root is very long, having many Twigs, like rough Bindweed, sometimes creeping above, and at other times hiding it self deep under Ground, of a pale Colour, and no disagreeable Taste, but somewhat astringent, and of an Acrimony that is easily perceived. The whole Plant smells sweet.

7. *Aristolochia Pifolochia*, dicta. C. B. Pin. 307. Bushy-rooted Birthwort. *Aristolochia Pelyrrhizos*. J. B. 3. 561. *Pifolochia*. Dod. Pempt. 325.

8. *Aristolochia Pifolochia*, minima, incana. The least, whitish bushy-rooted Birthwort. *Pifolochia minima*, incana. Bocc. Mus. Part. 2. 109. Tab. 88.

9. *Aristolochia Pifolochia*, altera. J. B. 3. 563. *Pifolochia Cretica*. C. B. Pin. 307. *Pifolochia altera*, Sempervirens Clusii. Hist. App. 1. CCLX.

10. *Aristolochia Polyrrhizos, auriculatis foliis, Virginiana*. Pluck. Phytog. Tab. 78. Fig. 1. The bushy-rooted Birthwort, with Leaves in the shape of an Ear, from Virginia.

11. *Aristolochia Pistolochia, seu Serpentaria Virginiana, caule nodoso*. Banister. Pluck. Phytog. Tab. 148. Fig. 5.

12. *Aristolochia Orientalis, foliis lanceolatis*. Oriental Birthwort, with Leaves in shape of a Lancet. *Aristolochia Maurorum*. C. B. Pin. 307. *Aristolochiis similis Rhasus & Rumigi Maurorum*. J. B. 3. 563. *Maurorum Rhasus & Rumigi*. Lugd. Bat. App. 29.

It has some Smell, but a disagreeable one: From the Root there generally grow four Shoots or Cyons, whitish, slender at the Root like a Thread, from which on the upper Part hang seven or eight small Leaves on both sides, ashy, opposite to one another, resembling the Leaves of the Fern of Florida, both in Size and Situation, unless that on the lower part they are lapped, like the smaller Sage. Among the lowermost of these (for the uppermost are a little more distant from one another) do stick Flowers like those of Birthwort, but a little larger, and of a darker Colour, and longer Foot-stalk. The Root is thrust very deep, and is of a dry and hot Quality, as *Rauwolfius* thinks appears from its Bitterness.

13. *Aristolochia Cretica, scandens, altissima Pistolochie foliis*. The tall climbing Birthwort of Crete, with the Leaves of Hartwort. *Aristolochia quarum quoddam genus, arbores scandens*. Bellon. Obs. Lib. 1. Cap. 17.

14. *Aristolochia Cretica, flore maximo, fructu odorato*. Birthwort of Crete, with a very large Flower, and a sweet smelling Fruit.

15. *Aristolochia Orientalis, clematidis recta, flore Longissimo*.

16. *Aristolochia Chia, longa, folio minori, subrotundo, flore tenuissimo*.

17. *Aristolochia Chia, longa, subbirsuta, folio oblongo, flore maximo*.

18. *Aristolochia Orientalis, rotunda, folio oblongo, cordiformi, flore, tubulato, luteo*.

19. *Aristolochia Orientalis, humilis, folio amplissimo*.

20. *Aristolochia Clematidis 2. fronde perpetua, odora*. V. Lufft.

21. *Aristolochia Clematidis, Indica, flore albicante*. Careloe-vegon. H. Mal. Part. 8. 49.

The Root is slender, ligneous, of a strong

Smell, and of a sharp and bitter Taste. The Stalks are parted by Knobs, the older ones of an ashy Colour, and the younger Green. The Leaves bud forth out of the Joints, being round and oblong, pointed, thin, standing upon little slender light-green Foot-stalks, and full of Nerves. The Flowers agree with the rest in form, being of a Dark-green on the outside, and within of a dusky red dark. The Fruit is round and oblong, agreeing with those of the same Kind in the Figure and Number of their Cells, and containing a great many triangular, flat, greenish and whitish little Tallies or Plates, in each of which there is one flat Seed, shap'd like a Man's Heart, of a yellow and redish Colour, a bitter and biting Taste, and an aromattick Smell, much like that of green Ginger.

22. *Aristolochia longa, scandens, foliis Ferri equini effigie*. Plum. 91. Fig. CVI. Long-rooted, climbing Birthwort, with Leaves in the shape of a Horse-Shoe.

This Plant stands upon a Root above a Foot long, almost an Inch thick, diving straight down into the Earth, divided into several Shoots at the lower end, covered over with a black thick Bark, having a great many Fissures all along from one end to the other, yellowish, and very bitter to the Taste. It sends forth Stalks which are very slender, smooth, and taper, that climb over Hedges, and are parted by a great many Joints. At each of these Joints grows a Leaf, cut in the shape of a Horse-Shoe, with obtuse Horns at the End, about an Inch long, with a Foot-stalk about an Inch long, smooth, membranaceous, on the upper Part of a delightful Green, but on the under somewhat more pale.

The Flowers are much the same in Shape, with those of our Birthwort, but much larger at their openings, having in like manner a pointed Tongue, being of a Pale yellow, and full of Dark-red Lines.

The Fruit is about as large as a Pigeon's Egg, hexagonal on the lower obtuse End, with round Corners rising like ridges, which are divided into six little Cells within, full of Seeds, which are black, flat, and very small, one end being round, and the other pointed, with plain sides resting upon one another.

It is found in many Places in *St. Domingo*, in Flower in the Months of *November* and *December*, and in Fruit, in *February* and *March*.

23. *Aristolochia Americana, scandens, foliis oblongis, radice repente*. Plum. American climbing *Birthwort*, with oblong Leaves, and a creeping Root.

24. *Aristolochia Americana, flore è viridi flavescente, radice repente*. Plum. American *Birthwort*, with a yellowish Green Flower, and a creeping Root.

25. *Aristolochia Americana, folio cordiformi, flore longissimo, atro-purpureo, radice repente*. Plum. American *Birthwort*, with a Leaf shaped like a Heart, a very long Flower of a blackish purple Colour, and a creeping Root.

26. *Aristolochia Americana, folio Hederaceo, trifido, maximo flore, radice repente*. Plum.

27. *Aristolochia Americana, Asari folio, umbilicato, flore longissimo, radice repente*. Plum.

Cicero informs us, in his first Book of *Divination*, that this Plant received its Name from *Aristolochus* its Inventor, and he has hardly been able to preserve himself from *Calumny* upon that Account. For they contend that this Name was given it, because of its Efficacy in relieving Women in Child-Bed. But pray, why might it not have had its Name from *Aristolochus*, and yet be of use to Women in that Condition at the same time? For it is hardly credible, that *Cicero* fram'd this Story out of his own Brain, but highly probable, that he received this Account of it from some Antient Author, whose Writings are now lost: Which is so much the more likely, because we read in *Galen*, in the Poem of *Andromachus* ὁ λέπτω ῥίζαν Ἀεισολόχου, The small or slender Root of *Aristolochus*. The Scholiast of *Nicander* brings *Aristotle* as an Evidence, that *Aristolochia* or *Birthwort*, was found out by a Woman. However 'tis highly probable, that the Inventor's Name was given to the Plant, but whether Man or Woman it matters not.

They indeed seem to have most Reason on their side, who say it received this Name from its being *δεῖσιν ταῖς λοχείαις*, a Sovereign Remedy for bringing away the After-birth. And we have the Authority of *Dioscorides*, that *Aristolochia* received its Name, from its giving the best Relief to Women

in Child-bed, towards bringing away the After-birth. *Lib. 3. Cap. 4.* *Pliny* says, that Child-bearing Women reckon'd *Aristolochia* or *Birthwort* among the most excellent Plants, because it relieved them in bringing away the After-birth. So much for the Etymology of the Word. Let us now come to examine the Virtues of the Plant, which we shall find to be more considerable than all Words, and all Criticisms.

The Root of both the first, second, and third Species is reckon'd on all Hands to be hot and dry. It discusses, attenuates, and opens with a gentle absterfion or cleansing; the round *Birthwort* however has more subtle Parts, and the long more gross ones. That Species which is call'd *Clematitis*, (Num. 5. and 6.) says *Galen*, is more fragrant, and therefore the Perfumers make use of it in their Ointments; but it is not so proper for Medicine, nor is it compos'd of near so subtle Parts as the round Species. *Lobelius* prefers the bushy-rooted *Birthwort*, (Num. 7.) to both the round-rooted and long-rooted *Birthworts*, both for its delicious Aromatickness, and for its more powerful Virtues in Physick; for which Reason it is more proper to be put into the *Theriacks*, both of *Andromachus* and *Galen*, than any of the rest. However, the common *Clematitis* is found to have less Efficacy than either of the other two.

Both the long and the round *Birthworts* are good for the Head, Liver, and Lungs especially. For which Reason, they conduce very much towards resolving and expectorating any tartareous Mucilage, moving of the Terms, breaking of internal Tumours, and expelling of Poison. Besides, the Infusion of the Long-rooted *Birthwort* is very much used for drying of the Itch or Scab; and it is of frequent use in drying and cleansing of Wounds.

The first Species is of greatest Power and Virtue, especially in making the Terms flow, and in bringing away the After-birth. *Schrod.*

The famous *Hoffman* distinguishes their several Virtues thus. The long-rooted *Birthwort* is extol'd in putrid Ulcers and Wounds, in blemishes of the Skin, and in cleansing the Teeth: The round-rooted *Birthwort* is commended in the Affections of the Breast from gross and tough Humours, in Flatulencies,

cies, in Pains of the Stomach, in Hiccoughs, in Ruptures, where clotted Blood is to be dissolved, in Obstructions of the Spleen, &c. For it expells various Excrements by Urine, by the Terms, and the Skin.

The Principal Virtue of both (as the Name declares) is to Purge the Womb after the Birth, and to make the Terms or Courses flow. They are so efficacious (says *Lobelius*) especially the long and the bushy-rooted ones, that in an equal and small space of time, being partly given inwardly, and partly administered by way of Pessary, they brought away a Fœtus that had been struggling to make its way for a Day and a half, and the torn After-birth, after the Mother had been tormented almost to Death for near three Days. It is generally given in a Decoction for the Affections of the Womb.

Fuschius and *Dodonaus* are of Opinion, That the *Arisfolochia Clematidis vulgaris*, may be used in Physick in place of the other Species, since it wants neither Bitterness nor Acrimony. *Anguillara* has observed, that the Root of this Species is more aromatick than any of the rest; and *J. Bauhin* does not make the least doubt, but this was that which *Andromachus* and *Galen* made use of in their *Theriacks*, by the Name of *Arisfolochia tenuis*. Be that as it will, the Leaves of the Species we are speaking of are very bitter, and do not redden blue Paper: The Root reddens it a little, and is aromatick and very bitter. This Plant by a Chymical Analysis, affords abundance of acid Liquor, much Oil and Earth, and a little urinous Spirit, but no volatile concrete Salt. Its fixed Salt does not make the Solution of Sublimate turn yellow; from whence we may conjecture, that the Salt of Birthwort is much of the same Nature with the Salt of Coral, and such as it would be if one should pour upon it more acid than is sufficient to saturate the Coral. In fine, the Salt of Birthwort contains a little *Sal Ammoniac*, and is wrapped up in abundance of Sulphur. The extreme Bitterness of this Plant, is the Cause why it is not given in Potions; but the Powder of it is given from a Scruple to a Dram, and the Extract from half a Dram to four Scruples. It is of excellent use for the Fits of the Mother, the Green Sickness, the Asthma, and intermitting Fevers.

TABLE LXXI.

GENUS II.

Rapuntium, Rampions: Or, Wild Bell Flower.

Rampions is a Plant with a Flower of one single Leaf A B, which is *anomalous*, hollow like a Pipe, and channelled or furrowed D, divided, as it were so many Fingers, into a great many Parts in the Shape of a Tongue C, defended by a *Vagina* or Husk E, which enfolds the Pointal F. When the Flowers decay, the Flower Cup turns to a Fruit H, divided into three Cells I, full of Seeds L, which are generally small, adhering to a *Placenta* K, which is divided into three Parts.

The Species of this Plant are,

1. *Rapuntium Maximum, coccineo spicato flore.* Col. in Rech. 880. The great Rampions, with a Crimfon Spiked Flower. *Rapuntium galeatum, Virginianum seu Americanum, coccineo flore majore.* Moris. Hist. Oxon. Part. 2. 446.

2. *Rapuntium Americanum, coccineo flore, lineis albis eleganter picto.* American Rampions, with a Crimfon Flower, beautifully striped with white Lines. *Rapunculus galeatus, Americanus, flore coccineo, lineis albis eleganter striato.* Pluck. Almag. Bot.

3. *Rapuntium Americanum, flore dilute cæruleo.* H. R. Par. 105. American Rampions, with a light blue Leaf. *Rapunculus galeatus, Virginianus, flore violaceo, majore.* Moris. Hist. Oxon. Part. 2. 466.

4. *Rapuntium Americanum, floribus albis.* American Rampions, with white Flowers. *Rapunculus galeatus, Virginianus, immaculati candidioris.* Hort. Oxon.

5. *Rapuntium Americanum, Virga aurea foliis, parvo, flore subcæruleo.* American Rampions, with the Leaves of Golden-Rod, and a blueish Flower.

6. *Rapuntium Americanum, altissimum, foliis Cirsii, flore virescente.* Plum. The tall American Rampions, with the Leaves of Cirsium, or Melancholy Thistle, and a greenish Flower.

7. *Ra-*

Rapuntium .

Rampions





7. *Rapuntium Americanum*, foliis *Cirsii lucidis*, flore multiplici, coccineo, conglobato. Plum. American *Rampions*, with shining Leaves of *Cirsium*, and a Crimson conglobated Flower, consisting of many Flowers.

8. *Rapuntium urens*, *Soloniense*. Morif. Hort. Blesf. The burning *Rampions* of *Blys*. Bocc. Rarior. Plant. 20. *Rapunculus galeatus*, *Blesensis seu Soloniensis* flore violaceo, minore. Morif. Hist. Oxon. Part. 2. 467.

The Root of this Plant is about the thickness of one's little Finger, whitish, consisting of a great many gathered together into a Tuft, like that of *Swallow-wort*, not without Fibres. The Stalk is a Foot, or two Foot long, and in moist Places longer. The Leaves are three Inches long, one broad, thin, jagged round the Edges, of a pale Green, encompassing the Stalk with their broad Bottom. The Flowers rising out of the Bosoms of the Leaves [there are a great many of them on the Tops of the Stalks, and little Branches as it were in Spikes] are of a blueish purple Colour, at Bottom entire and fistulous, but at the Edges divided into five Segments, somewhat resembling the Cardinal Flower, or that of the *Crimson Rampions*. Next to them follows a reddish shining Seed, inclosed in triangular Cells, like the other *Rampions*, and falling out of the Holes, which are bored as it were in the Cells.

The whole Plant is of a most fiery and burning Taste; and inflames and burns the Tongue when tasted like Fire: and in whatever Part it is wounded, it sends forth a Milky Liquor.

It grows every where in the wet Heaths and old Forrests about Blois; and all over the Marshes and Heaths, and among the Ditches about *Chambort*.

9. *Rapuntium Americanum*, *Trachelii* foliis, flore purpurascens. Plum. American *Rampions*, with the Leaves of *Throatwort*, and a purple Flower.

10. *Rapuntium urens*, flore purpureo-cæruleo. Burning *Rampions*, with a blueish purple Flower.

11. *Rapuntium urens*, flore albo. Burning *Rampions*, with a white Flower.

12. *Rapuntium Africanum*, minus, angustifolium, flore violaceo. The lesser, narrow-leav'd *African Rampions*, with a violet Flower. *Campanula minor*, *Africana*, *Erini facie*, *caulibus procumbentibus*. H. L. Bat.

13. *Rapuntium Creticum*, minimum, *Bellidis* folio, flore maculato. The smallest *Rampions* of *Crete*, with a Daisy Leaf, and a spotted Flower.

14. *Rapuntium Æthiopicum*, violaceo galeato flore, foliis *Pinastri*. Breyn. Cent. 1. 173. *Æthiopian Rampions*, with a violet crested Flower, and Leaves like a wild Pine Tree.

From a ligneous Root it produces Rods of nine Inches, and sometimes larger, which are ligneous, small, and sometimes bushy; with Leaves an Inch long, very narrow, stiff, three-corner'd, like those of the wild Pine Tree, after the manner of the *Chamepeuce* of *Alpinus*, and growing every where in great Numbers. The Flowers which stand upon long Foot-stalks, on the Tops, and sometimes on the Sides of the little Rods or Branches, do not much differ from the Cardinal's Flower, but are of a violet Colour, not much larger than those of the *Ajuga*, consisting of a Lip which is divided before into five Lappets, but at Bottom entire and fistulous. From the Center rises up a long Stile or Pointal instead of a Cowl, on the Point of which rests a thick, oblong, whitish, and on the forepart, hairy Head, after the manner of other crested *Rampions*. Breynius did not see either the Fruit or Seed.

15. *Rapuntium Æthiopicum*, cæruleo galeato flore, foliis *Coronopi*. Breyn. The *Æthiopian Rampions*, with a blue crested Flower, and Leaves like those of *Coronopus*.

It is a most beautiful and low Plant, having a great many green, hairy and taper little Branches, through which you may behold the Leaves placed in no regular, but confused Order; they are about an Inch long, narrow, rough, divided into several lateral Lappets, like *Buckshorne*, or rather like the *Leucanthemum* or *Camomil* of *Alpinus*. The little Twigs or Branches end in slender, naked, smooth Foot-stalks, four or five Inches long, whose Tops are again often divided into two little Foot-stalks about an Inch long, on each of which grows a Flower twice, nay three times as big, emulating the heavenly beauty of the *Blue-bottle*, or of the *Lazuli*, and marked in the middle with a long white Stain; being divided on the forepart into short and wide Fissures, it derives its Original, like the first Species, from a little hairy Stalk with five Leaves.

16. Ra-

16. *Rapuntium Ethiopicum, caeruleo galeato flore, foliis Dentatis.* Breyn. Cent. 1. 175. The Ethiopian Rampions, with a blue crested Flower, and indented Leaves.

This Plant has little slender Stalks spread along upon the Ground, growing thick, a Foot and a half long, and sometimes longer; cloathed with little thickish Leaves, jagged about the Edges, placed one after another in Order, and often bending to one Side. The

Flowers come out of the Top Branches or Twigs, among the Leaves lengthwise, somewhat spiked, of the Figure and Size of the former, but of a light blue Colour.

The *Rapuntium* differs from the *Rapunculus*, and the *Campanula* in the Shape of its Flower.

This Genus is of no use in Physick, and therefore we shall proceed without Delay to

S E C T. II.

Of Plants with a Flower of one single Leaf, anomalous, and gaping on both Sides.

T A B L E LXXII.

G E N U S I.

Bignonia.

Bignonia is a Plant with a Flower of one single Leaf, anomalous, fistulous, gaping on both Sides, and as it were double lipped. The Pointal C, rises out of the Flower-Cup D, fixed like a Nail into the hinder part of the Flower B, which afterwards turns to a Fruit or Cod E, divided into two Cells F, by an intermediate *Septum* or Fence G, full of Seeds, which are generally flat H, and winged on both Sides I K.

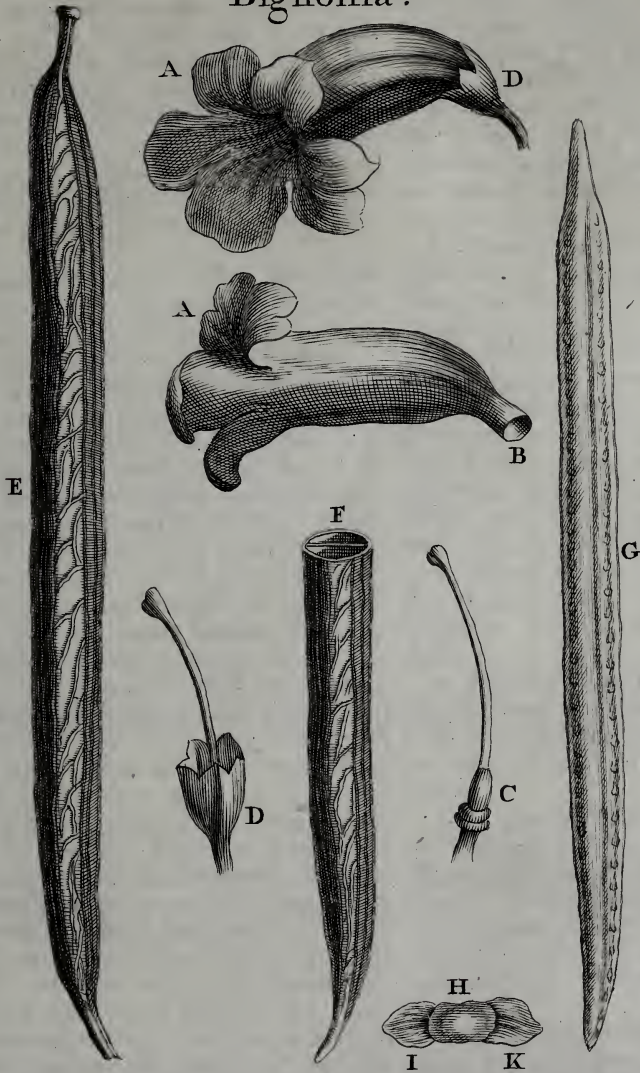
The Species of *Bignonia*.

1. *Bignonia Americana, Fraxini folio, flore amplo, Phæniceo.* American *Bignonia*, with an Alhen Leaf, and a large purple-coloured Flower. *Gelsemium Hederaceum, Indicum.* Corn. 102. *Virginia Jasmine.*

This Plant has a lively and ligneous Stalk, thin set Wood, full of Shoots, pithy, of a pale Colour, rough Bark, blackish, manyfold, being full of Gaps on the outside, and split into a great many Fibres that resemble a Root, after the manner of a Vine. The Branches are luxuriant on all Sides, after the

manner of Elder, being full of Pitch, slender, jointed and herby. [Ferrarius gives this Plant a slender, jointed, clammy, and weedy Stalk.] The Leaves rise opposite to one another on both Sides of the Joints, divided like those of the Service-Tree, or the *Mollis* of *Chusius*, and notched in like manner, taking at first like *Mushromes*, but afterwards drying without biting. In the Month of September, appears a thick Bunch or Tuft upon the Tops of the Branches, as it were certain little Scarlet Twigs wound up into a Clue. These little Balls are the Gemms of the Flowers, which are by degrees spread out into oblong Cups of a light Scarlet Colour, and take the same Shape with the *Digitalis* of the Moderns, [with a little gaping Mouth bending down into five Lips, the lower Belly begirt, the middle bulging out, and the Neck straiter.] When these wither and decay, there is a Cod appearing out of the dry Flower-Cup, green with a little mixture of Red, as long as one's Finger, small at both Ends, bulging in the middle, divided into two Parts both below and above, by a little rising bunch or Brawn, full of Seeds, as in the yellow *Leucium*, which are small, red, and membranaceous. We call it *Hederaceous*, because there appears a certain Roughness at all the Joints, compos'd of innumerable Hairs, by which it clings and adheres close to

Bignonia.





to the next Wall or Stay, or Trees planted near it, like Ivy, and therefore tho' in its own Nature, it is no better than a Creeper, yet by this Means it soars on high. But those Curls or Tufts by which it lays hold of Props, do not arise from the whole Body of the Plant, as in Ivy, but only from the Joints alone. The Root creeps upon the Surface of the Earth; nor is it propagated alone by Seed, but likewise by Slips tore off: For it seems to have as many beginnings of Roots, as it has Knots, upon which one of these fibrous Asperities, which we told you would form a Root, if they were thrust into the Earth.

2. *Bignonia Americana*, arbor, flore luteo, Fraxini folio. Plum. *Bignonia Americana*, lutea, Fraxini folio, siliquis angustioribus.

3. *Bignonia Americana*, capreolis donata, siliqua brevior. American *Bignonia*, having Tendrels, and a short Pod. *Clematis tetraphyllos*, Americana, *Digitalis* flore. H. R. Par. *Clematis Americana*, siliquosa, tetraphyllos. A. R. Par. 71. *Clematide tetraphylla*. Zan. Hist. 74.

This rare and beautiful Foreign Plant, sends up many Stalks from a perennial ligneous Root. Such as are full grown are likewise Woody, but the younger are more tender, long, jointed, round, slender, about the Size of Rushes or Fiddle-Strings, which this Plant uses like Tendrels (after the manner of leguminous and bacciferous Plants) and climbs up the next Trails and Props, and Arbours, by which it easily fastens it self to them, and covers them quite over: Because it abounds with Leaves of a delicate Green, near the Colour of a Peach, or that which is commonly called the *Hemionitis*, betwixt which comes forth a crooked Tendrel, by the help of which it lays hold of every thing near it. The Flowers hang upon the Stalks at the Place where the Leaves rise, upon a Foot-stalk about an Inch long, prettily incurvated, oblong, hollow, round, in Form and Size, like the Flowers of the lesser yellow Foxglove, divided likewise at the Edges, by five Jags, of a Colour like that of the Shell of a Hazel Nut, or Cinamon, with four Stamina within, each of which bearing two foliaceous or leafy Chives, marked with black Spots. Then follow the Pods in the Shape of the *Smilax hortensis*, in which the Seed is contained.

It out-lives the Winter, and can bear Cold very well, unless it is extraordinary severe. It is to be seen cultivated in Gardens at Florence.

4. *Bignonia Americana*, capreolis aduncis donata, siliqua longissima. American *Bignonia*, with crooked Tendrels, and a very long Cod. *Clematis quadrifolia*, flore *Digitalis* luteo, clavicularibus aduncis. Plum. 82. Fig. 24.

5. *Bignonia Americana*, bifolia, scandens, flore vidaceo, odore, fructu ovato, duro. Plum. American two-leav'd climbing *Bignonia*, with a violaceous Sweet-smelling Flower, and an oval hard Fruit.

6. *Bignonia Americana*, bifolia, scandens, siliquis latis & longioribus, Semine lato. Plum. American two-leav'd climbing *Bignonia*, with broad and long Cods, and a broad Seed. *Bignonia Americana*, siliquis longioribus, fuscis, Semine spadiceo, magno. Sur.

7. *Bignonia Americana*, bifolia, scandens, flore è luteo purpurascens, inodoro, fructu ovato, duro. Plum. American two-leav'd climbing *Bignonia*, with a Flower of a Colour, between yellow and purple, without Smell, with an oval and hard Fruit.

8. *Bignonia Americana*, arborescens, Buxi folio tenuiore. Plum. The Tree-like American *Bignonia*, with a small Leaf like the Box Leaf.

9. *Bignonia Arborescens*, folio singulari, undulato, siliquis longissimis & angustissimis. Plum. The Tree-like *Bignonia*, with one undulated or waved Leaf, and very long and narrow Cods.

10. *Bignonia arbor Indica*, foliis cordiformibus Pajanelli. H. Mal. Part. 1. 77. The Indian *Bignonian* Tree, with Leaves shaped like a Heart. This is the *Clematis arborea Malabarica*, maxima, fetida, juglandis folio, pinnis longioribus, flore albicante, amplo, fetido, siliquis compressis latissimis of Breynius. Prod. 2. 34.

11. *Bignonia arbor Indica*, foliis oblongis. The Indian *Bignonian* Tree, with oblong Leaves. *Palega Pajanelli*. H. Mal. Part. 1. 79. This is the *Clematis arborea Malabarica*, maxima, fetida, Juglandis folio, pinnis rotundioribus, flore albicante, amplissimo fetido, siliqua compressa, latissima of Breynius. Prod. 2. 34.

12. *Bignonia Americana*, arborescens, Pentaphylla, flore roseo, major, siliquis planis. Plum. American Tree-like five-leav'd *Bignonia*, the greater,

greater, with a roſie Flower, and flat Cods.

15. *Bignonia Americana*, *arborescens*, *Pentaphylla*, *flore roſeo*, *minor*, *siliquis angulatis*. Plum. American Tree-like, five-leav'd *Bignonia* the leſſer, with a roſie Flower, and angular Cods.

M. Tourneſort ſays, he call'd this Plant *Bignonia*, to expreſs the extraordinary Eſteem and Veneration he had for the Illuſtrious Abbe *Bignon*.

T A B L E LXXIII.

GENUS II.

Digitalis, Fox-Glove.

Fox-Glove is a Plant with one ſingle, anomalous, fiſtulous Leaf A B, open on both Sides, and as it were double-lipped E F G H. From whoſe Flower-Cup K, riſes the Pointal I, fixed like a Nail to the hinder part of the Flower C D, which afterwards turns to a Fruit L O, or a pointed, double, gaping Shell N O, divided into two Cells M P, and full of Seeds Q, which are generally ſmall.

The Species of Fox-Gloves are,

1. *Digitalis Purpurea*. J. B. 2. 812. Dod. Tempt. 169. Purple Fox-Glove. *Digitalis Purpurea*, *folio aſpero*. C. B. Pin. 243. This is the *Digitalis Purpurea vulgaris* of Parkinson.

Sometimes this Species grows above half a Yard long, with a Stalk an Inch thick, angular, hairy, reddiſh, and hollow, from a fibrous and bitter Root. The Flowers grow in great Numbers, after the manner of a long *Thyſus*, hanging or dangling upon one ſide of the Stalk, upon ſhort hoary Foot-ſtalks, to each of which there adheres a ſmall pointed Leaf, in the Shape of a Cup or Thimble, of a Scarlet Colour without, except the lower part, which is fleſh-colour'd, by reaſon of a certain Mixture of white, and within of a Scarlet or Purple Colour, the lower part (which is beſet with long Hairs) being of various Colours, by reaſon of white Spots with a little Mixture of black. To the Bottom of the Flower there grow ſoft white or purple *Stamina* or Threads, turning backwards, and ſuſtain

double *Saffron Chives* that ſtand like Drops. The ſlender purpliſh Pointal riſes with a Point from the double folds of an hoary and oblong *Pericarpium*. The Leaves very much reſemble thoſe of *Verbascum*, being oblong, ending in a Point, hoary, jagged round the Edges, above of a deep Green, but below whitith and hoary : Such as are next the Root ſtand upon long Foot-ſtalks, thoſe which grow upon the Stalks thick ſet, and without any Order. The Flower-Cup is generally five-leav'd, and the Edge of the Flower divided into five Segments. It loves a Sandy Soil.

Sometimes it changes by the Colour of the Flower; but this happens rarely; for you will ſcarce find one Plant among a Thouſand that bears a white Flower : It was from this rare Variation that we had the *Digitalis flore magno candido* of J. Bauhinus, the *alba folio aſpero* of C. Bauhinus, the *Major alba* of Parkinson, and the *alba* of Gerarde.

1. Parkinson mentions yet another Species of the white *Digitalis*, which he calls *Digitalis alba*, *altera*, *minor*, whoſe Leaves he owns are like thoſe of the former, but ſomewhat ſhorter and thinner, and of a deeper Green : The Stalk is ſhorter, ſcarce three Foot long; the Flowers leſſer, but agrees in every thing elſe.

2. *Digitalis Major*, *flore carneo* of the ſame Parkinson, differs from the common Purple one, by its Leaves being a little ſmaller.

3. *Digitalis Media*, *flore luteo rubente* of the ſame Author; It is of a middle Size, betwixt the great and the little ones, with Leaves ſomewhat reſembling thoſe of the leſſer yellow Species, and leſs than the preceeding, with long narrow Flowers, about the bigneſs of the Flowers of the leſſer white Sort, of a yellow Colour, mix'd as it were with Red, which Colour we call Tawny, and is to be ſeen in ſome Oranges. After it has ſeeded, it dries up from the very Root, generally in the Second Year after it has been ſown.

I was unwilling to omit theſe Variations, tho' they ſeem rather to be owing to ſome Accident, than that they really differ in Species from the common Purple-flower'd Fox-Glove, that the Reader might follow his own Judgment, after conſidering their ſeveral diſtinguiſhing Marks.





2. *Digitalis vulgaris, flore carneo.* H. Edinb. *Digitalis flore incarnato.* C. B. Pin. 243. Common Fox-Glove with a flesh-colour'd Flower.

3. *Digitalis flore magno, candido.* J. B. 2. 803. Fox-Glove, with a large white Flower. *Digitalis alba, folio aspero.* C. B. Pin. 244. Dod. Pempt. 169.

4. *Digitalis Hispanica, purpurea, minor.* Small purple Spanish Fox-Glove. *Digitalis Verbasco folio, purpurea, minor, perennis, Hispanica.* Bar. Icon. *Digitalis angusto Verbasco folio, montana.* Boc. Mus. Part 2. 108. *Digitalis Verbasco folio.* Ejusd. Tab. 85. In the whole Structure and every Part, it is like the *Digitalis folio virefcente* of C. Bauhinus, only excepting that it differs in the Shape of its Leaves, which do somewhat resemble the Leaves of Mullein. The Flower is for the most part of a reddish Colour, and sometimes of a paleish white. It is a little more than a Foot high. It is found in cold Places, upon the Mountains of Tuscany and Savoy.

5. *Digitalis Orientalis, Sesamum dicta.* Oriental Fox-Glove, called Sesame. *Sesamum.* J. B. 2. 896. Dod. Pempt. 531. Jugeoline.

6. *Digitalis Orientalis, altera, semine obscuro.* Another Oriental Fox-Glove, with dark dusky Seed. *Sesamum alterum, folio trifido, Orientale, semine obscuro.* Pluck. Phytog. Tab. 109. Fig. 4.

7. *Digitalis Orientalis, trifida, flore niveo.* *Sesamum Orientale trifidum, flore niveo.* Hort. Compt.

8. *Digitalis minima, Gratiola dicta.* Mor. Hist. Oxon. Part 2. 479. The smallest Fox-Glove, called Hedge-Hyssop. *Gratiola Centauroides.* C. B. Pin. 279. *Gratiola.* J. B. 3. 434. Dod. Pempt. 362.

Cordus took the Flower of the *Gratiola* to consist of four Leaves, tho' it is but one single Leaf. We must bring to this Species the *Gratia Dei Cesalpin.* and not the *Gratia Dei altera Cesalp.* as may be seen in the *Pinax*. This Plant chymically analysed, gives no Volatile Salt, but Abundance of acid Oil and Earth. Pena and Lobel affirm, that this Plant purges vehemently both upwards and downwards; for which Reason it is prescribed to hydropical and catexical People, and to such as have a *Tertian* or quartan Ague, or to such as are subject to the Gout, or the *Sciatica*; Camerarius says, That we ought to mix the Extract of this Plant with

the Powder of Cinnamon, for the Dropsie; and that we ought to add the Juice of Calamint to it, for intermitting Fevers. They give *Gratiola* in Substance to the Quantity of a Dram; and as much in Infusion in white Wine. They infuse half a Handful of the Leaves, and two Ounces of Manna in a Gallon of Water, and only make it boil up; they strain the Infusion thro' a Linnen Cloth, and drink it warm.

9. *Digitalis Linifolia, Lusitanica, palustris.* *Gratiola alia Lusitanica.* V. Lusitan.

10. *Digitalis lutea, magno flore.* C. B. Pin. 244. *Digitalis lutea, flore majore, folio latiore.* J. B. 2. 813. *Digitalis lutea.* Tabern. Icon. 567. This is the *Digitalis lutea, amplo flore*, or Fox-Glove with large yellow Flowers of Parkinson.

This Species has a less Root than the Purple Kind, but not unlike it. The Stalks are angular, hoary; The Leaves narrower, long, on the under Part shrivell'd and wrinkled with rough Nerves, on the upper Part perfectly smooth, of a deep Green, notched round the Edges, of a sharp bitterish Taste. The Flowers are like those of the *Digitalis purpurea*, hairy both without and within, but of a bright Yellow without, and on the Inside of a deep Saffron and a faint Yellow.

It is found in hilly Places about Geneva, and in Germany, and flowers in June and July.

11. *Digitalis major lutea vel pallida, parvo flore.* C. B. Pin. 244. Yellow or pale Fox-Glove, with a small Flower. *Digitalis, flore minore, subluteo, angustiore folio.* J. B. 2. 814. This is the *minor lutea sive pallida* of Parkinson in his Paradise.

It is two Yards high or above, with a Stalk an Inch thick, branched, smooth, rising from a Root an Inch thick. To the Stalk grow in order Leaves about a Span long; or rather shorter, two or three Inches broad, pointed, notched on the Sides, on the upper Part smooth, of a deep green below, herby and hairy. The Flowers in a long Range representing a *Thyrus*, tho' they rise diversly, yet all of them look the same way, being one half less than the Flowers of the purple Fox-Glove, of a yellow Colour, languishing into an herby Colour, and that as well without as within; with a Lip hairy within; a sharp pointed Leaf perfectly smooth, stands

at the Foot-stalk of each of them. The Seed is in Cells with two Openings after the manner of the rest. The Root is fibrous, perennial, and not easily hurt by any Injuries of the Weather; nay, not by the most severe Frost.

It grows in great abundance in the Mountains about *Geneva*, and likewise in *Italy* about *Salernum* and *Naples*. It flowers in the Months of *June* and *July*.

C. *Baubinus* describes yet another *Digitalis angustifolia luteo parvo flore*, in his *Prodromus*; which whether it differs from the former in any other respect, but in the smallness of its Parts, the Reader is left to judge; 'tis the same which now follows in order.

12. *Digitalis minor, luteo, parvo flore*. The lesser Fox-Glove, with a small yellow Flower. C. B. Pin. 244. *Digitalis angustifolia, luteo, parvo flore*. C. B. Prodr. 115.

13. *Digitalis angustifolia, lutea*. C. B. Pin. 244. The narrow-leav'd yellow Fox-Glove. *Digitalis lutea, parva*. Lob. Icon. 573.

14. *Digitalis latifolia, flore ferrugineo*. H. R. Par. Broad-leav'd Fox-Glove, with a Murrey-colour'd Flower. *Digitalis maxima, ferruginea*. Park. Par. 381.

The Stalk is three or four Yards high, tolerably thick, firm, taper, smooth, whose upper-most Knap is cut into several Wings. The Leaves are very like those of the *Digitalis sublutea, angustifolia*, long, narrow, pointed, of a deep Green [of a whitish Green Park.] full of Nerves, hairy on the farther side, and grow in order on the Stalk, being gently notched or snipped round the Edges. The Flowers are disposed in a long Series, somewhat like a *Thyrus*, but shorter and stiffer than those of the *Digitalis purpurea*, without wholly hairy, ferrugineous, or of the Colour of rusty Iron, and within of the same Colour but deeper, and variegated with Stripes, a longer hairy Lip hanging down, gaping wide in the middle, with yellow Chives lurking under the Edge of the upper Leaf. The recurvated basis of the Flower rests upon a Flower-Cup in shape of a Star, consisting of five Rays. The Knobs or Tufts, which are smaller than in the *purpurea vulgaris*, are filled with small dusky Seed.

15. *Digitalis latifolia, flore ferrugineo, minore*. H. R. Par. Broad-leav'd Fox-Glove, with a smaller, rusty Iron-coloured Flower.

16. *Digitalis media, flore luteo rubente*. Park. Par. 381.

17. *Digitalis angustifolia, flore ferrugineo*. C. B. Pin. 244. Narrow-leav'd Fox-Glove, with a Flower of a rusty Iron-colour. *Digitalis ferruginea, folio angustiore*. J. B. 2. 813. *Digitalis ferruginea*. Lob. Icon. 573.

18. *Digitalis Hispanica, angustifolia, flore flavescente*. Narrow-leav'd Spanish Fox-Glove, with a yellowish Flower.

19. *Digitalis Hispanica, angustifolia, flore nigricante*. Narrow-leav'd Spanish Fox-Glove, with a blackish Flower. *Digitalis angustifolia, Hispanica*. Bocc. Mus. Part 2. 136. Tab. 98.

20. *Digitalis Orientalis, Tragopogi folio, flore albedo*. Oriental Fox-Glove, with the Leaf of *Tragopogus*, and a whitish Flower.

It has received its Name from *Digitale* a Finger-Stall or Thymble, because of the natural Resemblance the Flowers bear to this in shape and size. I don't find that it was known to any of the Antient Greek or Latin Writers: However some have taken it to be a *Verbascum*; and *Casalpinus* calls it *Virga aurea major flore purpureo*, as also *Alisma, Damasonium*, and *Fistula Pastoris*. *Tragus* calls it *Campanula Sylvestris flore purpureo*, and *flore luteo*. *Columbus* takes it to be the *Ephemerum* of *Dioscorides*; and *Dalechampius* upon *Pliny* takes it to be *Calathiana viola Plinii*.

This Plant is an Emetick. The Country People of *Somersetshire* make use of the Decoction of the first Species in Fevers, to purge and vomit, which sometimes rises to a Superpurgation. The *Italians* have a common Proverb concerning this Herb, called by them *Aralda*, which is, *Aralda tutte piaghe salda*, i. e. Fox-Glove salve all Sores. *Parkinson* affirms, that it is effectual against the Falling-Sickness, if two Handfuls of it be boiled in Ale with four Ounces of *Polypody* of the Oak, and the Decoction drank by the Patient. For they who had labour'd under that Disease twenty six Years, so that they fell down once in a Week, or twice or thrice every Month, were perfectly restored by the use of this Decoction, and did not fall into a Fit for the Space of fourteen or fifteen Months after, that is till the time of writing this by the Author, which, he says, may be reckoned as an absolute Cure, and that it was to be presumed, that after so long an Intermission the Distemper would never more return. But this Physick

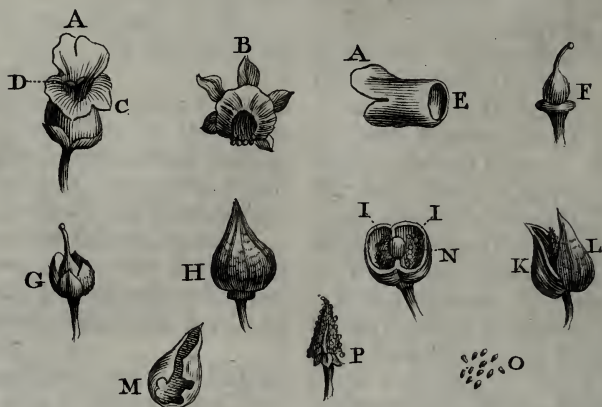
THE SEVEN PLANETS



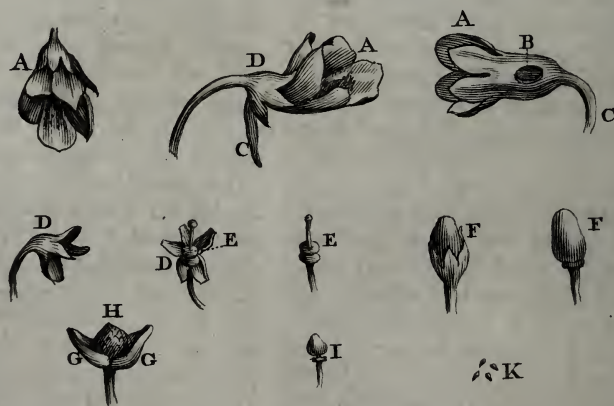
THE SEVEN PLANETS



Scrophularia. Figwort.



Pinguicula. Butternwort.



sick is only proper for robust and strong Constitutions, since it purges very violently, and creates prodigious Vomiting.

It has lately been found by Experience, says *Parkinson*, that it is available for the *King's-Evil*, the Herb being bruised and applied to the Part, or the Juice made up into an Ointment and used thereon.

I know several, says *Bates*, who confide very much in the Flowers of *Fox-Glove* in case of the *King's-Evil*, which some put into *May-butter* in as great Numbers as they can, and then put it out to the Sun the whole Summer. Others mix it with *Hog's Grease*, and dig a Hole under Ground, into which they put it for the Space of forty Days; in both which Cases they preserve the Flowers with the Ointment, spread them upon Linnen Cloth, and apply them to the *Scrophulous Tumours*; and they tell you that they have found by Experience, that these Flowers thus prepared were of sufficient Virtue for ripening and dissolving of Tumours, and for cleansing and filling up of Ulcers. They purge with *Diacarthamum* every Fifth or Sixth Day, and in the mean while they give the Decoction of the *Herba Robertiana*, without Intermision. That Part of the Ulcer which is red, must be anointed with the thinnest and smoothest Part of the Ointment, but the thicker Part of the Ointment must be spread upon Linnen Cloth, which must never be changed. There are some who take the tender Crops and Buds of the Plant when they begin first to Sprout, and boil the squeezed Juice in Butter so long till the Juice is consumed, and this they repeat, adding new Juice twice or thrice, and boiling it, till it is as often wasted.

1. A sufficient Quantity of this Ointment must be prepared at that time of the Year, when the Flowers may be had in most Plenty; because there is sometimes required a whole Year or more to perfect the Cure.

2. Tho' the Ulcers do at first become larger, don't be afraid, since after the Ointment has wasted and dried up all the Humours, it will at last cure them, and draw a Skin over them.

3. This Ointment is chiefly useful in *Evils* that are moist, and void Matter; but is of little Effect in dry ones; in which Cases re-

course must be had to *Basilicon* and *Precipitate*.

These Particulars I had from my very good Friend, as well as a Skilful Botanist and Physician, Dr. E. Hulse. Ray.

TABLE LXXIV.

GENUS III.

Scrophularia, Fig-wort.

Fig-wort is a Plant with an anomalous Flower of one single Leaf AB, gaping at both Sides, and generally globular, cut as it were into two Lips, under the upper one of which are two small Leaves D: The Pointal F, rises out of the Cup G, and is fixed like a Nail in the hinder Part of the Flower E, which afterwards turns to a Fruit or Shell H, with a roundish pointed End, gaping into two Divisions KLM, parted into two Cells II, by an intermediate Septum or Partition N, and full of Seeds, generally small O, adhering to the Placenta P.

The Species of this Plant are,

1. *Scrophularia nodosa*, fœtida. C. B. Pin. 235. Knotted, unfavoury *Fig-wort*. *Scrophularia vulgaris* & major. J. B. 3. 421. *Scrophularia*. Dod. Pempt. 50.

This is the *Scrophularia major* of *Gerarde*, and the *Scrophularia vulgaris* & major of *Park*.

The whole Plant is of a fetid or stinking Smell, like the Elder. The Root grows obliquely, and is white, pretty thick, and full of unequal Knobs or Tumours, the Stalk is firm, erect, quadrangular, hollow, and purplish; it grows a Yard high, and is divided into Wings. The Leaves are like those of the *Galeopsis*, but larger, pointed and notched, growing upon the Stalk opposite to one another (which however does not hold always) of a dark Green. The Flowers stand upon hairy Foot-stalks in Flower-Cups, consisting of five Leaves, with a gaping Mouth like that of the least Species of *Snap-dragon*, the uppermost Jagg divided in the middle, of a dark purple within, and somewhat greenish without, the two lateral ones, with the lowermost,

ermost, turning back on the outside, and are of a pale green Colour, with a green Pointal standing up out of the Gap, and twisted *Stamina* or Threads, sunk deep with *Chives* like those of the winged wild Pease. [Sometimes the *Stamina* stand upright, and their pale *Chives* appear out of the *Hiatus* or Opening.] The Seed Vessel is bivalve, roundish, and pointed at Top.

Parkinson describes another of this Species by the Name of *Scrophularia major altera, elegans*. It resembles the former in Leaves, but having more sometimes standing at a Joint, especially the lowermost: The Flowers are not gaping, but made of four reddish Leaves; which usually stand at the Joints with the Leaves: The Seed Vessels are not pointed.

2. *Scrophularia major, hirsuta*. H. R. Par. A greater hairy Fig-wort. *Scrophularia foliis & caule hirsutis*. Mor. H. R. Blef.

3. *Scrophularia major, caulibus, foliis & floribus viridibus* Raii. Synopf. 161. Greater Fig-wort, with green Stalks, Leaves and Flowers.

4. *Scrophularia major, aquatica*. C. B. Pin. 235. Water Fig-wort. *Scrophularia maxima, radice fibrosa*. J. B. 3. 421. *Betonica aquatilis*. Dod. Pempt. 50.

The thick Root of this Plant has many, long, large and white Fibres. The Stalks are a Yard long, quadrangular, about the Thickness of one's little Finger, larger than those of the *Scrophularia vulgaris*, smooth, and full of Branches. The Leaves grow over-against one another in Couples at a pretty good distance, and stand upon Foot-stalks an Inch and a half long, having generally two Lappets at the Foot-stalk, three or four Fingers long, and two broad, notched round the Edges, with a blunter Point than the *Scrophularia vulgaris*, and in their Shape resembling the Leaves of *Betony*, but two or three times larger. The Flowers come forth upon the Tops of the Stalks and Branches, many growing upon the same common Foot-stalk or Shoot, and out of the Wings of the Leaves, being small, consisting of a single Leaf, plump, of a dark purple Colour, with two broad and blunt Segments sticking out at the Top like little Ears; and little yellow *Chives* presenting themselves at the very Opening of the Flower. After which, follow roundish, pointed Seed Vessels, composed of two Cells, containing little dark Seeds within.

5. *Scrophularia palustris, non fetida seu aquatica minor*. C. B. Pin. 235. Lake or Pool Fig-wort, not stinking, or the lesser Water Fig-wort. *Scrophularia fæmina*. Cam. Epit. 867.

6. *Scrophularia flore luteo*. C. B. Pin. 236. Prodr. 112. Fig-wort with a yellowish Flower. *Scrophularia lutea, magna, amplis foliis*. J. B. 3. 242. This is the *Lamium Pannonicum, alterum sive exolicum* of *Cusius*, or yellow flowered Fig-wort.

From the black fibrous Root of this Plant which has no Knobs, there Spring up many Leaves, (before there appears a Stalk) which lye with their convex Side upon the Ground, and are large, round, hairy, six or seven Inches long, and as broad, and are soft by reason of the short Down upon them, exactly like Nettle Leaves, unless that they are generally larger, being slightly bedewed, as it were, with a certain fat and clammy Dew, deeply notched round the Edges, with very long Foot-stalks, three or four Inches long: The Second Year it produces a Stalk [several Stalks C. B.] about a Yard long, square, or hexagonal, thick, hollow, a little hairy, upright, divided by Joints, at which there generally grow two opposite Leaves, decreasing gradually from the Bottom to the Top of the Stalks, and standing upon Foot-stalks that grow insensibly shorter. Out of almost every Wing of a Leaf, from the Bottom to the Top, there springs a Foot-stalk about three or four Inches long, according to *C. Bauhinus* smooth, but according to *Clusius* and *Columna* rough. Round the Top of this appear two little small Leaves, above which, on the very Top of the Foot-stalk, rest several Flowers, yellowish, about the bigness of a little Pease, hollow, gaping, having their Mouths a little divided into five Lappets, and with yellow *Chives* within, and a slender Pointal emerging with *Stamina*, very like the Flowers of the *Arbut-Tree*; having a yellowish green Basis, composed of five little Leaves: To which succeed oblong Husks, ending in a Point, like Fig-wort (with little Knobs like those of *Hypericon* L. B.) in which are contained like Seeds, slender and black. On the Top of those Knobs stands a Thread like a Vine Tendrel.

This is the same Plant that *Parkinson* calls *Galeopsis luteo-pallida*.

7. *Scrophularia folio Urtica*. C. B. Pin. 236. Nettle-leav'd Fig-wort. *Scrophularia flore rubro Camerarii*. J. B. 3. 422. *Scrophularia peregrina*. Cam. Hort. Tab. 43.

From the same fibrous Root without Knobs, it sends up several Stalks, but the middle one much larger than the rest, as thick as one's Finger, firm, branched from the Bottom, with double little Twigs over-against one another, springing out of the Wings of the Leaves, half a Yard high or more, square, hollow, covered with a very short Down, scarce discernible. The Leaves much resemble the Leaves of Nettles; and are of a dark green Colour, smooth and glittering, the lower ones hanging on long Foot-stalks upon the Stalk, and the upper ones regularly and gradually shorter. The Flowers stand upon Shoots that rise out of the Wings of the Leaves, being six, seven, or more in Number, adhering to slender Foot-stalks, and more open than those of the *Scrophularia vulgaris*; nor are they of so dull a Purple, but a great deal redder. To these succeed roundish Husks, parted into two, containing within dark brown Seeds.

This Plant has the unpleasant Smell of the *Scrophularia vulgaris*.

It grows in great abundance about Pisa, even upon the very Walls of the City, and in other Parts of Italy. This is certainly the *Scrophularia Greca* 2 of *Clusius*, because he says, it has the Leaves of Nettles.

Parkinson describes another foreign Fig-wort, which he calls *Peregrina altera*, about two Foot high; with fair green Leaves, as it were winged, and dented about the Edges, with yellowish Flowers, and pale Stamina or Threads in the middle. The Seed small in round Husks, forked at the End.

8. *Scrophularia Melisse folio*. Balm-leav'd Fig-wort. *Scrophularia Scorodonia folio*. Moris. Hist. Oxon. Part. 2. 482. This is the *Scrophularia Lusitanica* of the Hort. Lugd.

It rises two Foot high, with a square Stalk, consisting of many Joints, and branched out into a great many Divisions. At each Joint there are two sharp-pointed, jagged, rugged Leaves placed over-against one another, like those of wild Sage, which they resemble so very near, that before it bears Flowers and Seed, it might be taken for *Scorodonia* or Wood-Sage. It bears a Flower resting upon a Foot-stalk an Inch long, entire at Bottom, but

parted into five at the Edge, with four Lappets of a rusty Iron-colour, and green on the lower part. From the Bottom of the Flower come out four very short, greenish Threads, together with a Pointal and Chives of the same Colour. When these fall off, there succeed them pyramidal, sharp-pointed Seed-vessels, which being yet green, do closely adhere to one another; but when dry they open, and each Husk contains small brown Seeds, after the manner of the others of the same Kind.

9. *Scrophularia Betonica folio*. Betony-leav'd Fig-wort. *Scrophularia Scorodonia folio*. V. Lufit.

This Species is excellent for Wounds. *Grisleii virid*. Lufit.

10. *Scrophularia peregrina, frutescens, foliis Tencrui crassiusculis*. Breyn. Cent. 1. Foreign Shrub-Fig-wort, with thickish Germaner Leaves.

11. *Scrophularia Hispanica, sambuci folio glabro*. Smooth Elder-leav'd Spanish Fig-wort. *Scrophularia sambuci folio*. Park. Theat. 611. *Sideritis sambuci folio*. P. Alp. Exot. 203.

This Fig-wort rises up with diverse square hollow Stalks, two or three Cubits high, with several winged Leaves, issuing from the Joints, consisting of many, set one against another, upon a middle Rib near resembling an Elder Leaf, and Smelling strongly of it.

The branched Stalks bear the like Leaves, and at the Joints with them, and at the Tops stand many hollow Flowers, hanging down their Heads round about the Stalks, of a brownish red or purple Colour; after which, come small round black Seed-vessels, pointed at the Ends, with the like small Seeds in them, as in the others. The Root is somewhat long, with divers Fibres at it. Park.

It was sent from Spain. *Parkinson* brought it up from the Seed. It lives only two Years, and when the Seeds are thorough ripe, it withers. Dr. More, to whom *Parkinson* sent the Seeds of it with other rare ones, when he liv'd at Padua, made a Present of it to *Alpinus*. It loves shady moist Places.

12. *Scrophularia maxima, Lusitanica sambuci folio lanuginoso*. The great Portuguese Fig-wort, with a downy Elder Leaf.

13. *Scrophularia subrotundo, crasso & nigricante folio, flore luteo pallido, capsula turgida*. Bocc. Mus. Part. 2. 65. Fig-wort with a roundish, thick and blackish Leaf, a pale yellow Flower, and a swollen Husk. *Scrophularia capsula turgida*. Ejusd. Tab. 60

14. *Scro-*

14. *Scrophularia foliis Filicis modo laciniatis, vel Ruta canina, latifolia.* C. B. Pin. 236. Fig-wort with Leaves notched like those of Fern, or broad-leav'd Dog-Rue. *Scrophularia Cretica* L. Clus. Hist. ccix.

The Leaves of this first spread upon the Ground, not much unlike the first Leaves of the *Scabious*. Then rises up a Stalk a Cubit and a half high, square, hollow, green, with Purple Corners, and sometimes all over Purple on that Part which is exposed to the Sun. The lower Part of it is surrounded by much larger Leaves, divided into many Lappets or Pieces, growing over-against one another; then the other Part of the Stalk is encompassed by other Leaves, which are winged, and very like the Leaves of Fern, or the Clary, called *Alectorolophus*, having many Pieces, which are again cut into many lesser ones jagged round the Edges. From the Middle of the Stalk to the Top, there grow likewise square little Branches out of the Bosom of the Leaves, adorned with lesser Leaves, and they again divided into other little Branches, sustaining Flowers hollow like Bottles, not much unlike the Flowers of the *Scrophularia vulgaris*, of a greenish yellow, consisting of six Leaves, the two undermost of which are very small, and turning a little downwards, but such as are at the Sides, rise a little higher, and are of a faint purplish Colour on the upper part; but the two uppermost are larger than the rest, turning somewhat outwards, and are of a dark purple Colour, having a few yellow Threads rising out of their Navel, or Middle. The Root is about an Inch thick, divided into many Fibres, and of a whitish Colour.

15. *Scrophularia Saxatilis, lucida, Laserpitii Massiliensis foliis.* Bocc. Mus. Part. 2. 166. Shining Rock-Fig-wort, with the Leaves of Massilian Laserwort. *Scrophularia Laserpitii foliis.* Ejusd. Tab. 117.

This is a Rock-Plant, producing Leaves more shining, plump, branched, and more winged than the *Ruta Canina*, divided into Lobes after the manner of Massilian Laserwort. It rises a Foot high. It has a perennial Root, and bears a Flower of a deep purple Colour. It grows on the very Walls of Otranto, in the Kingdom of Naples.

16. *Scrophularia Ruta Canina dicta, vulgaris.* C. B. Pin. 236. Great Fig-wort, without knob-

bed Roots. *Scrophularia tertia Dodoneo tenuifolia, Ruta Canina quibusdam vocata.* J. B. 3. 423. *Ruta Canina.* Clus. Hist. ccix. This is the *Scrophularia altera, Ruta Canina dicta* of Parkinson.

This Species of Fig-wort rises up with many weak and slender Stalks, not above two Foot high, whereon grow narrow, long, and somewhat thick dark-green Leaves, cut in on the Edges on both sides into divers parts, making them resemble the Leaves of wild Field Poppy, Smelling somewhat strong like Rue, or Poppy, and set without Order, sometimes but one or two, and sometimes more standing at a Joint. The Flowers are many, but small, of a dark or sad purple Colour, like those of the *Scrophularia major vulgaris*, or of the Toad-flax, standing many together, upon several small Branches at the Tops of the Stalks, which smell as strong almost as the Leaves. After which, come small Heads like those of the *major vulgaris*, with Seeds not much unlike. The Root has no Knobs, but is a long, downright big Root, with many small Fibres growing to it.

17. *Scrophularia minor, Ruta Canina dicta.* Moris. Hist. Oxon. Part. 2. 483.

This Plant is about a Foot high, lesser by one half than the former: The Leaves are much finer cut. The Flowers are whole and entire at Bottom, but divided at the Edges into five Snips, having very short Threads and Pointal, rising out of their Bottom. When they decay, they are succeeded by extremely small Seed-vessels that are forked, which, while green, are closely and straitly united, being of a Pyramidal Figure, with a very sharp Point, but when dry, they open of their own accord, and shed Seeds that are much less than any of the other.

18. *Scrophularia Lusitanica, frutescens, verbene folio.*

It produces a square, channell'd Stalk, about a Yard high: The Leaves are joined together at great distances, thick, and deeply jagged round the Edges, perfectly resembling the Leaves of *Vervain*, both in length, breadth, and in the whole structure. The Flowers stand upon the Tops of the little Branches, being variegated with Scarlet and White; their Basis is a light Red; their lateral Leaves are auriculated or lobed, and all over white at the Extremity.

19. *Scrophularia Cretica, aquatica, major, villosa*. The greater hairy, Water Fig-wort of Candy.

20. *Scrophularia Cretica, frutescens, folio vario, crassiori*. Frutescent Candy Fig-wort, with a various thickish Leaf.

21. *Scrophularia glauco folio, in amplas laciniis diviso*. Fig-wort with a grey Leaf, divided into large Jaggs.

22. *Scrophularia Græca frutescens & perennis, Urtica folio*. Frutescent and Perennial Fig-wort, with a Nettle Leaf.

23. *Scrophularia Ephesia, Lunaria folio, flore rubro*. Ephesian Fig-wort, with a Moon-wort Leaf, and a red Flower.

24. *Scrophularia Orientalis, Glancii & Matriariæ folio*. Oriental Fig-wort, with a Glancium and Mother-wort-Leaf.

25. *Scrophularia Orientalis, minor, melissæ folio*. The smaller Oriental Fig-wort, with a Baulm Leaf.

26. *Scrophularia Orientalis, foliis Cannabinis*. Oriental Fig-wort, with hempen Leaves.

27. *Scrophularia Orientalis, minima, folio subrotundo*. The smallest Oriental Fig-wort, with a roundish Leaf.

28. *Scrophularia Orientalis, folio amplissimo, caule alato*. Oriental Fig-wort, with a very large Leaf, and a winged Stalk.

29. *Scrophularia Orientalis, Tiliæ folio*. Oriental Fig-wort, with a Lime-Tree Leaf.

30. *Scrophularia Orientalis, Chrysanthemi folio, flore minimo, atro-purpureo*. Oriental Fig-wort, with a Star-wort Leaf, and a very small dark purple Flower.

31. *Scrophularia Orientalis, Chrysanthemi folio, flore minimo, variegato*. Oriental Fig-wort, with a Star-wort Leaf, and a very small variegated Flower.

Scrophularia has received its Name from its knobby Root, or from the Scrophulous Tumours which it is thought to cure. Now these Scrophula or hard Swellings, are the hard Tumours of the Glands in the Neck, Arms-pits, or Groin. Some will have them to derive their Name from their being familiar to Hogs, or that they are prolific, and have a numerous Off-spring like the Scrofa, which are Swine kept on purpose for Breed. This Herb has been likewise called *Millemorbia*, *Ficaria*, *Ferraria* & *Castrangula*, as well from the Form of the Roots, as from the many Uses the former Ages put it to more than

ours, and found it available. But the most common and generally received Opinion is, That it had its Name from its Use, because its Root cures the King's-Evil and the Piles. It is likewise made use of in cancerous and the like creeping Ulcers, and in a malignant Scab: If any one is tormented with the dry Piles, he will be presently relieved, if he takes but a little either of the Root or Leaves of Fig-wort in his Viſuals or Drink; and it is indifferent, whether he take the dry or green Plant in Substance, or in Decoction.

The Powder of the Root dried put upon the Piles, dries them: The same drank to the Quantity of a Dram, expells Worms. Water Distill'd from the Roots, takes away the Redness of the Face.

There is a most excellent Ointment made of this Plant for all Kind of Itch or Scab; by which (says *Tragus*) I have seen Itches cured that were very like the Leprosie. It is made up in the following manner. Take the Herb with its Root in the Month of May; let it be well cleans'd and wash'd, and then bruised: After you have press'd the Juice out of it, keep it a whole Year in a narrow Bottle well stop'd. And when you would make the Ointment, take an equal Quantity of the Juice, Wax and Oil, and mix them together; then put them over the Coals to boil, and let them continue so long, till the Ointment is of a just Consistency. *Tragus*.

The following Plaister is prescribed by Sir Robert Sibbald, in his *Prodr. Natural. Hist. Scot.* R. *Axung. Porcin. ℞j, solvatur moderato ignis calore; Tunc R. folior. Scrophular. Cynoglossæ, Lamii flor. alb. Digitalis, an. p. a. quæ in minutas partes conscindantur, & in Axung. coquantur moderato ignis calore, repetendo coctionem ter aut quater, usque dum Unguentum saturati viroris sit. Tunc appendatur in Libra Unguentum, sumendo dimidium ejus, Cera & Resinæ tantundem, Terebinth ℞ij, viridis æris ℞j, dissolvantur simul omnia, tunc per linteum calentur, & fiat massa, super alutamque extendatur, & parti applicetur.*

The Leaves of the great Fig-wort, (Num. 1.) are very bitter and very stinking, even more than those of Elder, and redden blue Paper, but very little: the Root reddens it more; which makes one conjecture, that the *Sal Ammoniac*, which is in the natural Salt of the Earth

Earth prevails in this Plant, where it is united with a great Quantity of fetid Oil. By a Chymical *Analysis*, we draw from this Plant a great deal of volatile concrete Salt, and abundance of Oil: and therefore it is no wonder that this Plant is so resolving, so emollient and so sweetening: These are the essential Qualities of Remedies proper to discuss the most obstinate Tumours, accompanied with an Inflammation, and those also which we call cold: The fetid Oil softens the Fibres, diminishes their Tension, and makes them limber; while the *Sal Armoniac* attenuates, divides, and evaporates the Matter which possesses the void Interstices of the Flesh. Most of the Plants that smell like Elder, or like the *Stramonium*, have very near the same Virtues, with relation to Inflammations and Tumours; and there are none more proper for Wounds in the tendinous Parts.

The Juice of this Plant is made use of to cleanse the most putrid Ulcers, nay even those that are carcinomatous: To resolve scrofulous Tumours, to abate the Inflammation of the *Hemoroids*, we apply an Ointment made of the Root of this Plant. This Ointment is excellent for the *Gout*, the *Hemorrhoids*, and the *Tetter* or *Ring-worm*: But while the Patient makes use of this Ointment, he ought likewise to take in the Morning fasting, a Dram of the Powder of the Root mixed with some proper Conserve, or at least to drink a Glass of Wine, in which the Root has been infused all Night. *Tournefort. Hist. des Plant. des envir. de Paris.*

The *Scrophularia aquatica, major* (Num. 4.) is stinking, somewhat bitter, deterfive, and does not redden blue Paper; which gives ground to conjecture, that it contains a *Sal Armoniac*, mixed with fetid Oil and Earth; and therefore it is not strange, that it is deterfive and vulnerary. It has the same Virtues with the former. *Id. ibid.*

TABLE LXXIV.

GENUS IV.

Pinguicula, Butter-wort.

Butter-wort is a Plant with an *anomalous* Flower of one single Leaf A, open on both sides, but resembling in Shape that of the Violet, divided as it were into two Lips D A, and ending in a Tail or Spur C. Out of the Flower-Cup D, rises the Pointal E, fastened like a Nail in the hinder part of the Flower B, which afterwards turns to a Fruit or Shell E F, gaping doubly G G, fraught with Seeds H, for the most part small K, adhering to the Placenta I.

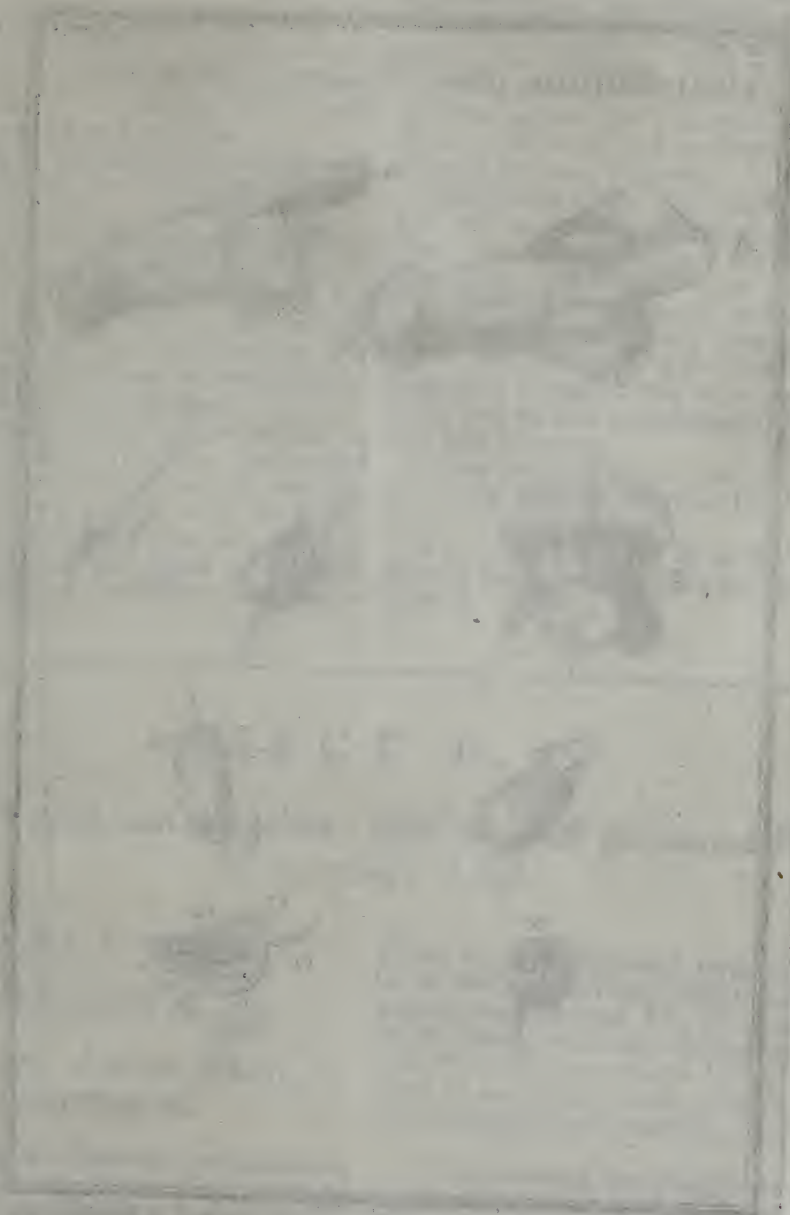
The Species of *Butter-wort* are,

1. *Pinguicula Gesneri*. J. B. 3. 546. *Sanicula montana*, flore calcarati donato. C. B. Pin. 243. *Pinguicula*. Clus. Hist. 310. This is the *Pinguicula*, *sive Sanicula Eboracensis* of Gerarde and Parkinson. *Butter-wort*, or *Yorkshire Sanicle*.

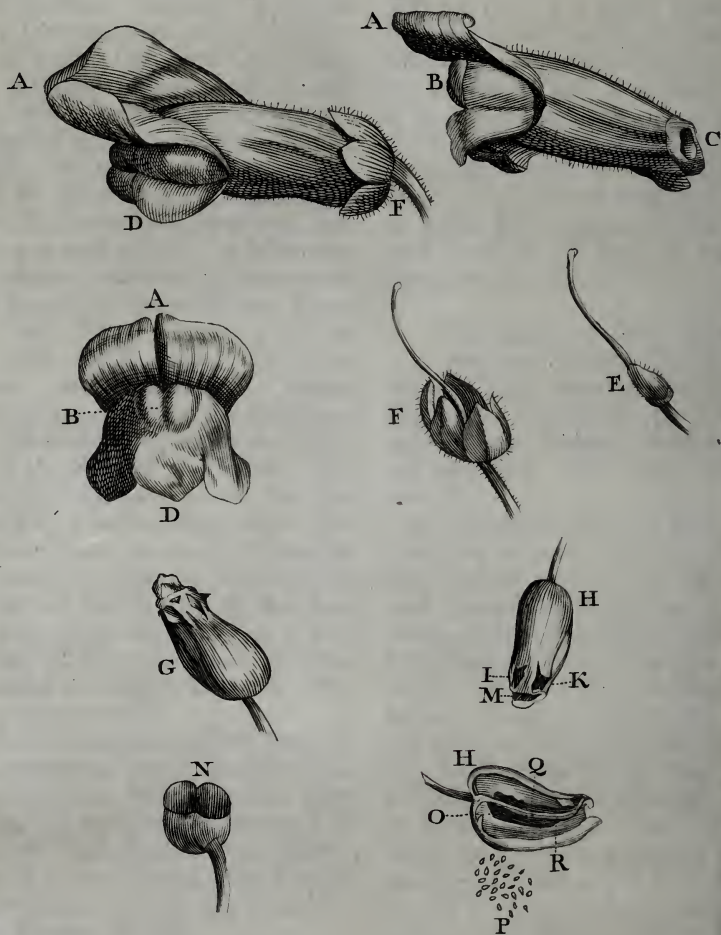
It has divers fat and long Leaves lying upon the Ground about the Root, broad at the Bottom, and pointed at the End, of a pale green Colour on the upper side, and white underneath, folded together at their first rising, and then somewhat whitish; from among which arise two or three slender naked Stalks, about an Hand breadth high, bearing only one Flower at the Top of each, set in a small green Husk, made somewhat like a Violet Flower, or those of the Larks heels or Spurs, having a small Tail or Spur behind, in some of a purple, in others of a more blue Colour, and in some white. After the Flowers are past, come in their Places small round Heads, wherein is contained small long black Seed. The Root is composed of divers small white Fibres, which die not, but abide with the green Leaves on them all the Winter.

2. *Pinguicula flore albo minore, calcarati brevissimo Raii*. Hist. 752. The lesser white flower'd *Butter-wort*, with a very short Spur.

We find this in moist Places on the Top of the Mountain *Java*.



Antirrhinum . Snap-Dragon or Calves Snout.



3. *Pinguicula flore amplo, purpureo, cum cal-
cari longissimo.* Butterwort, with a large purple
Flower, and a very long Spur. *Raii. Hist.*
572.

We have observed this and the last in the
same Places. It differs both from the preced-
ing, and from our common one, in the deep
purple Colour of its Flower, as well as in its
Largeness, and its very long Spur.

4. *Pinguicula Cornubiensis, flore minore, car-
neo.* The Cornish Butter-wort, with a lesser
flesh colour'd Flower.

The Leaves of this Species are reflected,
and as it were turn'd in, almost pellucid, and
striped with reddish Veins. The Flowers are
much less and paler than in our common
one, and come very near the Carnation.

I observed it in *Cornwal* in watery Places,
about *Kilkhampton* and elsewhere.

The Leaves bruised and applied are said to
cure green Wounds and Bruises. The Country
People that live where it grows, use to anoint
their Hands, when chapt with the Wind,
with the fat and buttery Juice of it, as well
as the Udders of their Cows when swollen
with the Biting of any Poisonous Worm, or

otherwise chapt, hurt, or rift. The poorer
People in *Wales* make a Syrup of it, as of
Roses, and therewith purge themselves and
their Children: They likewise put it in
Broth for the same Purpose, which purges
Flegm more effectually. They also make an
Ointment of the Herb and Butter, which is
excellent against the Obstructions of the
Liver, experienced by some Physicians there
of good Account. *Parkinson.*

Dalechampsius affirms, That the Root baked
and laid on by way of Pultes, will cure
those who are afflicted with the *Sciatica* in
three Days; and that the same beaten and
laid upon the Place pained, will cure any
manner of Pains. But the Root seems to
be too small to be bak'd for that Purpose.
Camerarius witnesses, that it is a vulnerary
Herb, and especially conducing to Children
that have Ruptures.

It dyes the Hair yellow, and the Women
use it like Gum to curl their Hair. *S. Pau-
lus.*

It is called *Pinguicula* from the fat and
clammy Moisture with which the Leaves are
covered.

SECT. IV.

Of Herbs with an anomalous, fistulous, and personated Flower
of one single Leaf.

TABLE LXXV.

GENUS I.

**Antirrhinum, Calves Snout, or
Snapdragon.**

Snapdragon is a Plant with an anomalous,
fistulous Flower of one single Leaf A,
personated B, and divided as it were into two
Lips, the upper of which A, is cut into two
Parts, and the under into three Parts D. Out
of the Flower-Cup F, rises the Pointal E,
fastned like a Nail in the hinder Part of the

Flower C, which afterwards turns to a Fruit
G, or Shell, like a Hog's Skull, (*viz.* H, re-
presents the Forehead, IK, the Circle, and
M, the Mouth or Snout) divided into two
Cells N, by the intermediate *Septum* or Par-
tition O, and full of Seeds, generally small
P, adhering to the *Placenta* QR.

The Species of Snapdragon are,

I. *Antirrhinum vulgare.* *F. B.* 462. *Antir-
rhinum majus, alterum, folio longiore.* C. B. Pin.
211. *Antirrhinum.* *Dod. Pempt.* 182. This
is the *Antirrhinum purpureum* of *Gerarde*, and
the *Antirrhinum majus alterum, folio longiore*
of *Parkinson.* Purple Calves Snout, or
Snapdragon. L 1

It stands upon a ligneous white Root. The Stalks are a Cubit, or a Cubit and a half long, taper, solid, and smooth towards the Root, and rough above with a short Down; The Leaves narrow and long like those of the yellow *Stock-Gilli-flower*, placed after one another in no Order, and bitterish to the Taste. The Flowers are disposed on the Tops of the Stalk like a *Thyrusus*, large, of one single Leaf, of a flesh or white Colour, representing the Gaping of a Lyon, with an upright Leaf split into two, and a Lip split into three Parts; somewhat yellow, and surrounded with a hairy Fringe before it begins to be divided into two Lappets, containing a Pointal and four *Stamina* or Threads with yellow *Chives* on the Tops. The Flower-Cup is short, consisting of five blunt rough Segments. The Foot-stalk is very short and rough, and springs out of the Bosom of a very small, hollow and pointed Leaf. The Tops of the Stalks and the Flower-Cups are clammy to the Touch. To each Flower succeeds a large Seminal-vessel, somewhat resembling a Calves-head, with a point bending in, divided into two Cells; the upper one opening at Top when ripe with one Hole, and the under one with two. The Seed is very small, angular, and dusky, or black.

It grows in the Ditches and by Hedges, about *Montpelier* in great Plenty.

2. *Antirrhinum majus*, alterum, folio longiore, flore ex candido dilute purpurascente. *C. B. Pin.* 211. Another larger *Snapdragon*, with a longer Leaf, and a Flower of a Colour between a pale white and a purple.

3. *Antirrhinum flore albo, oris rubentibus.* *Eyf.* *Snapdragon* with a white Flower, and reddish Edges.

4. *Antirrhinum flore albo, oris rubris.* *Eyf.* *Snapdragon* with a white Flower, and red Edges.

5. *Antirrhinum flore albo, oris luteis.* *Eyf.* *Snapdragon* with a white Flower, and yellowish Edges.

This differs from the first, not only in the Colour of the Flower, but likewise in its shorter, broader and roughish Leaves.

I have observed this Species growing spontaneously about *Messina*, upon Walls; for which Reason *Petrus Castellus*, in his Catalogue of the Plants about *Messina*, calls it

the *Snapdragon* of *Messina*; altho' it grows also in other Places, as in the ragged Rocks, as *Cesalpinus* has rightly observed: For we found it in great abundance upon Rocks, not far from *Pietra Sancta*, a Town in *Tuscany*, when we Travell'd from *Massa* to *Lucca*: not only so, but it likewise grows spontaneously in *Germany*. Ray.

6. *Antirrhinum luteo flore.* *C. B. Pin.* 211. *Snapdragon* with a yellow Flower. *Antirrhinum floribus luteis.* *Lob. Icon.* 45.

7. *Antirrhinum latifolium, pallido, amplo flore.* *Bocc. Mus. Part. 2. 49. Tab. 41.* Broad-leav'd *Snapdragon*, with a full pale Flower.

8. *Antirrhinum angustifolium, majus peregrinum ruberrimo flore.* *H. R. Par.* The greater *Foreign*, narrow-leav'd *Snapdragon*, with a very red Flower.

9. *Antirrhinum Lusitanicum, flore rubro, elegantissimo.* *Par. Bat.* 18. Portuguese *Snapdragon*, with a most beautiful red Flower.

The famous Dr. *Herman*, Professor of Botany at *Leyden*, rais'd this Plant from Seed, which he gather'd at *Lisbon*. The Leaves stand opposite to one another upon the Stalks sometimes distant, and sometimes joined, somewhat shorter than those of the *Antirrhinum majus alterum* of *Bauhinus*. The Flowers are fuller than in the common one, and shine most beautifully with a charming Red. It thrives and continues green the whole Winter, if kept in a Hot-house.

10. *Antirrhinum longifolium, majus, Italicum, flore amplo, niveo, lactescente.* *H. R. Par.* The greater long-leav'd Italian *Snapdragon*, with a large snowy, and milky Flower.

11. *Antirrhinum Hispanicum, villosum, Origani folio.* Spanish hairy *Snapdragon*, with the Leaf of *Origanum*.

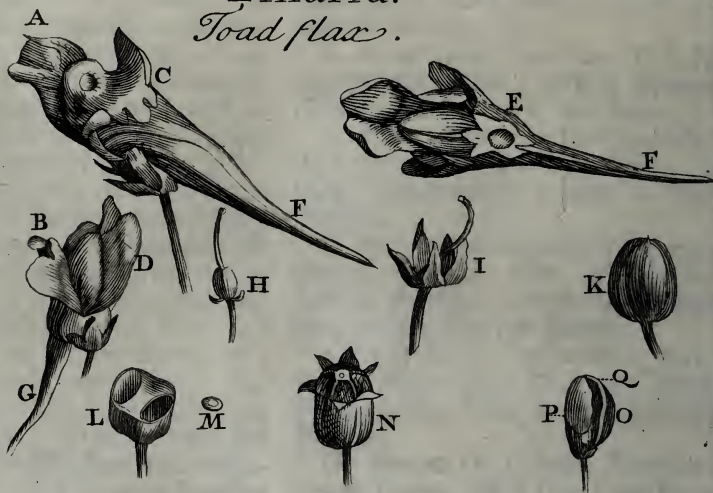
12. *Antirrhinum Hispanicum, villosum, Valerianæ rubræ folio.* Spanish hairy *Snapdragon*, with the Leaf of red *Valerian*.

13. *Antirrhinum Hispanicum, altissimum, angustissimo folio.* The tall Spanish *Snapdragon*, with a very narrow Leaf. *Antirrhinum majus, angustifolium, amplo flore, purpureum, Romanum.* *Barr. Icon.*

14. *Antirrhinum medium, flore albo, patulo.* *V. Lusit.* Middle *Snapdragon*, with a white open Flower. *Antirrhinum minus, amplo, albo flore.* *Barr. Icon.* 15. An-



Linaria.
Toad flax.



Afarina. Bastard Asarum.



15. *Antirrhinum arvense*, minus. C. B. Pin.
 212. *Antirrhinum angustifolium*, Sylvestre. J. B.
 3. 464. *Antirrhinum Sylvestre*, Phytuma. Dod.
 Pempt. 182. The lesser wild Calves-snout,
 or *Snappedragon*. This is the *Antirrhinum*
Sylvestre medium of Parkinson, and the *Antirrhinum*
Sylvestre minus of Gerarde.

This is a very beautiful little Plant, with a slender whitish Root; and little taper, rough Stalks, a Span or a Cubit long, which are adorned with Leaves like those of *Hyssop*, several of them growing together, sometimes somewhat reddish underneath, fat, somewhat biting and bitter. The Flowers, which rise out of the Wings of the Leaves, are of a double Colour, partly white, and partly purplish, like those of the *Antirrhinum majus*, but very much less; they are defended at Bottom by five or seven green rough Leaves, some long and some short. The *Pericarpium* very much resembles the Scull of a young Puppy, and the Holes of the Eyes and Nose formed by a little Horn, which contains the Seed.

It is often to be seen in sandy Ground.

I have observed a Variety of this Plant in *Italy* and *Sicily*, with a flesh-coloured Flower, and a striped Mouth. Ray.

Parkinson had it from *Bael*, who brought it from *Spain*, with a shining Scarlet Flower, a yellow or pale Mouth; as also another which he calls *Antirrhinum alterum flore albo minimum*.

16. *Antirrhinum arvense*, majus, flore albo. H. R. Par. The greater wild *Snappedragon*, with a white Flower.

17. *Antirrhinum majus*, saxatile, angustissimis foliis, flore purpurascente, minori. Barr. Icon. The greater Rock-*Snappedragon*, with very narrow Leaves, and a small purplish Flower.

18. *Antirrhinum Creticum*, angustifolium, flore maximo, purpureo. Parrow-leaved *Snappedragon* of *Crete*, with the largest purple Flower.

Antirrhinum or *Anarrhinum*, is the *'Asplēpion* or *'Aparpion* of *Dioscorides*. Lib. 4. C. 133. so call'd from its Fruit, resembling a *Calves-snout*. It is likewise called *O Leonis* by *Cassianus*, who thinks that this is the same Plant which is meant by *Columella* in these Words, *Et biantis fava leonis ora feri*; because the Flowers of this Plant resemble the

gaping of a Lion; which is indeed true of the Flowers of this Plant, but not of those of *Aquilegia*, which some would have to be meant by *Columella* in this Place.

This Plant is rarely made use of in Physick, unless it be by silly Women against Specters, Inchantments, Witchcraft, &c. and that with an Intent to prevent, as well as to cure; which are both done by hanging it about them, drying it in the Smoke, laying it under them, placing it by them, and bathing with it. *Vid. Caricher in herbario*. This Plant is likewise made use of in the same manner, to obtain the Favour of Princes and great Men.

Matthioli says, That the Leaves, Flowers and Seed are good for the rising of the *Mother*, to be mixed with Rose-water and Honey; and that the Herb makes the *Scorpion* immediately lose his Poison, as soon as he sees it; and that applied to the Forehead, it takes away the Pin and Web in the Eye.

TABLE LXXVI.

GENUS II.

Linaria, Toad-flax.

Toad-flax is a Plant with an anomalous, personated Flower of one single Leaf, ending in a Tail FG behind, and in the forefront divided into two Lips, of which the upper CD, is cut into two or more Parts, and the under AB into three. Out of the Flower-Cup I, rises the Pointal H, fastened like a Nail to the hinder Part of the Flower E, which afterwards turns to a roundish Fruit or Husk K, divided into two Cells, or Apartments L, by an intermediate Partition Q, and full of Seeds; which are sometimes flat and bordered, sometimes corner'd and roundish, adhering to the *Placenta* PO. The Cells use to break different Ways, and the Seeds drop out.

The Species of *Toad-flax* are,

1. *Linaria latissimo folio*, Lusitanica. H. R. Par. Broad-leaved Portuguese *Toad-flax*. *Antirrhinum triornithophorum*. V. Lusit. *Linaria Americana*, maxima, purpureo flore. H. L. Bat.

2. *Linaria latifolia*, Dalmatica, magno flore. C. B. Pin. 212. Broad-leav'd Dalmatian Toad-flax, with a large Flower. *Linaria maxima, foliis Lauri, Dalmatica*. J. B. 3. 458. This is the *Linaria latifolia Dalmatica* of Parkinson.

It has ligneous, round and firm Stalks, above half a Yard high, with many Branches, which are encompassed by Leaves, especially the lower ones, two or three Inches long, one Inch broad, without Foot-stalks, always shorter and narrower on the Tops of the Stalks, ending in a very sharp Point, and growing in no regular Order. It has Flowers very much like those of the *Linaria vulgaris*, but three times, nay four times as large, about the Size of those of the greater Snapdragon, and Red or Golden with a mixture of Yellow; to which succeed the Seed-vessels, as in the others.

3. *Linaria Sicula, latifolia, triphylla*. Boccon. Rarior. Plant. 44. Sicilian broad-leav'd three-leav'd Toad-flax.

4. *Linaria valentina*. Clus. Hist. 351. *Linaria triphylla, minor, lutea*. C. B. Pin. 212. *Linaria trifolia*. J. B. 3. 458.

It produces three or four Stalks from one and the same Root, above a Foot high, thickish, succulent, taper, reddish underneath, greenish above, which are surrounded by Leaves, beautifully disposed at certain Distances from one another, three growing from the same Place, encompassing the Stalk, especially the lower Part; for about the Top they are scattered, and disposed in no Manner of Order. They bear some resemblance to the Leaves of *Telephium*, but are not so thick and succulent, not notched at all about the Edges, broadish at their Rise, ending in a blunt Point, of an almost equal length and breadth, with sinuated Nerves after the manner of *Plantain*, not appearing on the hinder Part, hollow like *Hip-grass*, or *Penny-grass*, retaining the Rain-water that falls on them, and bitter to the Taste. But,

The Flowers are disposed in a long Series, and are like those of the common *Toad-flax*, yellow, with a Lip of a deeper Dye, and downy, gaping, with a sort of a little purplish Horn stretched out beyond the green Leaves, which encompass the Bottom of the Flower. To the Flowers succeed little round Heads, in which is contained Seed, which neither Clu-

sius, nor J. Bauhinus, were so lucky as to see. The Root is all of one Piece, thickish and white.

Clusius observed the *Linaria latifolia, triphylla major* of Caspar Bauhinus, in Flower about *Valentia*, in Meadows and shady Places, in the Month of *March*.

5. *Linaria triphylla, cerulea*. C. B. Pin. 212. The three-leav'd blue Toad-flax. *Linaria cerulea, Apula*. Col. Part. 1. 78.

It is sustained by a small white Root; from whence rise several tender Stalks about a Foot high, [sometimes it is found with one single Stalk.] smooth, and whitish, with Leaves growing by threes at the Joints, somewhat larger, broader, and sharper than the Leaves of *Rue*, of the Ash Colour of *Rue*, or *Cole*, but disposed one after another about the Top of the Stalk; from whence spring out Flowers as it were in Heaps, blue, small, and having swelling yellow Lips, which fall by degrees upon the Stalks growing up, and the round Fruit remains among the Leaves; in which is contain'd a foliaceous, broad, flat, and black Seed, which, with respect to the Size of the Plant, is large.

It is hot to the Taste, and the Bitter and the Sweet in it, are so well proportion'd, that neither of them exceeds.

6. *Linaria Bellidis folio*. C. B. Pin. 212. Daisy-leav'd Toad-flax. *Linaria aliquatenus similis folio bellidis*. J. B. 3. 459. *Linaria odorata*. Dod. Pempt. 184. This is the *Linaria odorata* of Parkinson, and the *Linaria purpurea odorata* of Gerard.

I rank it in the Class of the *Linaria*, (says J. Bauhinus) because of its Seminal-vessels, and upper Leaves. It has a thickish, white, warped, simple Root, and sometimes divided into several Parts; from which spring many Leaves which lye along upon the Ground, almost like those of the *Daisy* or *Maudslayi*, deeply notched in the Edges, smooth, and bitter to the Taste; the others that grow along the Branches, are thin, narrow and longish; several Stalks rise quickly from the Root, half a Yard high, taper, very branchy, which are almost wholly bedeckt with a long Series of little Flowers, issuing out of the Bosoms of the Leaves, very small, and somewhat gaping, partly blue, and partly white, without any Spur. When the Flowers fall, they are succeeded by many small, roundish, and

and as it were bipartite Seminal-vessels, containing a copious, small, reddish, and bitter Seed.

J. Baubinus observed this in the Fields, betwixt *Lyons* and *Vienne*; we observed it in the Fields, betwixt *Lyons* and *Grenoble*, five or six Leagues from *Lyons*. *Ray*.

Clusius's Description of the *Linaria odorata*, would agree to the Plant described by us, if he did not say that the Flower has a little crooked Hook; but the Character of the Smell does not agree, wherefore I am apt to believe that two different Plants were comprehended by him under one and the same Description, and Designation, [*viz.* the *Linaria odorata*. *Monsp.* and the Plant here described.] *J. B.*

I could never yet, says *Mr. Ray*, observe any Spurs or little Horns in the Flowers of this Plant: and both the *Baubins* affirm, that they want Spurs. And as to what relates to the Smell, I could never smell any in the Flowers; nay, *Clusius* himself owns, that they only Smell a little in warm Countries; but that in *Germany* and the *Dutch* Gardens, they have no Smell at all. For which Reason, I embrace the Opinion of *J. Baubin*, *viz.* That *Clusius* confounded two Plants both in the Shape, and in his Description of them; which Mistake most of the latter Botanists have fallen into, by following of him.

This may conveniently enough be ranked amongst the *Linariae*; but it is not by any means to be accounted a genuine and proper Species of it: I could scarce perceive any Agreement in the Flowers; nor were the Leaves like those of any Species of *Linaria* known to me; since those that rise from the Root are very different from those that rise from the Stalks; for which Reason, when I first saw the Plant, I lookt upon it as anomalous, and of a Genus by it self. *Ray*.

7. *Linaria Bellidis folio, flore albo.* Daisy-leav'd Toad-flax, with a white Flower.

8. *Linaria Lusitanica, Bellidis flore ampliore & villoso.* Portuguese Toad-flax, with a Daisy flower, but larger, and hairy.

9. *Linaria Hederaceo folio glabro, seu Cymbalaria vulgaris.* Toad-flax, with a smooth Ivy Leaf. *Cymbalaria foscus purpurascens.* *J. B. 3. 685.* *Cymbalaria Italica, folio hederaceo.* *Lobel. Icon. 645.*

It darts forth out of the Holes of Walls pendulous, slender, purplish, taper, smooth, long Fibres, full of Nerves, from which the Bark is easily separated, turning differently into various little Fibres; thro' which you may see the Leaves hanging upon long Foot-stalks, hederaceous, corner'd, of a deep Green on the upper Side, and on the under Side Purple, like the Foot-stalks of the *Cyclamen*, growing by threes, succulent, and of a certain obscure Bitterness. Besides, at the Rise of the Foot-stalks, to which the Leaves adhere, there arise other twisted Foot-stalks, on each of which grows one single Flower, like those of the *Elatine*, or *Antirrhinum minus*, purplish, with a short Spur, and a pale Mouth. To these succeeds a globular Head, enclosing little crisped Seeds.

I have observed it at *Basil*, on the very Walls of the City. But in *Italy* there is nothing more common than to see it on Mud-walls, old Ruins, and upon Rocks. *Ray*.

It is of a moist and cold Quality, with a certain Degree of Astringency. They who have tried it, know by Experience, that it has the same Virtues with the *Navel-wort* of the first Kind. There are some who use it for the Whites, giving it fresh in Sallads, according to the Testimony of *Matthioli*. *J. B.*

10. *Linaria hederaceo folio, villoso, seu Cymbalaria Alpina.* *Cymbalaria Alpina villosa.* Tryumph. Syllab.

11. *Linaria fegetum, Nummularia folio villoso.* *Elatine folio subrotundo.* *C. B. Pin. 252.* *Elatine mas, folio subrotundo.* *J. B. 3. 372.* *Veronica femina Fuchsii sive Elatine.* *Dod. Pempt. 42.* Round-leav'd Bluellin, or Speedwell.

The Root which is simple, small, and attended with few Fibres, runs directly down into the Earth. The Stalk is slender, round, scarce a Hand breadth high; but the little Twigs which it spreads upon the Ground at the Sides, do often exceed a Span in length. The Leaves are larger and rounder than those of the *Alpine Media*, of a pale green and hoary, rough and soft to the Touch, generally equal about the Edges, but sometimes dented, sustained by very short Foot-stalks, being placed in Order at some distance from one another. Out of the Wings of the Leaves spring single Foot-stalks, long, slender, sustaining single Flowers, like those of *Linaria*, small, with a little crooked Spur, a wide Mouth,

Mouth, and a Lip between an herby and a yellow Colour, the upper one having a russet Jagg split into two. The Flower-Cup is composed of five Leaves. To the Flowers succeed little bulging Seminal-vessels, consisting of a double Cell, which contains the Seeds.

It grows in the Fields spontaneously, and in great Plenty. It flowers late, after Midsummer.

12. *Linaria segetum*, *Nummularia folio aurito & villoso*, flore luteo. *Corn. Toad-star*, with a golden and hairy Leaf like that of the *Nummularia*, and a yellow Flower. *Elatine folio acuminato*, in basi auriculato, flore luteo. C. B. Pin. 253. *Elatine femina*, folio anguloso. J. B. 3. 372. *Elatine altera*. Icon. Dod. Pempt. 42.

The *Elatine folio acuminato*, seu *femina foliis angulosis* of *J. Bauhinus*, differs from this, especially in the Form of its Leaves which are longer than it, end in a Point, and at the Bottom have little Ears like the *Acerosa ovilula*. *J. Bauhinus*, compares them to the Leaves of the *Helxine Cissampelos*, or Bindweed, or to the Point of an Arrow. This Species, says he, creeps more upon the Ground than it, and spreads forth very long Tendrels. The Flowers are alike, but less.

It is thought to agree in Virtues with *Speedwell*.

The Juice of the Herb press'd out, or Water distill'd from it, both taken inwardly, and applied outwardly is said to restrain, and perfectly to cure putrid and cancrus Ulcers.

Several very Learned Physicians, who had determined to cut off a Man's Nose, and had ordered very Experienced Surgeons, who were of the same Opinion, to perform the Operation, were dissuaded from it, by a poor Barber, who had learnt it of a certain excellent Physician, who had formerly been his Master: By anointing and fomenting his Nose with this Juice, he prevented the Nose being cut off, and cured the whole Body of a Leprosy, which was spreading all over it. The Leaves are bitter and astringent with a drying Faculty, which is not exasperating. *Lobel. Advers. p. 197.*

13. *Linaria segetum*, *Nummularia folio aurito & villoso*, flore caeruleo. *Corn. Toad-star*, with the golden and hairy Leaf of

Nummularia, and a blue flower. *Elatine folio acuminato*, flore caeruleo. C. B. Pin. 253.

14. *Linaria valentina*, *saxatilis & perennis*, villosa, flore luteo. The Rock, perennial, and hairy Toad-star of Valentia, with a yellow flower. ○

15. *Linaria pumila vulgatio*, *arvensis*. *Antirrhinum arvense*, minus. C. B. Pin. 212. *Antirrhinum minimum*. J. B. 3. 465. *Antirrhinum alterum*, *minimum*, *repens*. Lob. Icon. 406. The least Calves Snout, or Snapdragon.

16. *Linaria saxatilis*, *serpilli folio*. Rock-Toad-star, with a Mother of Thyme Leaf. *Antirrhinum saxatile*, folio *serpilli*. C. B. Prodr. 106. Bot. Monsp.

17. *Linaria saxatilis*, *Alfines folio villoso*. Rock-Toad-star, with a chickweed hairy Leaf.

18. *Linaria saxatilis*, *Polygoni folio villoso*. Rock-Toad-star, with a Knot-grass hairy Leaf.

19. *Linaria Hispanica*, *Nummularia folio villoso*. Spanish Toad-star, with a Honeywort hairy Leaf. *Antirrhinum saxatile minus*, *Origani folio viscoso & villoso*, flore albo, amplo. Barr. Icon.

20. *Linaria Hispanica*, *triphylla & latifolia*, villosa. Spanish three-leav'd, broad-leav'd, and hairy Toad-star.

21. *Linaria Lusitanica*, *maritima*, *Polygalæ folio*. Portugal maritime Toad-star, with the Leaf of Milk-wort.

22. *Linaria minima*, *hirsuto folio acuminato*, in basi auriculato, flore luteo-minimo. *Morif. Hist. Oxon. Part. 2. 503.* The smallest Toad-star, with a rough pointed Leaf, auriculated at Bottom, and a very little yellow flower.

23. *Linaria pusilla*, *procumbens*, *latifolia*, flore pallido, rictu aureo. *Raii. Hist. 755.*

This has a single Root, with many large Fibres, yellowish and annual; from which there arise many slender Stalks, that are feeble, taper, a hand-breadth high, leaning upon the Ground, grey, as are the Leaves, which sometimes rise on the Stalks single, sometimes by couples, opposite one to another, sometimes by threes, and sometimes by fours, from whence there shoot forth little Branches, sometimes single, sometimes by couples, and sometimes by threes. The Flowers rest upon long slender Foot-stalks, being white with a yellow Mouth, with very long

long and small Spurs turning backwards. That Part of the Flowers which stands up in the middle Cleft, represents as it were two Ears, as in the little purple *Linaria*. Five little green Leaves surround the Flower for a Flower-Cup. When the Flower vanishes, its Foot-stalk bends downwards. The Seminal-vessel is round, bivalve, and full of little red Seeds. As soon as the Seed is ripe, the Husk gapes, so that it is difficult to gather the Seed.

24. *Linaria Constantinopolitana*, Lini fativi folio, flore luteo. Constantinopolitan Toad-flax, with the Leaf of manured Flax, and a yellow Flower.

25. *Linaria Patmia*, maritima, Cymbalaria folio. Maritime Toad-flax of Patmos, with the Leaf of Gondelo.

26. *Linaria Orientalis*, Coris folio, flore leucophæo. Eastern Toad-flax, with the Leaf of Fair-heath Low-pine, and a dusky Flower.

27. *Linaria Orientalis*, flore luteo, maximo. Eastern Toad-flax, with a very large yellow Flower.

28. *Linaria Orientalis*, Lilli Persici foliis, florum spica densissima & pyramidata. Oriental Toad-flax, with Leaves of the Persian Lilly, and a very thick, and pyramidal Spike of Flowers.

29. *Linaria Orientalis*, latissimo folio, floribus *Linariae vulgaris*. Oriental Toad-flax, with a very broad Leaf, and Flowers of common Toad-flax.

30. *Linaria Orientalis*, vulgari similis, folio longissimo. Oriental Toad-flax, resembling the common one, with a very long Leaf.

31. *Linaria Orientalis*, erecta, angusto, oblongo folio, flore aureo. Oriental upright Toad-flax, with a narrow, oblong Leaf, and a Golden Flower.

32. *Linaria Orientalis*, foliis *Linariae vulgaris*, flore caruleo, palato carente. Oriental Toad-flax, with the Leaf of the common Toad-flax, and a blue Flower without a Palate.

33. *Linaria annua*, purpureo-violacea, calcaribus longis, foliis imis rotundioribus. Bot. Monsp. An *Linaria carulea*, calcaribus longis. J. B. 3. 461?

34. *Linaria pumila*, Lusitanica, floribus palato carentibus. Portuguese dwarf Toad-

flax, with flowers wanting a Palate.

35. *Linaria vulgaris*, lutea, flore majore. C. B. Pin. 212. Common yellow Toad-flax, with a large Flower. *Linaria lutea vulgaris*. J. B. 3. 456. *Linaria prima*. Dod. Pempt. 183. This is the *Linaria vulgaris* of Parkinson; and the *Linaria lutea vulgaris* of Gerard.

It thrusts it self down a vast way into the Earth, if it can find Room, by its white, hard and ligneous Roots. It sends up several Stalks at once from the same Root, about a Foot or half a Yard high, smooth, grey, clothed with thick-set Leaves, disposed in no Order, narrow, pointed, and so very like those of *Pine Spurge*, that unless it wanted Milk, it would be hard to distinguish them, before the Plant Flowers. The Stalks are branchy at Top; The Flowers are ranged on the Tops of the Stalks and little Branches, as if they were formed into *Spikes* and *Thyrse*; each of them rests upon a short Foot-stalk that springs out of the Wings of the Leaves, being yellow, with a Saffron Yawn, a Lip cut into three, and an erect Leaf cut as it were into two little Ears or Lappets, with an oblong, sharp Spur or Cornicle on its hinder Part, stretched out like the *Consolida regalis*, by which they differ from the Flowers of *Snapdragon*, which they otherwise very much resemble. The Flower-Cup is small, divided into five Parts; The Seminal-vessel, when ripe, is turgid, and gapes as it were into two Keels, containing plain round Seeds. The Taste of the Plant is bitterish and biting.

It is frequently to be met with at the Sides of Fields, near the High Roads, and in barren Ground.

36. *Linaria vulgaris*, flore majore, albo. C. B. Pin. 213. Common Toad-flax, with a large white Flower.

37. *Linaria vulgaris*, lutea, flore minore. C. B. Pin. 213. Common yellow Toad-flax, with a small Flower.

38. *Linaria* flore pallido, rictu aureo. C. B. Pin. 213. Toad-flax, with a pale Flower, and a Golden Yawn or Mouth. *Linaria Pannonica* flore luteo, minore quam in vulgari. J. B. 3. 458. *Linaria Pannonica* 1. Clus. Hist. 322. This is the *Linaria Pannonica* major of Parkinson. The great Flax-weed of Hungary.

Sometimes it grows a Yard high, bearing an upright, smooth, green Stalk, surrounded with many Leaves like those of manured Flax, which on the upper Part is divided into many slender short Branches, bearing Flowers thin-set, resembling the Flowers of the common *Toad-flax*, only smaller and paler, with a Yawn somewhat hairy and golden. The Seed, which is small and black, is contained in Seed-vessels like those of the common *Toad-flax*. The Root is longish, whitish, leaning upon many slender Fibres growing at the Sides, perennial, and bears new Stalks every Year on its Top; but it does not produce any from the lateral Fibres like the common one. It is all over bitterish.

It grows upon the Declivities of Mountains, by the high Ways, and in Places that are naked of Grass; above *Posen* on the *Danube*, *Gumpoltkirchen*, *Leytenberg*, as also in *Moravia*. It flowers in *June* and *July*, and sometimes even in *August*, and then it brings forth Fruit.

39. *Linaria flore pallido, rectu aureo*, elatior. The taller *Toad-flax*, with a pale Flower, and a Golden Pawn.

40. *Linaria flore pallido, rectu purpureo*. C. B. Pin. 213. *Toad-flax*, with a pale Flower, and a purple Pawn. *Linaria flore albicante*. Eyf.

This Species does not exceed the common *Toad-flax* in Height, but it has Leaves discernibly broader, and delicately green; with whitish Flowers beautified with a purple Yawn or Gape, and much thinner Set than the Flowers of common *Toad-flax*, which cloath the Tops of the Stalks much thicker, and like a Spike.

41. *Linaria erecta, flore majore, odoro, obsoleto cæruleo, rectu flavescente*. H. R. Par. Upright *Toad-flax*, with a large sweet-smelling Flower, of a dead green Colour, and a purplish Pawn.

42. *Linaria minor, repens, & inodora*. H. R. Par. The lesser creeping *Toad-flax*, without Smell.

43. *Linaria purpurea, major, odorata*. C. B. Pin. 213. Greater, sweet-smelling purple *Toad-flax*. *Linaria purpurea, magna*. J. B. 3. 460. *Linaria altera, purpurea*. Dod. Pempt. 183.

It sends up from a long, black, distorted,

ligneous Root, a Stalk a Cubit and a half high, which is taper, smooth, and firm, divided into very long Branches, and adorned with Leaves both longer and broader, than those of the *Linaria lutea*, without any perceptible Taste. The Flowers grow in a long Series along the Branches, gaping on the forepart, sending out a Spur on the hindpart, being of a purple Colour, and much lesser than those of the *Linaria lutea vulg.* The Seed is contained in small Seed-vessels, divided in two.

It grows about *Naples*, and at the Foot of Mount *Vesuvio*.

It is the largest of all the *Toad-flaxes* yet known to us; with a small Flower, of a deep purple Colour.

44. *Linaria alba, major, odorata*. C. B. Pin. 213. Greater, white, sweet-smelling *Toad-flax*.

45. *Linaria purpurea, odorata, major, foliis minus angustis*. C. B. Pin. 213. Greater, sweet-smelling, purple *Toad-flax*, with Leaves not quite so narrow.

46. *Linaria capillaceo folio, odora*. C. B. Pin. 213. Sweet-smelling *Toad-flax*, with a hairy Leaf. *Linaria odorata, Monspessulana*. J. B. 3. 459. *Linaria Caryophyllata*. Cam. Hort. 90. This is the *Linaria Caryophyllata albicans* of *Parkinson*. The sweet white *Toad-flax*.

It stands upon upright and stiff Stalks, a Yard high, reddish towards the Bottom, which are adorned with Leaves of common *Toad-flax*, but narrower, growing very close to one another, and of a bitterish Taste. The Top of the Stalk is divided into little tender Shoots, which bear Flowers ranged in the same Order as in the common *Toad-flax*, with a much shorter Spur, appearing but very little; in which they differ from the Plant, somewhat like *Toad-flax*, as well as in the Flowers being somewhat larger, of a most agreeable Smell, with the upper Leaf pale, variegated with purplish Stripes, and the under one divided into three white Jaggs, with a Downy Yawn or Gape, dyed with a Violet and Saffron Colour. The small Seeds are contained in roundish Vessels, like those of the aforesaid *Toad-flax*, but larger, and of an astringent Taste. The Root is lively, remarkably creeping, and of a white Colour.

It is to be met with every where about *Montpelier*; as likewise in *Cornwal*, a County of *England*, in Hedges not far from a Town called *Perin*, towards the West.

49. *Linaria foliis angustis, ex viridi canescentibus.* C. B. Pin. 213. *Toad-flax*, with narrow Leaves, of a whitish green Colour. *Linaria Hispanica* iij. Clus. Hist. 320.

Many slender Stalks of a Foot high, rise up from the Root of this Plant. They are surrounded by thick-set Leaves, which are narrow, long, of a whitish Green, almost the same Colour which we observe in the Leaves of *Lavender*, but bitter to the Taste. Round the Top of the Stalk grow many Flowers, somewhat sweet-smelling, ranged in the Form of a Spike, in Shape like the *Hispanica* 2da, whose upper Leaf cut in two, is of a pale white Colour on the outside, and purple on the inside; then the Yawn is of a whitish yellow Colour, with a rough and purple Lip, with three little purplish Beards hanging down. To the Flowers succeed the Seminal-vessels, but generally empty. It is a lively Plant, and every Year sends up new Stalks from the Root.

50. *Linaria tenuifolia, æruginei coloris.* C. B. Pin. 212. *Thin-leav'd Toad-flax*, of a rusty Colour. *Linaria Hispanica* ij. of Clus. Hist. 320. This is the *Linaria Hispanica atro-purpurea repens* of *Parkinson*.

It rises with slender and numerous Stalks from the same Root, which are very weak, and generally bending downwards; and are clothed with thick-set, very thin and soft Leaves, of a somewhat rusty Colour. Upon the Tops of the Stalks and little Branches rest some Flowers, in Shape like those of common *Toad-flax*, but somewhat smaller, beautiful, of a very black purple Colour, yellowish about the Yawn, with very little Smell. To the Flowers succeed round Heads, containing Seeds that are plain, and of an Ash-colour. The Root is white, and furnished with several Fibres that look like Hairs. The whole Plant is very tender, and is easily kill'd with Cold.

It flowers in the Summer; the Seed is ripe in *August*, and sometimes it flowers longer. It was raised from Seed sent from *Spain*.

51. *Linaria lutea, montana, Genistæ tinctorie folio.* C. B. Pin. 213. *Yellow Mountain Toad-flax*, with the Leaf of *Dyers Broom*.

52. *Linaria lutea flore minimo.* C. B. Pin. 213. *Yellow Toad-flax*, with a very small Leaf.

53. *Linaria Americana, parvo flore, luteo.* C. B. Pin. 212. *American Toad-flax*, with a small yellow flower. *Linaria Americana* C. B. Prodr. 106.

54. *Linaria arvensis, cærulea.* C. B. Pin. 213. *Linaria arvensis, cærulea, erecta.* C. B. Prodr. 107. *Linaria odorata, Monspessulana, minor, cærulea.* J. B. 3. 461.

It has slender and rigid Stalks about nine Inches high, rising from a little fibrous Root, which are encompassed with thin-set Leaves, growing in Order at a great distance from one another, as small as a Thread, and above half an Inch long. The Leaves follow one another in a certain Series upon the Top, larger than those of the *Linaria odorata*, blue, and furnished with a long Spur.

55. *Linaria arvensis, violacea.* C. B. Pin. 213. *Field, violet-colour'd Toad-flax.*

56. *Linaria quadrifolia, lutea.* C. B. Pin. 213. *Four-leav'd yellow Toad-flax.* *Linaria tetraphylla, lutea, minor.* C. Part. 1. 299.

This is a Plant of about a Foot high, with a small Root, and many Tendrels turning up; but the Stalk is upright, sending forth four Leaves at every joint, which are lesser below, and from the Middle to the Top not sending forth Leaves by Fours, but singly in Order, and shorter: The Leaves resemble *Flax* or *Toad-flax*, of the Colour of *Cole*, channelled below, standing straight upon the Stalk in Form of a Cross. On the Top there are a few Flowers, coming out of short Foot-stalks, resting upon rough Flower-Cups divided into five Parts, like those of the common *Toad-flax*, both in Shape and Order, but somewhat less, and yellowish. The Fruit is thick and round, distinguished by six Lines, with a little *Chive* at Top, in which is contained a blackish horned Seed, as in the other Species; It has the same bitter Taste with the rest.

57. *Linaria pumila supina, lutea.* C. B. Pin. 213. *Linaria lutea, parva, serpens.* J. B. 3. 457. *Linaria Hispanica v.* Clus. Hist. 321. This is the *Linaria pumila Hispanica* of *Parkinson*. *The Dwarf Spanish Toad-flax.*

It springs with little Twigs about four Inches long, which are very thick set, spreading upon the Ground, and clothed with

Leaves resembling those of common *Toad-flax*. Many yellow Flowers, smaller than those of the common *Toad-flax*, and gathered as it were into a Spike, possess the extreme Branches; To which succeed Heads less than those of the common *Toad-flax*, full of a small black Seed within. The Root is small and white, creeping after the manner of the common one. It is very bitter; and because it is generally found growing with the Ground Pine, and is therefore dwarfish, those of *Salamanca* took it to be a kind of *Chamaepitys*.

It grows in the Fields about *Salamanca*, in dry Places, where it flowers almost the whole Summer. Mr. *Magnol*, takes this to be the same that grows in the Rocks of *Wolfs-hill* and *Capouladon*.

58. *Linaria pumila*, foliis carnosiss, flosculis minimis, flavis. C. B. Pin. 213. Dwarf *Toad-flax*, with fleshy Leaves, and very small yellow Flowers. *Linaria lutea, parva, annua*. J. B. 3. 457. *Linaria 2. Moravica 1.* Clus. Hist. 321.

To me it grew of a different Size every Year, sometimes a Hand and a half high, and at other Times above nine Inches high, from several small whitish Stalks: Now the Stalks, which are tender, and numerous, and the Leaves which are more tender, narrower, and thicker than in the common *Toad-flax*, of a grey Colour, grow by threes, or fours, or fives, at certain distances from each other, but sometimes irregularly, and are bitter to the Taste. The little Flowers rest upon the Tops of the small Branches, in the Form of *Linaria*, of a *Saffron* Colour, but four times less, with no manner of Smell. To these succeed little oblong Balls, containing little round flat Seed: The Root is small and bitter. J. B.

59. *Linaria foliis carnosiss, cinereis*. C. B. Pin. 213. *Toad-flax*, with fleshy Ash-colour'd Leaves. *Linaria Hispanica* iv. Clus. Hist. 321. This is the *Linaria parva Hispanica altera* of *Parkinson*.

This other small *Spanish Toad-flax* has several weak slender Branches, with many small narrow Leaves, encompassing them, fatter and thicker to the Touch, and somewhat lesser than the last, and of an Ash-colour: The Tops of the Stalks are furnished with a great many small Flowers, of a pale bluish,

or Ash-colour, with a yellow Spot in the Mouth or Yawn. The Seed and Seed-vessels are small, according to the Proportion of the Plant: The Root is small and white, and perishes every Year.

60. *Linaria carulea, repens*. C. B. Pin. 213. The small blue, creeping *Toad-flax*. *Linaria parva, purpurea, foliis sine ordine dispositis*. J. B. 3. 460. *Linaria* iv *Moravica*, ij. Clus. Hist. 322.

This small *Toad-flax* sends from the Root Abundance of small weak Stalks, leaning down to the Ground, scarce being able to stand upright, set without Order, with many small and very narrow Ash-colour'd Leaves up to the Tops; where they grow into several other smaller Branches, having a long Head, or Spike of Flowers, very small, and of a fine bluish purple Colour, with a yellow Spot in the Mouth or Yawn of them. The Seed is not unlike the former; but the Root shoots forth many Fibres; and holds out the whole Winter.

61. *Linaria repens*, flore candidissimo. Pluck. Almag. Bot. Creeping *Toad-flax*, with a very white Flower.

62. *Linaria quadrifolia supina*. C. B. Pin. 213. Four-leav'd low *Toad-flax*. *Linaria purpurea, parva*. J. B. 3. 460. *Linaria tertia, Syriaca*. Clus. Hist. 322. This is the *Linaria quadrifolia Alpina* of *Parkinson*. The Mountain blue *Flax-weed*.

This Mountain *Toad-flax* shoots forth its small weak Stalks, lying almost upon the Ground, variously divided into many smaller Branches, even from the Bottom; upon which are set small whitish green Leaves, very orderly at the several Joints, one above another, that is, at some but two Leaves, at others three or four, not always keeping Proportion in the Number, especially below, but rather upward. The Flowers that stand at the Tops of the Branches, are in Form like the other, and pretty big, but stand not so thick clustering together, being of a delicate purple blue Colour, with a yellow Spot in the Yawn or Mouth. The Heads that follow for Seed are pretty big, having blackish flat Seed within them: The Root is small and white, spreading several Ways under Ground, and perishes not in the Winter.

63. *Linaria Sicula, multicaulis, Molluginis folio*. Bocc. Rarior. Plant. 38. Sicilian *Toad-*

Toad-flax, with many Stalks, and Leaf of white flower'd Ladies Bed-straw.

The Stalks of this Plant are a Yard high, round, branchy and reddish. The Leaves are narrow, an Inch long, the undermost ones growing round the Joints in Form of Stars, like those of white flower'd Ladies Bed-straw; but the upper ones are not disposed in any Order, and are fleshy after the manner of *Kali*, with a deep Furrow or Channel running lengthwise. The Flowers are yellow, and less than those of the common *Toad-flax*. When the Flowers decay, they are succeeded by round Heads, in which the Seed is contained. The Root is perennial, small and fibrous.

It flowers the whole Summer at *Pandormo*, and abounds in other Places in *Sicily*.

64. *Linaria annua; angustifolia, flore majore, luteo. Moris. Hist. Oxon. Part. 2. 1499.* Annual narrow-leav'd Toad-flax, with a large yellow Flower.

65. *Linaria maritima; minima, viscosa, foliis hirsutis, floribus luteis. Moris. Hist. Oxon. Part. 499.* The smallest, maritime, viscous Toad-flax, with rough Leaves, and yellow Flowers.

It bears rough viscous Leaves, of a much lighter Green than the Leaves of the Species immediately preceeding, covered over with Hairs. The Stalks are half a Foot high; on the Tops of which grow very small yellow Flowers; which decaying, they are succeeded by little round, double-furrowed Heads, containing black, flat, or foliaceous Seeds.

66. *Linaria Hispanica, tenuifolia, viscosa & villosa. Spanish small-leav'd, viscous and hairy Toad-flax.*

67. *Linaria Saxatilis, Thymi folio. Rock-Toad-flax, with a Thyme Leaf.*

68. *Linaria annua, angustifolia, flosculis albis, longius Caudatis. Triumph. 87. An Linaria alba vel albicans, inodora. J. B. 3. 459. Olyris alba. Lob. Icon. 408.*

From a Root about two Inches long, ligneous, small, covered over with a white Bark or Skin, and divided into distorted Fibres, with a great many little Beards hanging at them, bud forth two or three slender Stalks, which at first bend downwards, being very weak, greenish and full of Juice, which are encompassed, at certain distances, by small Leaves generally growing by fours in the

Form of a Star, entire, narrow and oblong, but pretty plump, and of a deep Green. One, or two at most, of those slender Stalks, when the Plant arrives at its full Growth, rise to the Height of four or six Inches, (the others in the mean while decaying by degrees;) then this upright, round, and ligneous Stalk begins to grow somewhat thicker, being within full of white Pith, and without enwrapped with a Membrane, which is at first of a dark Yellow, and afterwards becomes more paleish, which is moreover divided into some few more little Branches, breaking out from the Bosom of the Leaves. The upper Leaves are in Order longer and narrower than those beneath, and at length become an Inch long; the uppermost ones hang down single, and become almost capillaceous, or like Hairs. About the Beginning of June come out thin-set, and small Leaves upon the Tops of the little Stalks, being supported by short Foot-stalks, rising out of the Flower-Cup divided into five Parts, like the rest of the same Genus, but extremely small, with a very long Spur, and of a Colour perfectly white. The Seed-vessels are oblong and turgid, separated in the middle by an open Hole, and parted into two little Cells by a thin white Midriff or Partition, being both fill'd with a copious small Seed, which is very black when ripe, between round and oblong, broader at one Extremity, than at the other, the Taste of which, as well as of the other Parts, is bitterish.

When the Seed is fully ripe, the Plant is entirely withered.

It has been often observed to grow at *Rome*, near the *Farnesian Hills*, not far from that Part which looks to the South, by *Jo. Baptista Triumfetti*.

This Genus is called *Linaria* from the Resemblance, between its Leaves and those of *Linum* or Flax.

Tho' there is but one Species of this large Genus commonly made use of in Shops, yet as we have shewn the medicinal Virtues of some others in the Course of these Descriptions; So we may affirm, that in some degree they are all effectual; notwithstanding the most common Kind is most used, and perhaps with most Reason too. This then is made use of to provoke Urine, both when it is stopped, as also in dropical Cafes, to carry off that

Abundance of watery Humours by Urine, and to wash the Reins and Urinal Vessels from Gravel and Stones gathered there. The Decoction of the Herb, both Leaves and Flowers, in Wine, taken and drunk, gently moves the Belly, opens the Obstructions of the Liver, cures the Yellow Jaundice, expells Poison, provokes Women's Courses, and drives out the dead Child and After-birth. The distill'd Water of the Herb and Flowers is effectual for all the same Purposes, especially being drunk with a Dram of the Powder of the Seeds, or Bark of the Root of *Wall-mort*, and a little Cinnamon for some Days successively; and is accounted a singular Remedy for the *Dropsy*, by spending the Water and Humours. The Juice of the Herb, or the distilled Water dropped into the Eyes, is a certain Remedy for all Heat, Inflammation and Redness in them. The Juice or Water put into foul Ulcers, whether they be cancrus or fistulous, with Tents rowled in it, or the Parts washed or injected with it, cleanses them thoroughly from the Bottom, and heals them up safely. The same Juice or Water, either applied by it self, or used with some Powder of *Lupines*, cleanses the Skin wonderfully from all Sorts of Deformity, as *Leprosy*, *Morphew*, *Scurf*, *Wheals*, *Pimples*, or any other Spots and Marks in the Skin. *Park.*

It is likewise accounted an excellent Anodyne, as it is reckoned a Specifick for allaying the Pains of dry *Hemorrhoids* or *Piles*. The Decoction of the Plant relieves those who have fallen from any Eminence, by dissolving the congeal'd and clotted Blood. There is likewise an Ointment made of this Herb, for the *Hemorrhoids*; which is prepared in this manner: You must take the Herb and Flowers, and after you have bruised them, you must boil them with *Hog's Lard*, and add to the Liquor the Yelk of an Egg, which being of the Consistency of an Ointment, you must apply with Wool to the Part affected. *Hoffm.*

But that you may have a compleat Idea of the Virtues of this Plant, I shall subjoin Mr. *Tournefort's* Account of it, as he has it from the *Memoires de l'Academie des Sciences*.

The *Linaria lutea vulgaris* of *Bauhinus*, or the *Linaria* Prior of *Dodonaeus*, says he, has a Salty Taste; and when it is rubb'd, Smells like Elder. Its Leaves don't redden blue Pa-

per, but its Flowers redden it sufficiently; which gives us Ground to believe, that its Leaves contain a sharp Salt of a near Affinity to the natural Salt of the Earth, but in this Plant is mixed with a very considerable Quantity of fetid Oil. The Flowers have a disagreeable Smell, but in them the *Sal Armoniac* lies more open, which is the Reason of their reddening blue Paper. This Plant applied externally, is very lenitive and resolvent; Qualities inseparable from the fetid Oil of *Tartar*, of *Harebourn* and *Vipers*, &c. I don't know a more excellent Remedy for allaying the Pains which are felt by those who are afflicted with the *Cancer*, than to anoint it with fresh Butter, mixed with Oil that has been drawn through the Retort. *Flax-weed* then or *Toad-flax*, resolves the Blood or Matter extravasated in the Porosities of the Flesh, and at the same time softens the Fibres; the extraordinary Tension of which, causes insupportable Pains. The Ointment of *Toad-flax*, is excellent to abate the Inflammation of the *Hemorrhoids*. The Manner of preparing it is thus: You must boil the Leaves of this Plant in Oil, in which have been infused *Beetles* or *Woodlice*; then you must strain the Oil through a Linnen Cloth, and add to it the Yelk of an Egg boiled hard, and as much new Wax as is necessary to give it the Consistence of an Ointment. Others, as Mr. *Ray*, observes, boil it with *Hog's Lard*, so long till it becomes of a fine green Colour, and add to it the Yelk of an Egg, when they are going to make use of it. *Horstius* relates, That a *Land-grave* of *Hess*, gave *John Huls* his Physician, a fat Ox every Year for discovering this Secret to him.

The same excellent Author, gives us the Qualities of the *Linaria segetum, nummularia folio villosa*, in these Words. The Leaves, says he, are very bitter, and somewhat astringent, and their Smell has somewhat of Oiliness in it: They do not much redden blue Paper; from whence we may conclude, that their Salt has a near Affinity to the natural Salt of the Earth; but that it is joined with Abundance of Sulphur and Earthly Particles. This Plant is vulnerary, mitigating, and deterfive or cleansing: It purifies the Blood, and restores the Balm of Life, which consists of a Sulphur modified by a sharp Salt. *Celsapinus* extoll'd this Plant for Scrophulous Tumours



Tab. 77. Pedicularis. *Yellow-rattle or Cocks-* ^{Page 269}
comb.



Tumours and the Leprosy. For the Cancer, Gout, Tetters, Leprosy and Dropsy, the Patients must drink twice a Day three Ounces of the Juice, or six Ounces of the distill'd Water. There is a Tincture of it drawn with the Spirit of Wine; or there is an Extract of it prepared, the Dose of which is a Dram. The following Ointment is very good for Ulcers, for the Piles, for the King's-Evil, and for all Maladies of the Skin. Macerate the Leaves of this Plant for four and twenty Hours, in as much white Wine as is sufficient to cover them; Press out the Juice, and boil it till there remains only a third of the Liquor, adding to it as much Hog's-Grease, as is sufficient to give it the Consistence of an Ointment.

TABLE LXXVI.

GENUS III.

Asarina, Bastard Asarum, or Asarabacca.

Asarina, is a Plant with an anomalous, fistulous, and perforated Flower of one single Leaf A, resembling the Flower of Snapdragon. Out of the Flower-Cup C, rises the Pointal D, fastened like a Nail in the hinder Part of the Flower B, which afterwards turns to a Fruit, or roundish Husk E, divided into two Apartments K, by the intermediate Midriff or Partition G, and full of Seeds, adhering to the Placenta H. For which Cause, Asarina may be defined, a Plant with the Flower of Snapdragon, and the Fruit of Toad-flax.

I know but one Species of Asarina, which is,

Asarina Lobelii, Lugd. 915. *Hedera saxatilis magno flore.* C. B. Pin. 306. *Asarina Lobelii, flore hederae terrestri.* J. B. 3. App. 856. *Asarina five saxatilis Hederula.* Lob. Icon. 601.

From the jejune and obscure Description of Lobelius, it is hard to tell what Genus of Plants it ought to be referr'd to. Matthiolus seems to have been the first who gave it that Name, in which he has been followed by

others; but Clusius very much suspects it to be his second *Tussilago Alpina*, and that his Figure was taken from a Dry Plant, and before it had brought forth Flowers to Perfection; a Custom very familiar to this great Commentator upon *Dioscorides*. Our Parkinson describes it thus,

Asarina, or Bastard Asarum, says he, is a low Herb creeping upon the Ground, somewhat like Asarum, having such like Leaves upon long hairy Foot-stalks, but rounder and rougher than they, and somewhat dented about the Edges: The Flowers are like Camomil Flowers, but are considerably smaller, and wholly Yellow, as well the Border of Leaves, as middle Thrum or Chives, and are not unpleasant to the Smell. The Roots are slender, small and long, creeping under the upper crust of the Earth, and not Shooting down deep, somewhat sharp and biting to the Taste, and withal a little bitter.

Matthiolus says, the Bastard Asarum has a cleansing Quality, but a greater Faculty to attenuate that which is thick, to cut or break that which is tough, and to open Obstructions. A Dram of the Powder taken in sweet Wine, or Honey-water, loosens the Belly, and carries off thick and tough Flegm, and black or adust Humours. It is given to very good Purpose and Advantage, to such as have the Yellow Jaundice, to such as have the Falling Sickness, and to such as have the Palsy; if the Herb be either taken by it self, or the Decoction of it drunk. It is said likewise to kill the Worms in the Belly.

TABLE LXXVII.

GENUS IV.

Pedicularis, Rattle, or Rattle-Grass.

Rattle, is a Plant with an anomalous, fistulous, and perforated Flower of one single Leaf A B, divided into two Lips, the upper one A B is crested, but the under one generally parted into three. Out of the Flower-Cup D F, rises the Pointal E G, fastened like a Nail to the hinder Part of the Flower X, which afterwards turns to a Fruit H M,

H.M., gaping two Ways IN, divided into two Cells K.O., full of oblong Seeds L, or flat and border'd ones P.

The Species of this Plant are,

1. *Pedicularis pratensis*, lutea, vel *Crista Galli*. C. B. Pin. 163. *Crista Galli femina*. J. B. 3. 436. *Crista Galli*. Dod. Pempt. 556. **Yellow Rattle, or Cocks-Comb.**

From a small, white, single Root, sending forth little Tendrils at the Sides, and not shooting down deep into the Earth, arises a Stalk generally single, a Foot long, stiff, smooth, square, upright, small, often variegated with black Spots and Stains, and towards the upper End purplish, divided into several Branches, which are always encompassed with two Leaves, directly opposite to one another, without Foot-stalks, having a broad Bottom, and from thence growing gradually narrower to the very Point, about the Length of one's Finger, sharp, dented round the Edges, imitating a *Cocks-Comb*, with considerable Veins running on both Sides, from the middle Rib to each of the Teeth. Out of the Bosoms of the Leaves, spring little Branches or Boughs in Pairs, or opposite to one another. Upon the Tops of the Stalks and Branches, come forth Bunches of Flowers forming a Spike, each of which rises out of a particular Wing of a Leaf, with very short Foot-stalks, and turgid, flat Spurs, cut into four acute Segments upon their upper Edge. The Flowers consist of one Leaf, are yellow, in the Shape of a *Cowl*, and hide the small Pointal, and four *Stamina* or Threads with their *Chives*. When the Flowers fall, the Flower-Cup swells into a much larger Bladder, and contains within it a large flat Seminal-vessel, divided in the middle into two Cells, and containing several flat Seeds, begirt with a membranaceous Border, of a dusty or Ash-colour. Immediately upon the Seeds being ripe, the membranaceous Vessels split, and become lucid when dry.

It flowers in June, and the Seed is quickly ripe, which immediately sheds, and then the Plant dries up.

It grows especially in barren Ground, and often in Plow'd Land, unprofitable and hurtful in both, as J. Bauhinus justly observes.

2. *Pedicularis pratensis*, lutea, erectior, ca-

lyce floris hirsuto. **Yellow Meadow Rattle**, more erect, with a rough Flower-Cup. *Crista Galli mas*. J. B. 3. 436. *Pedicularia lutea*. Tabern. Icon. 761.

It differs from the former in Stature and Height, which is sometimes a Foot and a Half; with a stronger Stalk, and broader Leaves; with much larger Flowers; the Tops more whitish, and rough Bladders.

I have observed this, together with the Female one, in the Meadows about Geneva; but could never yet find it in England. Ray.

3. *Pedicularis Alpina*, floribus spicatis, pallidis. **Mountain Rattle, with Spiked pale Flowers.** *Crista Galli montana*, floribus pallidis, in spicam congestis. Raii. Hist. 770.

It has a single white Root, furnished with a few Fibres, of the Size and Shape of that of *Goats-beard*, only it is longer, with a Taste not disagreeable of the Hazel-Nut, but somewhat more bitter. The Leaves at the Root, which are but one or two, are winged, and composed of many Feathers joined together, after the manner of *Fern*, rough beneath, ending in a Point, each Feather being jagged at the Edges, exactly imitating the Leaves of the *Crista Galli vulgaris lutea*, being of a Green that tends very much to Yellow. The Stalk is single from the same Root, nine Inches or a Foot high, taper, firm, somewhat rough, hollow within, not at all brachy, so far as I remember, bearing on its Top a long Spike of Flowers very thick set, of a pale Yellow, like those of the *Crista Galli vulgaris*, unless that they are larger, and hardly open, peeping out of a swollen five corner'd Flower-Cup, with no Foot-stalks. At each Flower there grows a Leaf like those that grow at the Root; however the upper Leaves cease to be Feathered, and are very like the Leaves of the common yellow Rattle. In the Flower-Cup lurks the copped Seed-vessel, full of small round Seeds. Generally this Plant has one Leaf below the Spike. Ray.

4. *Pedicularis lutea*, viscosa, serrata pratensis. **Yellow, clammy and jagged Rattle.** *Euphrasia lutea, viscata, serrata pratensis*. Moris. H. R. Bles.

5. *Pedicularis Hispanica*, umbellata. **Spanish umbellated Rattle.** *Crista Galli umbellata*. J. B. Prodr. 85.

6. *Pedi-*

6. *Pedicularis angustifolia, montana.* *Parrow-leav'd, Mountain Rattle.* *Crista Galli angustifolia, montana.* C. B. Prodr. 86.

The Stalk is corner'd, and half a Yard long; the Leaves oblong, narrow, pointed, notched round the Edges, growing by two's, one directly opposite to the other; out of whose Wings come forth lesser Leaves, and generally a slender Stalk, one or two Inches high, begirt with very small Leaves. The Stalk it self is parted into Branches half a hand-breadth or more high, upon which rest pale Flowers, placed in the same Order as in the common one, but much smaller; to which succeed little Valves containing broad Seed.

This is found in the Mountains near the City of *Basil*.

7. *Pedicularis versicolor, spicata.* *Spiked, variegated Rattle.* *Alectorolophos Italica, versicolor, spicata.* Barr. Icon.

8. *Pedicularis maritima, folio oblongo, serrato.* *Maritime Rattle, with an oblong jagged Leaf.* *Trixago Apula, unicanlis, tetra-stachys.* C. Part. 1. 119. *Chamadrys unicanlis, spicata.* C. B. Pin. 248. *Antirrhinum album, serrato folio.* J. B. 3. 437. *Antirrhinum folio dissecto.* C. B. Pin. 211.

F. *Columna* describes this Plant fully and exactly thus: It is a Plant of one Stalk always, rising from a single Root, with a Stalk a Foot high, or a Foot and a half high at most, square, rough, whitish, or purplish, begirt with Leaves about a Fingers breadth distant, by two's, opposite to one another, narrow, oblong, blunt, thick and fleshy, of a greenish white, rough, with thin-set jagged Teeth, larger at the middle of the Stalk, and about three Inches long. On the Top of the Stalk rests a square Spike composed of roundish crested, rough, thick-set Leaves, like those of the common *Eye-bright*; from which come forth copped Flowers, which are very large in Proportion to the Plant, with broad Beards, that are white and pale, and rough purplish Heads, from whence sticks out a yellow Thread like a Tooth. The bivalve Seed-vessel is inclosed in a pretty large Bottle or Bladder. The Seed is small as the Sand, very copious and yellow.

9. *Pedicularis annua, Alpina, lutea, angustifolia.* *Parrow-leav'd, yellow, annual Rattle of the Alps.*

10. *Pedicularis purpurea, annua, minima, verna.* *The smallest annual, vernal, purple Rattle.* *Euphrasia purpurea minor.* C. B. Prodr. 111. Bot. Monsp. *Euphrasia pratensis, Italica, latifolia.* C. B. Pin. 234. *Euphrasia non scripta five media.* Col. Part. 1. 202.

From a very small fibrous Root, it sends up a Stalk not a hand-breadth high. The Leaves are thin-set along the Stalk, encompassing the Stalk by couples at certain distances, being oblong, wrinkled, pretty deeply notched, and somewhat rough. On the Top it produces a Spike of Flowers, which always grow by couples over-against one another of a purple Colour, and resembling the Flowers of *Snapdragon*. The upper-Lip is divided into three, and marked with three little white Spots. To the Flowers succeed longish Bladders, full of very small reddish Seed. The Plant is annual; The Description of C. *Bauhinus*, does not agree to this as to the Seed.

Magnol found it in Flower in the Month of May, beyond the Bridge of *Salenens*, by the Road as you go to the Village called *Saint Jordi*, in those Barren Places called *Garrigues*.

The Seeds are not like those of *Eye-bright*, but like those of *Snapdragon*, with which it also agrees in Flowers.

11. *Pedicularis alba, annua, minima, verna.* *The smallest white, annual, vernal Rattle.* *Euphrasia pratensis, Italica, latifolia, flore candido.* C. B. Pin. 234.

12. *Pedicularis Anglica, foliis brevibus, obtusis.* *English Rattle, with short blunt Leaves.* *Euphrasia rubra Westmorlandica, foliis brevibus, obtusis.* Raii. Synopf. 162.

It has a white, hard Root with pretty large Fibres, and, as, I thought, creeping. The Stalks half a Foot high, slender, upright, stiff, branched, somewhat rough and brittle. The Leaves grow upon the Stalk in pairs without Foot-stalks, in Shape and Size, like those of the *Alpine Chamadryfolia*, wrinkled, dented about the Edges, of a Greenness tending to an Ash-colour, and somewhat thinning. The Flowers stand upon the Tops of the Stalks out of the Wings of the Leaves, being supported by short Foot-stalks, in Form like the Flowers of the *Crista Galli*, with a longer Pipe, of a nasty purple Colour, and a Flower-Cup divided into four Parts: To which succeed

ceed swoln Seminal-vessels, divided into two Parts by a Line drawn in the middle. The Seeds are white, like those of *Crataegonum*. The Plant is somewhat biting and bitter.

It grows near *Orton*, a Village in *Westmorland*, near a little Rivulet, which runs by the Road as you go from thence to *Crosby*. It flowers after *Midsummer*.

13. *Pedicularis Alpina*, *Tetræii folio*, atro-rubente coma. Rattle of the Alps, with a Tree-Germander Leaf, and a dark red Top. *Clinopodium Alpinum*, *hirsutum*. C. B. Pin. 225. *Chamadri vulgari falsa affinis*, *Alpina* & *Clinopodium Alpinum* Pona. J. B. 3. 289. *Clinopodium Alpinum* Pona. Bald. Ital. 95. This is the *Clinopodium Greticum* of *Alpinus* in his *Exotic*: which he thus describes:

It grows up with six, or seven, or fewer Stalks nine Inches high, upright, round and slender. Its Leaves are perfectly like those of the Mother of *Thyme*, both in Shape, and Size, and Order, and very closely surrounding the Stalks by couples, opposite to one another at very small distances. Betwixt the Leaves and the Stalks, bud out little Flowers by couples or threes, of a Viney Colour, from which very small Seeds are produced. The whole Plant smells like Mother of *Thyme*, only the Smell is more sweet and agreeable, and is hot to the Taste. The Root is long, slender, ligneous, without Smell and Taste.

If you except the Smell, this Plant is very like the *English Basil*.

14. *Pedicularis Pyrenaica*, *Veronica folio*. Pyrenean Rattle, with a Speedwell Leaf.

15. *Pedicularis Lusitana*, *altissima*, *Chamadryfolia*. The tallest Portuguese Rattle, with a Germander Leaf.

16. *Pedicularis Serotina*, *purpurascens* flore. Late Rattle, with a purple Leaf. *Euphrasia pratensis rubra*. J. B. Pin. 234. *Euphrasia parva*, *purpurea*. J. B. 3. 433. *Euphrasia Sylvestris altera*. Dod. Pempt. 55. Red Meadow-Eye-bright, or Eye-bright Cow-wheat.

From a white, ligneous, small Root, bending several Ways, sometimes single, and sometimes divided into many Parts, or spread into many Fibres, rises a Stalk nine Inches or a Foot high, firm and taper, which yet approaches to a square, somewhat rough, with a short Down, solid, and branched from the very Bottom up. The Leaves are

about the length of one's Finger, narrow, (about the third Part of one's Finger broad) growing narrow by degrees, from the Bottom to the Point, nervous, the Nerves or Veins being very conspicuous, jagged round the Edges with thin-set Teeth, growing upon the Stalk in couples, and adhering to it without Foot-stalks. The Flowers are ranged on the Tops of the Stalks and Branches in Form of a Spike, each of them coming out of single Wings of the Leaves upon very short Foot-stalks, being crested, purplish or Flesh-coloured, rarely white, and having a Lip divided into three Parts. The Flower-Cup pretty large for the Size of the Flower, divided on the upper Part into four acute Segments, containing within it an oblong Seed-vessel, like that of the *Euphrasia vulgaris*.

17. *Pedicularis serotina*, lutea. Late yellow Rattle. *Euphrasia pratensis*, lutea. J. B. Pin. 234. *Coris Monspessulana*, lutea. J. B. 3. 433. *Euphrasia Sylvestris*, major, lutea, angustifolia. Col. Part. 1. 203. Yellow narrow-leav'd Eye-bright.

It has a single Stalk, half a Yard high, small, ligneous, almost red, square, with obtuse Corners, (round J. B.) begirt with narrow Leaves, like *Flax* or *Hyssop*, thick, adhering to the Stalk by couples upon the Joints, and dented with three Teeth at a good distance from one another; from which come forth Wings on both Sides in Form of a Cross, being oblique, and very oblong in Proportion to the Stalk and Plant: From the Middle to the Top of which, thick-set Flowers are disposed in one Rank, being doubled and crested, bowing downwards, rising out of little Bottles, but refreshing the Eye with a deep Yellow or Golden-colour. The Seed is ripe in *October*, being white and corner'd like that of Eye-bright, and falls down from the Bottom of the Husks, which gape when they are dry.

It flowers late, viz. after *Midsummer*; and the ligneous, dry Plant, naked of Leaves, stands the whole Winter; with only the branched Tops standing upon it. It seems to be of a bitter, astrigent and cleansing Taste, and frets the Tongue.

18. *Pedicularis foliis Lini angustioribus*. Rattle, with Flax Leaves, but narrow. *Euphrasia foliis Lini angustioribus*. C. B. Pin. 234. *Euphrasia Linifolia*. Col. Part. 2. 69.

The

The Leaves of this Plant, are much slender and narrower than those of *Flax*. The whole Plant with the Root, does not exceed nine Inches in Height. It resembles the common Eye-bright in Flower, Fruit, Seed, and Taste.

19. *Pedicularis Lusitanica, pratensis, gramineo folio*. Portuguese Meadow-Rattle, with a Grass-Leaf. *Euphrasia scoparia, flore luteo*. V. Lusit.

20. *Pedicularis Hispanica, palustris, Kali folio*. Spanish Marsh-Rattle, with a Catswort Leaf.

21. *Pedicularis Alpina lutea*. C. B. Pin. 163. Yellow Mountain-Rattle. *Pedicularis Alpina, flore luteo, radice nigra*. J. B. 3. 439. *Filipendula Alpina*. Lugd. 1138.

It has a thick, black Root, divided into many Parts. The Leaves stand upon a long Foot-stalk, and are composed of many smaller Leaves, which are cut into very small Jaggs, opposite to one another as in the common *Drop-wort*, which gave occasion to its being called *Filipendula Alpina*. Lugd. The Stalk which is above a Foot high, sustains on its Top yellow Flowers, ranged in the Form of a Spike: When they fall, they are succeeded by oblong Seed-vessels, like the Seed-vessels of *Snaptadragon*, and full of small Seed.

They grow on the highest Parts of the Alps.

The Description of this Plant is not perfectly given by the Botanists: It differs from our *Mountain-Rattle*, in its black Root, and the numerous Leaves upon the Stalk (unless the Figure deceives us) and in the very small Jaggs cut into its Leaves, as in the *Filipendula*.

22. *Pedicularis Alpina Filicis folio, major*. C. B. Pin. 163. The greater Mountain-Rattle, with a Fern Leaf. *Pedicularis major Dalechampii*. J. B. 3. 438. *Pedicularis major, Alpina*. Lugd. 1138.

It very much resembles the *Filipendula Alpina*, with a Root black without, in Shape like a Turnip, wrinkled, and furnished with some Shoots. The Stalk is almost half a Yard high, streaked and single. The Leaves are like those of the *Fern*, placed in Order upon a long Foot-stalk, notched round the Edges, with the Foot-stalk of each Leaf coming out of the Stalk alternately. The Flower is pale, collected in Form of a Spike, upon the Top of the Stalk; with copious Seed contained in

broad Barky-vessels, after the manner of *Mad-wort*.

It grows on the Top of the Golden Mountain near *Gergoie*.

23. *Pedicularis Alpina, folio Ceterach. C. B. Pin. 163*. Mountain-Rattle, with *Ceterach*, or *Wilt-waste Leaves*. *Herba foliis asplenio similis*. Gefn. Fract. 65.

24. *Pedicularis Alpinus, Filicis folio, minor*. C. B. Pin. 163. *Alectorolophos* iij. Clus. Hist. ccx. *Alectorolophus Alpinus, minor*. Clus. Pan. 707.

25. *Pedicularis Alpina, Asphodeli radice, purpurascens flore*. Mountain-Rattle, with an *Asphodel Root*, and a purplish Flower. *Filipendula montana, flore Pedicularie*. C. B. Pin. 163. *Pedicularis bulbosa*. J. B. 3. 438. *Alectorolophos Alpina*. Clus. Hist. ccx. This is the *Filipendula montana, major, altera* of *Parkinson*, and the *Filipendula montana* of *Gerarde*.

It sends up from one Root a great many Stalks half a Yard high, about the Thickness of one's little Finger, smooth, and hollow; on the Tops of which are many Flowers gathered in Heaps, like an oblong Spike, as in the *Orchis*, being couled, larger than those of *Rattle*, coming forth among the smaller Leaves out of Flower-Cups with five Corners, and are of a pale white Colour. The Leaves rest upon Foot-stalks about four Inches long, being feathered, and divided like those of *Drop-wort*; they come immediately from the Root, resembling the few that are upon the Stalks, excepting those upon the Top, where the Spike of Flowers begins, in which Place they are pretty thick-set. To the Flowers succeed pointed Heads, which gape when ripe, and discover a very small uneven Seed, of an Ash-colour. The Roots, which are many, are interwoven with capillary Fibres, which are very slender at first, but increase by degrees; tho' they come not near the Roots of *Filipendula* in Bigness. The Vestiges of the old Stalks, demonstrate that it is not an annual Plant.

26. *Pedicularis Alpina, altera, Asphodeli radice*. Another Mountain-Rattle, with an *Asphodel Root*. *Filipendula montana, altera*. C. B. Pin. 163. *Alectorolophos Alpina* ij. Clus. ccx.

It is almost in all respects like the former; only it is much softer, and its Flowers are sometimes pale, and sometimes purple. The

Root likewise is thick, and sends out Fibres like those of the *Asparagus*.

It grows not only at the Tops of the *Alps*, but likewise in lower and marshy Grounds.

27. *Pedicularis pratensis, purpurea*. C. B. Pin. 163. Purple, Meadow-Rattle. *Pedicularis quibusdam Crista Galli, flore rubro*. J. B. 3. 437. *Fistularia*. Dod. Pempt. 556.

The Flowers peep out of loose and smooth Vessels, as in the *Crista Galli vulgaris*, but not quite so flat, and channelled, and having only a little Red with much Green: They are of a red Colour, but rarely of a Flesh or white Colour, with the upper Jagg beaked, hiding in its Bosom four yellow Chives with a double Cavity, and a purplish Pointal; the under Jagg or Lip being cut deep into three little round Lappets. The Leaves bear some Resemblance to those of the *Filipendula*, but are much smaller, and cut into smaller Notches, of a Green or a Bay Colour, standing upon corner'd, hollow, weak Stalks, a hand-breadth, or nine Inches high. The Root is somewhat bitter, white, rugged, in Shape like the Root of *Stone-Parsley*, scarce so big as one's little Finger, and divided into pretty thick Fibres. Then from the upper Part of the Root rise broad, thick Leaves, ending in a Point, jagged round the Edges, out of whose Bosom spring up the other Leaves with the Stalk. Thus the first Leaves of the young Plant are so very like the *Dryopteris*, both in Shape and Jagges, that it might deceive a great many. But the Seed is dark or duskyish, and round, within large hooked Vessels, ending in Beaks.

It grows in great Plenty all over *England*, in Meadows, Pastures, Moors, and moist Places.

28. *Pedicularis pratensis, floribus candidis*. C. B. Pin. 163. Meadow-Rattle, with white Flowers. *Pedicularis quibusdam Crista Galli, flore albo*. J. B. 3. 437.

29. *Pedicularis palustris, rubra, elatior*. Raii. Hist. 770. Taller, red, Marsh-Rattle. An *pedicularia campestris* prior Species Tragi?

This is twice as large and tall as the *Pedicularis pratensis rubra vulgaris* of Parkinson, with firm upright Stalks; it differs from it in the Flower-Cup, which in this is rough, and not so turgid as in that, and even in the Seeds, as will appear to any one that pleases to compare them.

It grows in marshy and watery Places.

I reduce the *Alectorolophus tertius* of *Clusius* to this; for they agree in all the Marks; and *Clusius* gather'd it near *London*, where I am certain there is no other Species to be met with. Ray.

If we may believe *Tragus*, the Cattle eat this Herb among the rest of their Food, which breeds on them a vast Number of Lice; and which, he says, they are not to be cured of without great Danger.

30. *Pedicularis palustris, alba, elatior*. Raii. Synops. 162. Taller, white, Marsh-Rattle.

31. *Pedicularis Cretica, maritima, amplioribus foliis & floribus*. Maritime-Rattle of Crete, with larger Leaves and Flowers.

32. *Pedicularis Cretica, annua, minima, floribus vix conspicuis*. The smallest annual Rattle of Crete, with Flowers scarce discernible.

33. *Pedicularis Cretica, spicata, maxima, lutea*. The largest, yellow, Spiked-Rattle of Crete.

34. *Pedicularis orientalis, flore magno, flavescente, Asphodeli radice*. Oriental Rattle, with a large yellowish Flower, and a Root of *Asphodil*.

35. *Pedicularis orientalis, minima, flore albo*. The smallest oriental Rattle, with a whitish Flower.

36. *Pedicularis orientalis, supina, folio trifido, flore magno, flavescente*. Lying oriental Rattle, with a Leaf divided into three, and a large yellowish Flower.

37. *Pedicularis orientalis, annua, Psyllii folio, flore luteo*. Annual oriental Rattle, with a Fleawort Leaf, and a yellow Flower.

38. *Pedicularis orientalis, Asphodeli radice, flore longo, angusto & flavescente*. Oriental Rattle, with an *Asphodil* Root, and a long, narrow, yellowish Flower.

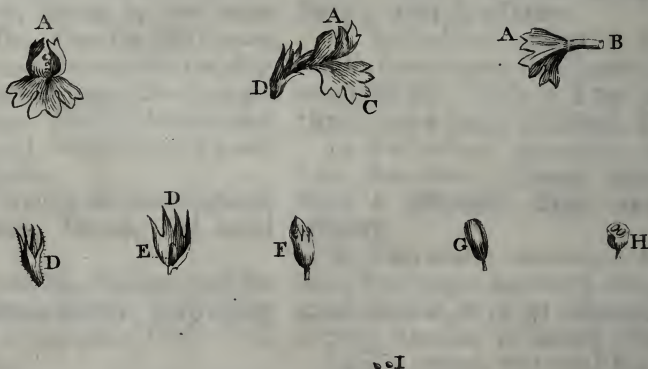
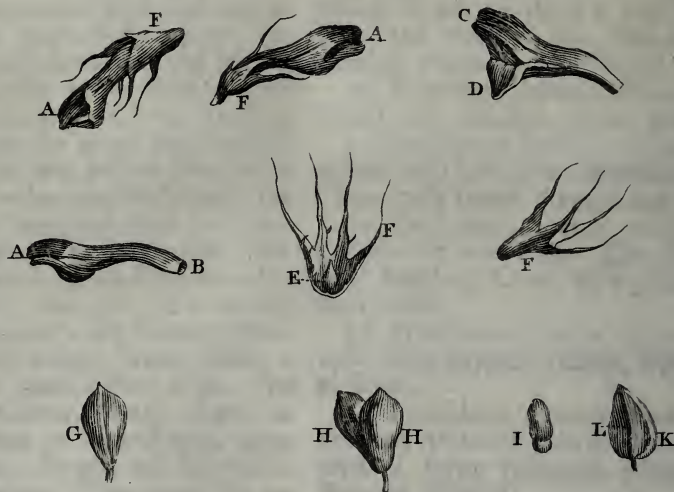
Lobelius writes, that this Plant is called *Pedicularis*, because of its poisonous Qualities, its infesting Meadows, and killing of Lice. On the other hand, *Dodoneus* Names it *Pedicularis* from the Effect, because the Cattle that feed in the Ground where it grows, breed Abundance of Lice. But Mr. Ray thinks it is so called, because the Wrinkles on the back of the Leaf are very like that Vermin. No Antient Author has so much as mentioned this Plant, nor given us any certain Marks;

Chlorophyllum is a green, branched, filamentous alga, which is found in fresh water, and is the most common of the green algae.



Chlorophyllum (H. Grunow)

Melampyrum. Cow-wheat.



Euphrasia. Eye-bright.

by which we can be assured they knew it.

The Virtues of it are not much celebrated, and very few Writers take any notice of it in this respect. It is said however to heal up *Fistula's* and hollow *Ulcers*, and to stop the *Flux* of Humours to them; and to abate the immoderate *Flux* of Women's Courses, if boiled in harsh or red Wine, especially the red Rattle. The yellow Rattle or *Cocks-Comb*, is accounted proper for such as are troubled with a Cough, or Dimness of Sight; in which Cases, the Herb must be boiled with Beans and some Honey, and then drank or dropped into the Eyes. The whole Seed being put into the Eye, draws away any Skin, Film, or Dimness, without any Pain. Some hold it to be of a cold and drying Quality.

TABLE LXXVIII.

GENUS V.

Melampyrum, Cow-wheat.

Cow-wheat, is a Plant with an anomalous, perfonated Flower of one single Leaf A, divided into two Lips, of which the upper C, is crested, and the under D, generally entire. Out of the Flower-Cup F, rises the Pointal E, fastened like a Nail to the hinder Part of the Flower B, which afterwards turns to a Fruit, or roundish Husk G, gaping in two Places HH, divided into two Cells K, by the intermediate Partition or Midriff L, and full of Seeds I, resembling the Grains of Wheat.

The Species of Cow-wheat are,

1. *Melampyrum purpurascens coma*. C. B. Pin. 234. Cow-wheat, with a purplish Bush or Top. *Melampyrum multis sive Triticum vacinum*. J. B. 3. 439. *Triticum vaccinum*. Dod. Pempt. 541. This is the *Melampyrum purpureum* of Gerarde; and the *Cratogeomom flore vario* of Parkinson. Common purple Cow-wheat.

It has a small ligneous Root, furnished with some like Fibres: From which rises a single Stalk, which is square, rough, purplish, and hollow with many Wings. The Leaves are placed at certain distances opposite to one another, some like those of *Toad-flax*, others

broad and deeply jagged, rough, and of a deep green Colour: But such as are upon the Top Bush grow thronger, are short, broader, divided as it were into Fingers, and Dyed with a gay Purple. Out of their Wings come crested, roughish Flowers, with a purple Helmet, a yellow Lip with a Mixture of Red, a Neck entirely Yellow, and the rest of the Pipe purplish; to which succeed two or three Seeds, lesser and blacker than Grains of Wheat, wrapped up in an oblong turgid Husk, which is divided into two Cells, with a membranous Cover ending in a short Beard or Awn.

It grows every where among the Corn in Foreign Countries: But is not, that I know, to be found in any Part of England. Ray.

Cow-wheat, says *J. Bauhinus*, has not, so far as I can learn, found any Room in Physick, but is generally neglected. *Clusius* says, that in the West of Friesland and Flanders, where it grows very plentifully, it Spoils their Bread, and makes it dark; and that those who eat of it, use to be troubled with Heaviness of the Head, in the same manner as if they had eaten Darnel or Cockle. I have often eat Bread with a little Tincture of this in it, but could never perceive that it gave it any disagreeable Taste, or that it was accounted the more unwholesome for that by the Countrey People, who never endeavour to separate it from their Corn. Nay, *Tabernamontanus* declares, that he has often eaten it without any Harm, and says, that it makes a very pleasant Bread. Ray.

It is a delicious Food for fattening of Oxen or Cows; so that it might not absurdly be called *Pabulum bovinum aut vaccinum*. J. B.

2. *Melampyrum luteum, latifolium*. C. B. Pin. 234. Broad-leaved yellow Cow-wheat. *Melampyrum Sylvaticum, flore luteo, sive Satureia lutea, Sylvestris*. J. B. 3. 441. *Milium Sylvaticum* i. *Asine Sylvatica* & *Milium Sylvaticum* ii. Tabern. Icon. 242. This is the *Cratogeomom vulgare* of Parkinson, and the *Cratogeomom album* of Gerarde.

It has the Roots of the *Melampyrum vulgatus segetum*, or the common Corn Cow-wheat, but generally more lank and scraggy; with Stalks nine Inches or a Yard high, square, somewhat rough, and divided into very long and thick-set Branches. The Leaves adhere close to the Joints in Couples; being

stained with a dark Purple, sometimes as broad as a Blade of Corn, and sometimes twice as broad, about two Inches long, of an unpleasant and somewhat biting Taste; the uppermost of which that are opposite to the Flowers, are jagged like the common Corn *Cow-wheat*. But the Flowers in Shape of a Pipe, are like those of the other *Melampyrum*, wholly yellow, more slightly, by Couples, and generally turning to one Side, out of Flower-Cups divided into four Parts; to which succeed flat Seed-vessels with a crooked Beak, containing three or four large oblong Seeds, resembling Grains of Wheat. I have sometimes observed in this Plant a blue or faint red Colour. *J. B.*

Caspar Bauhinus observes, that this Plant was graven thrice in the History of the Plants of *Lyons*. 1. Under the Name of *Græcogonum*. 2. By the Name of *Satureia lutea Dalechampi*. 3. By that of *Hyssopus nemorensis*, whose Figure does not answer to that of our *Melampyrum*; but instead of that, they repeated the Description of *Satureia lutea*.

It is to be found in Forests, and on the Sides of Woods, in Thickets, Hedges, and shady Places about the Roots of Oaks, and other old Trees, in almost all the Countries in *Europe*.

3. *Melampyrum cristatum*, flore albo & purpureo. *J. B.* 3. 440. Crested *Cow-wheat*, with a white and purple flower.

It derives its Nourishment from a small ligneous Root, which is sometimes single, and sometimes divided into several Parts. The Stalk is half a Foot high and better, sometimes taper, sometimes angular and very branchy, the Branches being even longer than the Stalk it self, generally opposite to one another, sometimes unequal in their Rise, clothed with Leaves of the *Melampyrum Sylvaticum flore luteo*, but longer and narrower, and generally two opposite to one another. The Flowers appear upon the Top of the Stalks and Branches, in thick square Spikes, being long, gaping, or crested, and generally purple with a yellow Yawn; and are succeeded by short Husks with sharp Points, like the Husks of the *Melampyrum Sylvaticum*. The Seeds are also alike. The Flower-Cup is short, with a Border cut into four Segments. Each of those Flowers and Husks are cherished in the Bosom of a Leaf

that doubles upwards, whose upper Edge represents the Figure of a half Moon, the Arch being curiously notched and crested with very small Teeth. The End of this Leaf runs into a long and narrow Point. Of those Leaves thus doubled and resting upon one another like Scales, is composed a Spike. They are generally Dyed with a purple Colour.

It grows plentifully in the Woods about *Cambridge* and *Bedford*. I have likewise observed it growing in Woods on the Mountains near *Geneva*. *Ray*.

We must exclude from this Genus the *Melampyrum luteum*, *minimum* of *C. B. Pin.* 234. because it is reckoned a Species of *Ranunculus*.

It is called *Melampyrum* from *μελεις*, *Triticum*, and *μύλας*, *niger*, because of the Shape and Colour of the Seed.

I don't find that this Genus is fam'd for any Medicinal Virtues, more than what we have related in the first Species; only *Lobel* says, it is proper for those that are cold, and that the Seed provokes to Venery.

TABLE LXXVIII.

GENUS VI.

Euphrasia, Eye-bright.

Eye-bright, is a Plant with an anomalous, perforated Flower of one single Leaf A, divided into two Lips, the upper one upright and parted into several Divisions, and the lower one C, divided into three Parts, each of which is again divided into two. Out of the Flower-Cup D, rises the Pointal E, fixed like a Nail into the hinder Part of the Flower B, which afterwards turns to a Fruit, or oblong Husk FG, divided into two Cells H, and full of small Seeds I.

The Species of Eye-bright are,

1. *Euphrasia officinarum*. *C. B. Pin.* 233. Common Eye-bright. *Euphrasia*. *J. B.* 3. 433. *Dod. Pempt.* 54.

It is a little Plant about a Span high, with a single Root, but distorted and turning backwards and forwards, furnished with a few pretty large Fibres, ligneous and white; with little taper, and somewhat rough Stalks, purplish

purplish at Top, branchy, with many small Branches coming forth out of the Wings of the Leaves, sometimes reaching above the Middle of the Stalk in length.

The Leaves grow in couples upon the Stalk opposite to one another, adhering without Foot-stalks, like those of the *Chamedrys*, or the *Alpine Chamedryfolia*, shining with a deep Green, wrinkled, dented, rough on the further Side, of a fat and bitterish Taste. The small Flowers come single out of the single Wings of the Leaves, resting upon Flower-Cups divided into four Parts, being very Beautiful and Milk-white, striped within with purple Lines, with a Lip divided into three Jaggs, each of which is again divided into two, and marked with a yellow Spot in the Middle. The Crest, which bends backwards, likewise conceals several *Stamina* or *Threads* divided into two. To the Flower succeeds the Seed-vessel, which is oblong, flat, bivalve, divided into two Cells, and contains within it several oblong Ash-colour'd Seeds.

2. *Euphrasia ramosa, pratensis, flore albo.* *Eyft.* Branchy, Meadow Eye-bright, with a white Flower.

3. *Euphrasia minus ramosa, flore ex cæruleo purpurascente.* *Eyft.* Eye-bright less branched, with a purple blue Flower.

4. *Euphrasia Alpina parva, luteis floribus.* *C. B. Pin.* 233. Little Mountain Eye-bright, with yellow Flowers. *Euphrasia lutea.* *Bocc. Mus. Part. 2. Tab. 60.*

5. *Euphrasia tenuissime dissecto folio, angusto.* *Bocc. Mus. Part. 2. Tab. 60.* Eye-bright, with a narrow Leaf cut into very small Jaggs.

The Species of *Eye-bright*, without Flowers and Fruit, are commonly known by their veiny and dented Leaves. They differ from *Cor-wheat* and *Rattle* in the Shape of their Flowers.

Dalechampsius says, that this Plant was called *Euphoron*, because it helps and comforts the Eyes; and that those who were Ignorant of the Greek Tongue corrupted it, and turn'd it to *Euphrasia*. But *J. Bauhinus* refutes him, and demonstrates, that this Plant is not to be met with, either among the Greek or Latin Writers.

The first Species here described, is mostly celebrated for its excellent Virtues in Phy-

sick. In whatever manner it is taken, whether beat to Powder, and drank with White-wine, or chewed and swallowed by it self without any Mixture, or the Juice of the Plant squeezed, or the distill'd Water, all, or any one of these wonderfully strengthen and enlarge the Sight, repair and restore a weak or a lost Sight. For an Inflammation or Dimness of the Eyes, the bruised Plant is applied, or the Juice of it is put into the Eyes, but especially the distill'd Water.

Caspar Hoffman says, that the Uncertainty of the Plant, makes the Use of it despicable; and that *Arnoldus* and others, restrain the Use of it to such as are fat and full of gross Humours. And with respect to Wine, *Pena* says, it had very ill Success with his Companion and Fellow-Labourer. Nor is this to be wonder'd at, says he, for it does not cure any sort of Dimness indifferently, but that which is caused by Coldness; and not all that neither, but only such as proceeds solely from Flegm, or Rheum: For the very Taste, continues he, which has a certain Bitterness in it, demonstrates the Plant to be hot and dry.

But if it conduces to remove the Dimness of the Eyes, it does not effect this by its Heat and Dryness (for many Things that are hot and dry are of no Service to the Eyes) but by a Subtilty of Parts, and a certain specific Property. Now that this Plant consists of subtle Parts is plain from hence, That *Tragus* found the Decoction of it in Wine drunk warm, to be a Sovereign Remedy in the Jaundice. And *Frederick Hoffman* says, it is an Ophthalmick Plant, of a sharp astringent Taste, and useful in the Suffusions and Dimness of the Eyes. He adds, That the *Euphrasia flore albo* boiled in Wine, and the Decoction drunk by the Patient, he found to be good in the *Yellow Jaundice*; which he says, he found out by chance, and that no one had observ'd this before him.

The distill'd Water, the Conserve, the Essence with Spirit of Wine are sold in the Shops, and the Infusion in Wine for common drink.

For a dim and confused Sight, Take half an Ounce of *Mace*, and two Ounces of *Eye-bright*. Make them into a very fine Powder. After the proper Evacuations, the Dose is two Ounces. *Maroldus* calls it, *Pulvis Docto-*

ris *Helidai*. *Dodonæus* adds, *Sugar* and *Fennel-Seed*. *Fuchsius*, commends it in *Suffusions* and *Cataracts*.

Fabricius Hildanus, a celebrated Author of great Credit, says, that the Virtue and Efficacy of *Eye-bright* is so great in Weakness of Sight, that he has observed some Men Seventy Years of Age, to have recovered their Sight in that decrepid Age by the Use of this, after they had lost it by much Study and Watching. *Dr. Tancred Robinson* observes, that those whom we call *Oculists*, both in *England* and in *Foreign Countries*, give this Plant to their Patients in *Sallads*, in *Broth*, baked in their *Bread*, and infus'd in their ordinary Drink; and that they apply it outwardly in *Eye-Salves* and *Fomentations*.

The Account which *Mr. Tournefort* gives of it in his *History of Plants about Paris* is this.

Eye-bright is very bitter, and reddens blue Paper a little: which makes us believe that *Sal Ammoniac*, tho' wrapt up in Abundance of Oil and Earth, does however prevail in this Plant. It resolves the Humours, renders them proper for circulating, and drawing along with them the Matter that causes the Obstruction. It is granted on all Hands, That it clears, strengthens, and even restores the Sight. The Dose commonly prescribed, is from one to three Drams in a Glass of *Fennel*, or *Vervain Water*. You may make a Conserve of it, or mix it with that of the Leaves of *Wormwood*. *Arnoldus de villa nova*, in his Treatise of Medicinal Wines, gives great Encomiums to that of *Eye-bright*. In the Time of Vintage they put this Plant in *Musi*, and drink it when it is become sufficiently clear. *Pena* and *Lobel* prefer the Use of it in Powder before the Wine. They affirm, that one of their Friends in *Switzerland*, who had a small Rheum in his Eyes, preserved his Sight from being lost, by drinking *Eye-bright Wine* for three Months.

TABLE LXXIX.

GENUS VII.

Polygala, Milk-wort.

Milk-wort, is a Plant with an anomalous, personated Flower of one single Leaf A, not perforated behind B, divided into two Lips before; the upper one A, is again divided into two, but the under one C, is curiously fringed. Out of the lower Part of the Flower rises the Pointal D, which afterwards turns to a broad Fruit E, with a double Gape F, divided into two Cells G, and full of oblong Seeds H; But the Fruit is generally enfolded in the Flower-Cup I, which is composed of five Leaves, viz. three very small ones, and two larger ones KL, which afterwards embrace the Fruit like Wings M.

The Species of Milk-wort are,

1. *Polygala major*. C. B. Pin. 215. The greater Milk-wort. *Polygala vulgaris, major*. J. B. 3. 387. *Polygala major, cerulea*. Tabern. Icon. 829.

This greater Kind shoots from the Root, five or six hard, slender and flexible Stalks, a Foot high or more, thick set with somewhat long and narrow Leaves, like those of *Dyers-weed*. The Flowers grow at the Top in a long Spike thick together, somewhat like those of *Fumitory*, but larger, and of a fine delicate reddish purple Colour, shining withal; after which follow flat Pouches, with two Seeds in them usually, which are long, blackish and hairy: The Root is hard and ligneous with Fibres at it, and endures long. This has been found to vary the Colour of the Flower, especially in shady and moist Places, becoming either blue, or white, or mixed, as the smaller Kind is.

2. *Polygala major, alba*. Tabern. Icon. 829. The greater white Milk-wort.

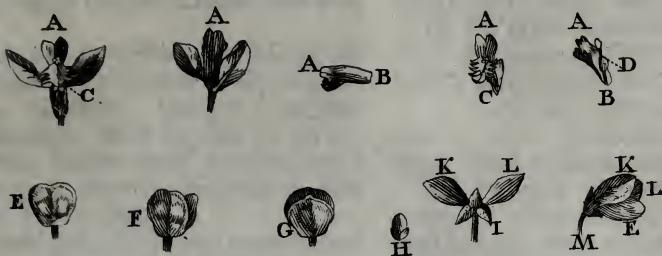
3. *Polygala major, purpurea*. Tabern. Icon. 830. The greater purple Milk-wort.

4. *Polygala vulgaris*. C. B. Pin. 215. Common Milk-wort. *Polygonum multis*. J. B. 3. 386. *Polygala cerulea*. Tabern. Icon. 831.

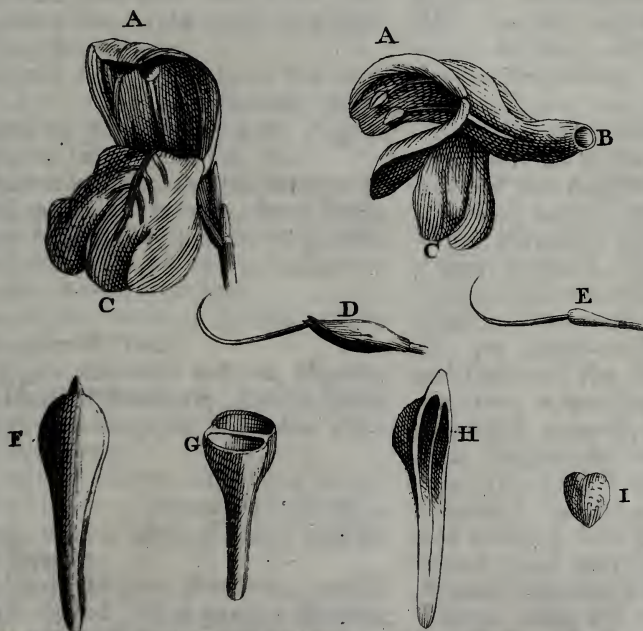
5. *Polygala alba*. Tabern. Icon. 831. White Milk-wort.

6. Poly-

Polygala. Milk-wort.



Adhatoda.





6. *Polygala purpurea*. Tabern. Icon. 831. Purple Milk-wort.

7. *Polygala acutioribus foliis*, Monspeliciaca. C. B. Pin. 215. Montpellier Milk-wort, with sharper Leaves. *Onobrychis tertia Dalechampii*. Lugd. 491.

8. *Polygala acutioribus foliis*, Monspeliciaca, floribus caeruleis. H. R. Monsp. Montpellier Milk-wort, with sharper Leaves and blue Flowers.

9. *Polygala annua*, erecta, angustifolia, floribus coloris obsoleti, carneis-lineis, virgatis. Bot. Monsp. Annual, upright, narrow-leav'd Milk-wort, with Leaves of an obsolete Colour, striped with flesh-coloured Lines. *Polygala vulgaris coloris obsoleti, foliis angustissimis*. J. B. 3. 388.

Dr. Sherrard gather'd a Plant upon Mount Madonna near Rome, which he suspects was the same with this, with narrow Leaves stretched out into long and sharp Points; with Flowers running into very long Spikes upon the Tops of the Stalks and Branches, with very small and short Foot-stalks, (no Leaves growing where they arose) and generally bending downwards.

10. *Polygala foliis lanceolatis, brevibus*. Bocc. Mus. Part. 2. 141. Milk-wort, with short Leaves in Form of a Lance. *Polygala brevis, lanceolato folio*. Ejusd. Tab. 99.

This Plant is upright, and has hardly ever more than one Stalk. It bears, short, sharp, lanceolated Leaves, which grow to it without Foot-stalks. The Flower is herbaceous. It never rises above a Span high.

It grows in the Fields of Brindisi, a City in the Kingdom of Naples.

11. *Polygala montana, minima, Myrtifolia*. The smallest Mountain, myrtle-leav'd Milk-wort. *Chamomyrsine quorundam Dalechampii*. Lugd. 1173.

12. *Polygala Lusitanica, frutescens, magno flore, foliis minimis*. Portuguese frutescent Milk-wort, with a large Flower, and very small Leaves.

13. *Polygala Africana, frutescens, angustifolia, major Oldenl.* The greater African, narrow-leav'd Milk-wort of Oldenland.

14. *Polygala Africana, Lini folio, magno flore. Oldenl.* African Milk-wort, with a flax Leaf, and a large Flower.

15. *Polygala Africana, frutescens, Buxi folio, maximo flore.* African frutescent Milk-

wort, with a Box Leaf, and a very large Flower.

16. *Polygala Cretica, vulgari similis, flore albido, longiore.* Milk-wort of Crete, like the common Milk-wort, with a pretty long whitish flower.

17. *Polygala orientalis, supina, myrtifolia, flore caeruleo.* Oriental, flat, myrtle-leav'd Milk-wort, with a blue Flower.

18. *Polygala orientalis, supina, myrtifolia, flore purpureo.* Oriental, flat, myrtle-leav'd Milk-wort, with a purple Flower.

19. *Polygala orientalis, Linifolia, flore magno, albo.* Flax-leav'd oriental Milk-wort, with a large purple Flower.

20. *Polygala orientalis, Linifolia, flore magno, purpureo.* Flax-leav'd oriental Milk-wort, with a large white Flower.

This Genus is called *Polygala* from πολλοῦ, multum, and γάλα Lac, as if it was a Plant that brought Abundance of Milk.

The Name *Polygala*, or *Polygalon*, says *Tragus*, is imposed on these Plants, upon supposal that they are the *Polygala* of *Dioscorides*; but they only resemble it, and are not really the same: and therefore *Lobel* calls it *Polygala Recentiorum*, as not judging it to be the true one of that Learned Antient. This *Gesner* had taken notice of before him, being convinced of the Disparity by the bitter Taste of our *Polygala*, and therefore called it *Amarella*; and yet according to the German Vulgar Name, he called it also *Crucis flos*. *Dodonæus*, *Clusius*, *Lobel*, and several others, following the current known Name, call it *Polygala*, as not knowing a fitter to name it by; yet *Anguillara* seems to call it *Thiesion*, and *Dodonæus*, *Flos Ambervalis*.

Gesner, as was said before, having called this Herb *Amarella*, by reason of its Bitterness, says, that he found it to purge Choler, having made the Trial of it upon himself, by steeping a Handful of it all Night in Wine, and drinking it in the Morning; and therefore it is not very likely to encrease Milk in Women's Breasts, neither bitter nor purging Things, being apt to work any such Effect; which is likewise a good Argument to prove, that it is not the *Polygala* of *Dioscorides*.

TABLE LXXIX.

GENUS VIII.

Adhatoda.

Adhatoda, is a Plant with an anomalous perforated Flower of one single Leaf A, divided into two Lips, the upper one A, being either crooked, or turning upwards, and bending down to the Bottom, but the under Lip C, is divided into three Parts. Out of the Flower-Cup D, rises the Pointal E, fixed like a Nail into the hinder Part of the Flower B, which afterwards turns to a Fruit, shap'd like a Batoon, or Club F, divided into two Cells G, by an intermediate Midriffe H, gaping two Ways, and full of Seeds that are generally flat, and as it were in the Shape of a Heart I.

The Species of Adhatoda are,

1. Adhatoda Zeylanensium. *H. L. Bat.*
The Adhatoda of Zeylan.

2. Adhatoda flore minori. Bem-curini. *H. Mal. Part. 2. 33.*

3. Adhatoda floris labio superiori angustissimo & ad posteriora reclinato. Adhatoda, with the upper Lip of the Flower very narrow, bending back towards the Bottom. *Carim-curini. H. Mal. Part. 31.*

4. Adhatoda herbacea, Circæ foliis, parvo fructu. Herby Adhatoda, with the Leaves of the Enchanters Night-shade, and a small Fruit.

This Plant is but lately, and but very little known to the Europeans.

TABLE LXXX.

GENUS IX.

Orobanche, Broom-Rape.

Broom-Rape, is a Plant with an anomalous, perforated Flower of one single Leaf A, split into two Lips, of which the upper one A, is crested, but the under one B, is divided into three Parts, the Pointal C, rises out of the Bottom of the Flower, and

afterwards turns to an oblong Fruit D, having but one Cell, gaping as it were into two Keels E, and full of Seeds F, which are generally very small.

The Species of Broom-Rape are,

1. Orobanche major, Garyophyllum olens. *C. B. Pin. 87.* The greater Broom-Rape, smelling like Clove Gilly-Flower. *Orobanche flore majore. J. B. 2. 782. Limodorum sive Orobanche. Dod. Pempt. 552.* This is the *Orobanche sive Rapum Genista* of Gerarde and Parkinson.

It rises half a Yard high and better, with an upright, rough, pale, or yellowish, or reddish, hollow Stalk; on which grow, not so much Leaves, as the Beginnings of Leaves, which are narrow, longish, or Thongs that quickly wither, thin-set, each of which stand under single Flowers. The Flowers grow like those of the *Orchis*, but at greater distances, like those of the *Melissa Fuchsii*, are large, very rough, of a Colour betwixt obsolete purple and pale, showing as if they yawn'd, out of which appear blackish *Chives*, standing upon white *Stamina* or *Tthreads*. The Lip which they drop is divided into three Jaggs or Lappets, and the Bottom of the Flower it self is wet with a Juice like Honey. The Root is bulbous, compacted of Folds, and does not shoot deep into the Earth. The Taste is very bitter, but the Smell not very unpleasant.

It grows frequently at the Roots of Broom, for which Reason it is commonly called *Rapum Genista*.

2. Orobanche major, foetidissima, silvæ Bononiensis. The greater stinking Broom-Rape, of the Forest of Bononia.

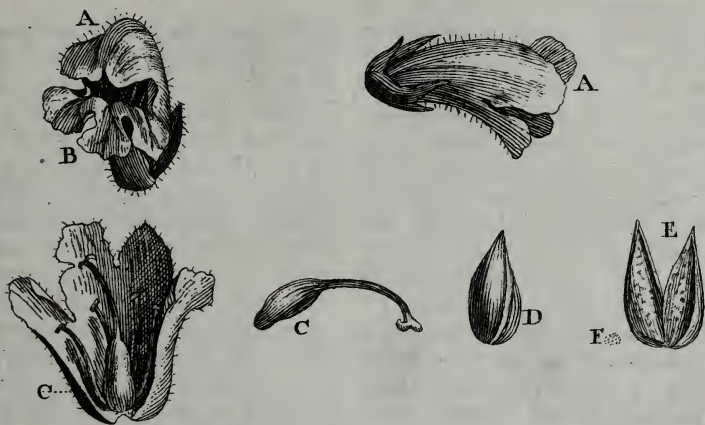
3. Orobanche Lusitanica, flore atropurpureo. Portuguese Broom-Rape, with a dark purple Flower.

4. Orobanche flore minore. *F. B. 2. 781.* Broom-Rape, with a small Flower.

5. Orobanche Subcæruleo flore sive ij. *Clus. Hist. 271.* Broom-Rape, with a blueish Flower.

6. Orobanche ramosa, floribus purpurascens. *C. B. Pin. 88.* Branched Broom-Rape, with purplish Flowers. *Orobanche minor, purpureis floribus, sive ramosa. J. B. 2. 781. Orobanche iij. Polyclonos. Clus. Hist. 271.*

Orobanche. Broom Rape.



The former of the two last has a thick, long and fibrous Root, a Stalk half a hand-breadth high, begirt with a few very short, thick and sharp Leaves, which is spent in five, six or more little naked Foot-stalks three Inches long, the Foot-stalks likewise rise out of the Wings of the Leaves, on the Top of which rests a dented Flower-Cup an Inch high, and out of every one rises a single Flower, of a blueish purple Colour, furnished with a long Foot-stalk, which is large, two Inches long, in Form of a Crest, and as it were Beaked, as in the *Alectorolophos*, out of which rises an oblong Filament, which bends backwards. What succeeds to the Flower does not appear.

Burser gathered it on the Pyrenean Mountains.

The latter has a branched Stalk; and often sends up several Stalks nine Inches high, and sometimes shorter, much slenderer than those of the *Orobanche vulgaris*, and stiffer, reddish, rough, divided again into Branches, Adorned only with some Vestiges of Leaves. The Flowers are spiked, smaller, purple, oblong, gaping, rising out of a Flower-Cup divided into many Parts, at every one of which stands a single sharp-pointed small Leaf. To these succeed turgid Heads full of a fine Dust. The Root is Tuberous, about the Size of an Hazel Nut, furnish'd with Shoots of Fibres. The Plant is somewhat bitter to the Taste.

I observ'd it first at *Ratisbon*, a City of Germany, among the Stubble, after the Corn was cut down, and afterwards in Italy, and the Western Parts of France. Ray.

7. *Orobanche ramosa*, floribus cæruleis. C. B. Pin. 88. Branched Broom-Rape, with blue Flowers.

8. *Orobanche ramosa*, floribus subpallidis. C. B. Pin. 88. Branched Broom-Rape, with paleish Flowers.

9. *Orobanche Cretica*, altissima, flore par-

vo, densissimo, ex albo & subcæruleo variegato. The tallest Broom-Rape of Crete, with a small, very thick-set Flower, variegated with a white and greenish Colour.

10. *Orobanche Cretica*, non ramosa, caule tenui, flore parvo, subcæruleo. Broom-Rape of Crete, not branched, with a slender Stalk, and a small blueish Flower.

This Plant is called *Orobanche*, quasi *Orobi angina*, from the Greek Words *οροβον εσχη*, because it choaks the *Orobis* and *Vetches*, and the other Pulse among which it grows. It does not much differ from the *Orobanche* of *Theophrastus*, which with its clasping Branches kills the *Orobis*; and therefore *Lugdunensis* takes that Pulse which is called *Aphaca*, to be the *Orobanche* of *Theophrastus*. But without all doubt it agrees with the *Limodorum* of *Theophrastus*, as some have it, but more truly *Hemodorum*. Some would have it *Limodorum*, quasi *pratorum donum*, or else *Limodorum*, quasi *famem afferens*; but *Haimodorum* is the truest Reading. For *Theophrastus* describes his *Hemodorum*, almost in the same manner that *Dioscorides* does his *Orobanche*. It is thought also to be *Pliny's Cynomorion*, a canini genitalis similitudine.

Dioscorides says, that in his Time it was used to be eaten, either raw or boiled with Pulse, in order to help the Digestion. *Galen* says, it is cold and dry in the first Degree. Our People do often use the Plant which is called *Orobanche dentata minor*, in Medicines for the Lungs, having received it as a certain Tradition from their Ancestors, and therefore call it *Lung-wort*.

The Herb dried and beaten to Powder, is a present Remedy for the Pains of the Cholick. The Plant candied, or the Syrup, is a Sovereign Remedy against *Splenetic* and *Hypochondriack* Passions. It is applied externally to soften hard schirrhus Tumours. D. Bowle.

S E C T. V.

T A B L E LXXX, and LXXXI.

G E N U S I.

Acanthus. Brank-Ursine, or Bears-breech.

Br~~ank~~-U~~rsine~~, is a Plant with an anomalous Flower of one single Leaf A, whose Forepart A, is divided into three Parts, but the hinder Part B, ends in a Ring, the *Stamina* or *Threads*, supplying the Place of the upper Lip C, and supporting the *Chives* D, which resemble a Broom or Bescm. Out of the Flower-Cup K, rises the Pointal E, fixed like a Nail into the hinder Part of the Flower B, which afterwards turns to a Fruit in Shape of a Walnut FG, wrapt up in the Flower-Cup divided into two Cells HI, by an intermediate Midriffe or Partition L, and full of Seeds M, which are generally gibbous.

The Species of Brank-Ursine are;

1. *Acanthus sativus vel mollis Virgilii. C. B. Pin. 383.* The Garden gentle, or manured Brank-Ursine of Virgil. *Carduus Acanthus sive Branca-Ursina. J. B. 3. 75. Acanthus sativus. Dod. Pempt. 719.*

This gentle Thistle (as it is accounted) shoots forth many very large, thick, smooth, dark green Leaves upon the Ground, with a thick Middle-Rib, and parted into several deep Gashes on the Edges; from among which, after it hath stood long in a convenient Place, rises a pretty big Stalk, three or four Foot high, without either Joint, Branch, or Leaf upon it, but only from the Middle upwards, set with a Spike, as it were of white hooded or gaping Flowers standing in brownish Husks, somewhat sharp at the Points, and a small long undivided Leaf under each Flower. After which, come in the hotter Countries (but not in ours as I can learn) broad, flat, round, thick, brownish Seeds. The Roots are many, great, thick, and long Strings,

spreading far and deep into the Ground, of a darkish Colour on the outside, and whitish within, very clammy; so full of Life, that a small Piece left in the Ground, will spring up again, but will require Shelter or Defence from the Extremity of the Winter Weather.

It grows copiously in the Southern Parts of Italy, about *Baie* and *Naples*, and in the Island of *Sicily*. *J. Bauhinus*, who has seen it, says, that the Seed is plain, broad, round, thick, and of a nasty yellow Colour.

2. *Acanthus aculeatus. C. B. Pin. 383.* Prickly Brank-Ursine. *Carduus Acanthus, sive Branca ursina spinosa. J. B. 3. 75. Acanthus Sylvestris. Dod. Pempt. 719.*

This wild Brank-Ursine has a Stalk pointed at Top, begirt with Flowers; and resembles the Garden Brank-Ursine, both in the Colour and Appearance of the Flowers, and in the Seed, tho' it is shorter and lower. The Leaves are likewise large, and cut into many Jaggs, but not at all smooth; but guarded round the Edges with thick-set, sharp and hard Prickles.

3. *Acanthus rarioribus & brevioribus aculeis munitus.* Brank-Ursine, guarded with fewer and shorter Prickles. *Acanthus Sylvestris, mitioribus spinis. Almag. Bot.*

4. *Acanthus Orientalis, humillimus, foliis pinnatis, aculeatis.* Very low oriental Brank-Ursine, with winged and prickly Leaves.

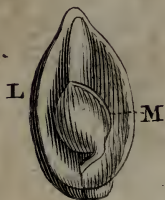
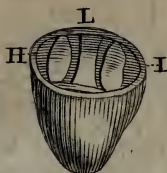
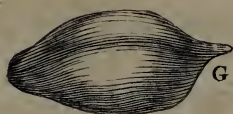
The *Acanthus* may be known by the Form of its Leaves, even when it is not in Flower: And this is so beautiful, that it uses to be engraven and cut upon the Capitals of Pillars. See *Vitruv. Lib. 4. Cap. 1.*

There is a noble Fable, That a beautiful Youth, named *Acanthus*, was turned into a Flower

Acanthus . Brank-Ursine.



Acanthus. Brank Ursine.





Flower of his own Name ; whom the *Greeks*, as *Kyberus* supposes, call *Pæderota*, from the Love of Boys. Nor is it without Reason, that the *Greeks* call this Plant *Melamphyllon*, from the deep green Colour of its Leaves.

It is likewise called *Branca-Ursina*, from the Resemblance which the Leaves bear to the Fore-parts of a Bear: For *Brancha* or *Branca* in *Italian*, seems to be a Corruption of the *Latin* Word *Brachium* the Arm; and as the *Italians* call it *Branca-Ursina*, so we after them call it *Branch*, or *Brank-Ursine*. But then how we come to call it *Bears-Breech*, I confess, I cannot account for.

The Antient Architects were wont to cut the Figure of these Leaves, by reason of their Elegancy and Beauty, upon the Capitals of Pillars erected by them. The Antient Architects, says *Vitruvius*, Crowned the *Corinthian* Pillars with Leaves and Branches of the *Acanthus*. They likewise wove the Figure of the Leaves of this Plant into their precious Garments, or embroider'd them with a Needle; which gave occasion for *Virgil* to say,

Et circumtextum croceo velamen Acantho.

But whether the *Branca-Ursina vulgaris*, be the true *Acanthus* of the Antients, may be justly doubted, because *Pliny* makes the *Acanthus* to be *herba topiaria*, i. e. a Plant proper to be

cut out into Figures, whereas the *Branca-Ursina*, is not fit for any such Purposes; for it cannot be cut into what Shapes one pleases; nor can it be formed into the Figures of Animals, or other such like Forms. On the other Hand, the Description of *Acanthus* given by *Dioscorides*, perfectly agrees to the *Branca-Ursina*. You may for further Satisfaction, consult *Jo. Bod. à Stapel. Comment. in Theophrast. Hist. Lib. 4. Cap. 3. p. 308.*

This is one of the five emollient Plants, which are *Malva*, *Althæa*, *Violaria*, *Mercurialis*, *Branca-Ursina*. It is mostly used externally in Glysters and other Paregoricks, or Mollifying Medicines in all Forms whatsoever, but most usually in *Cataplasms*. *Dioscorides* says, that the Roots applied in a *Cataplasma*, are very good in Burning and Dislocations. If drunk, they provoke Urine, and stop a Looseness: Bruised and warmed, they are of good Use for such as have a warm Gout, if the Parts affected be anointed with them. They help such as are Consumptive, Spit Blood, have fallen from a high Place, or such as are hurt by any Blow or Strain above their Strength, or lastly, such as are Bursten or Convulsed, no less than the Roots of the greater *Comfrey*, to which they have a near Resemblance both in Substance, Quality, and clammy Sap.

The Fourth CLASS.

Of Herbs and Under-shrubs,

With a Labiated or Lipped Flower of one single Leaf.

A Lipped Flower is a Flower with one single Leaf, which below becomes narrow like a Pipe, but above extends it self into a single or double Lip. It is peculiar to this Flower. 1. That it have a Flower-Cup of one Leaf. 2. That its Pointal, to which adhere four Embrio's, turn to a Fruit consisting of four Seeds, ripening in the Flower-Cup it self, as in a proper Husk or Shell; by which Mark it is distinguished

from the personated Flower, whose Pointal turns to a Husk or Cover very different from the Flower-Cup. Besides, the Labiated Flower differs from the Wheeled or Funnel-like Flower, to which succeed four Seeds (such as are those of *Echium*, *Bugloss*, *Symphyt.*) in that the Lips of the labiated Flower have a Gape or Yawn, i. e. a Form or Appearance resembling a Vizard or Mask, or the Snout of Animals.

S E C T. I.

*Of Plants with a Labiated or Lipped Flower of one single Leaf,
whose upper Lip is Crested or Hooked.*

TABLE LXXXII.

GENUS I.

Phlomis, Mullein.

Phlomis, which is a Sort of *Mullein*, is a Plant with a labiated Flower of one single Leaf, whose upper Lip A, which is crested, does wholly rest upon the under Lip H, which is divided into three Parts, and sticks a little out. Out of the Flower-Cup C, rises the Pointal D, fixed like a Nail into the hinder Part of the Flower B, accompanied as it were with four Embryo's, which

afterwards turn to so many oblong Seeds F; shut up in a Husk G, or a pentagonal Tube, which was before the Flower-Cup.

The Species of this Plant are;

1. *Phlomis fruticosa*, *Salviæ folio latiore & rotundiore*. Shrub-Mullein, with a broader and rounder Leaf than that of *Sage*. *Verbascum latifolia Salviæ foliis*. C. B. Pin. 240. *Verbascum* iv. five *Sylvestre Matthioli*. 1146.

It grows up with many square, hoary and ligneous Stalks; upon which grow, at certain distances, wrinkled, hoary and broad Leaves with roundish Points, very like the Leaves of the greater *Sage*, but larger. The Flowers are wherled, growing in Heaps, especially on the

Fig. 1.

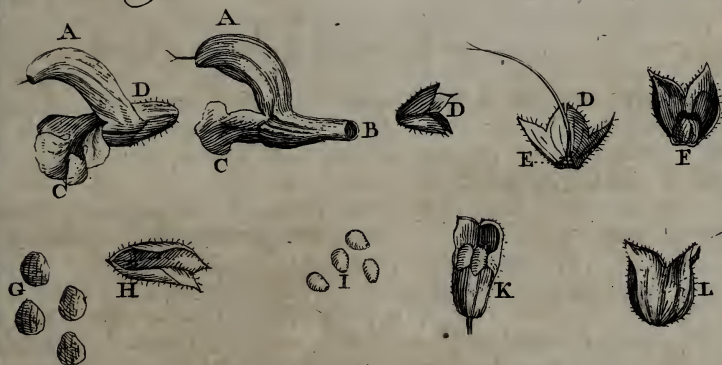


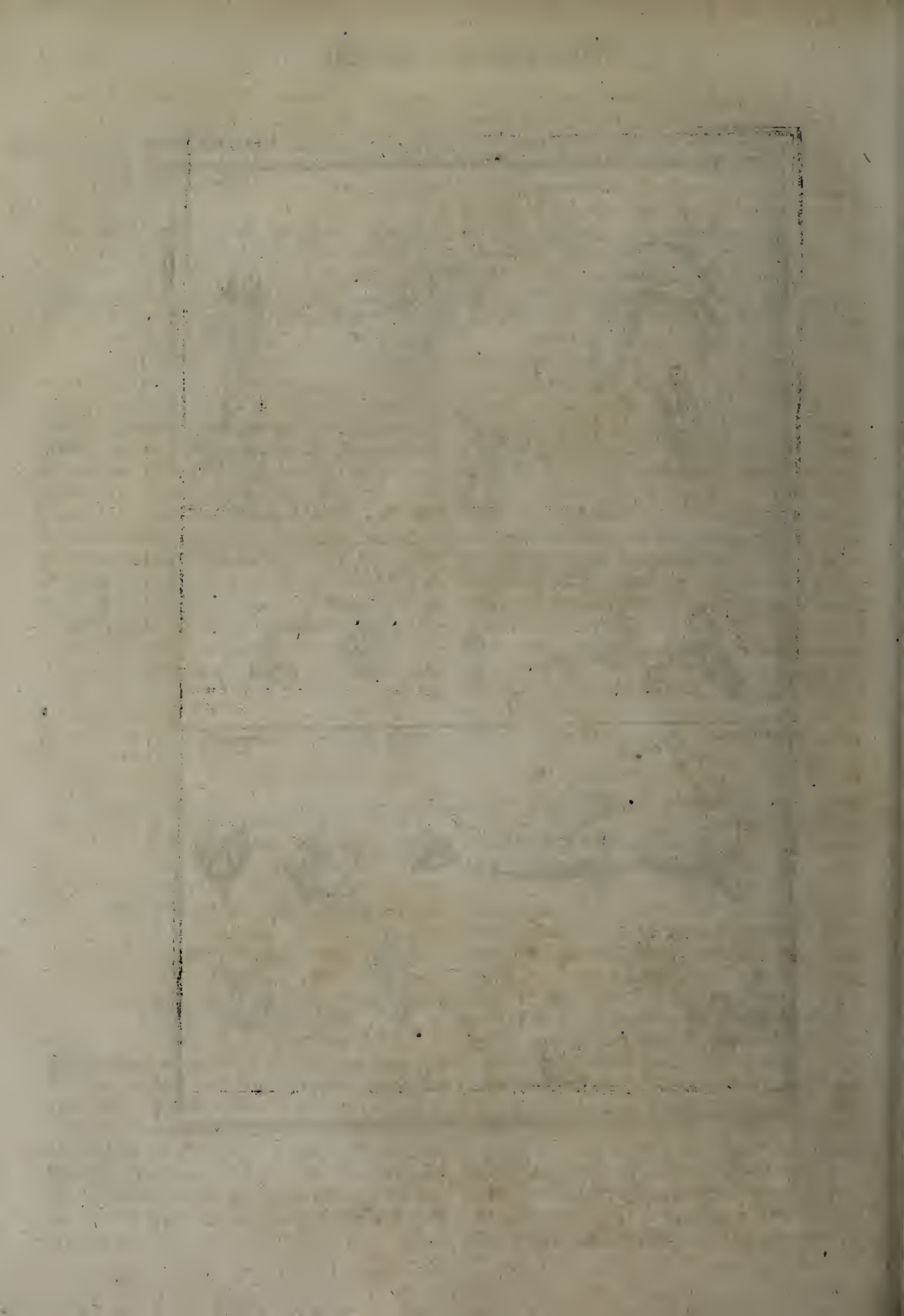
Tab. 83. Fig. 2.



Tab. 84.

Fig. 3.





the Tops of the Stalks, pretty much like the Flowers of *Sage* in Shape, but of a different Colour, viz. Yellow, the Seeds are larger than those of *Sage*; The Root, which is ligneous, shoots down into the Earth with many Fibres. It has a pretty strong Smell; *Parkinson* says, it has a heavy Smell affecting the Head; tho' I cannot perceive it to be unpleasant. *Ray*.

2. *Phlomis fruticosa*, *Salvia folio longiore & angustiore*. Shrub-Mullein, with a longer and narrower Leaf than that of *Sage*. *Verbasum* 4. *Matthioli*. Lob. Icon. 560.

3. *Phlomis fruticosa*, flore purpureo, foliis rotundioribus. Shrub-Mullein, with a purple Flower, and roundish Leaves. *Salvia fruticosa*, *Cisti folio*, haud incano, floribus purpureis. Pluck. Phytog. Tab. 57. Fig. 6. *Verbasum subrotundo Salvia folio*. C. B. Pin. 240.

This Species has rounder, thicker set and whiter Leaves than *Sage*, but not quite so hoary with Down: Otherwise it is very like *Sage* in its ligneous and fibrous Root, in the Stalk and Shew of the Plant; it loves the same Birth Place of *Syria*, as the *Verbasum Lychnites Syriacum*. *Lobel*, who describes it, did not see the Flowers, because he says, they were already withered. But *Parkinson*, by what Information I know not, attributes to it, and paints it with yellow Flowers composed of five roundish Leaves.

4. *Phlomis fruticosa*, *Lusitanica*, flore purpurascens, foliis acutioribus. Shrub-Mullein, with a purplish Flower, and sharp-pointed Leaves. *Verbasum Salvia folio*, flore rubro, *Lusitanicum*. V. Lusit. *Verbasum latis Salvia foliis alterum*, flore rubello. H. R. Par.

5. *Phlomis Narbonensis*, *Hormini folio*, flore purpurascens. Mullein of *Narbonne*, with a Clary Leaf, and a purplish Flower. *Marrubium nigrum*, *longifolium*. C. B. Pin. 230. *Herba venti Monspelienfis*. J. B. 3. App. 854. *Herba venti*. Lob. Icon. 532.

6. *Phlomis Hispanica*, *fruticosa*, candidissima, flore ferrugineo. The whitest Spanish Shrub-Mullein, with an Iron-colour'd Flower. *Stachys fruticans*, *latifolia*, *tomentosa*, flore ferrugineo. Barr. Icon.

7. *Phlomis Hispanica*, candidissima, herbacea. The whitest herby Spanish Mullein.

8. *Phlomis Lychnitis*. Clus. Hist. 27. *Verbasum angustis Salvia foliis*. C. B. Pin. 240.

Verbasum Sylvestre, *Monspelienfe*, flore luteo, biance. J. B. 3. 307. This is the *Salvia fruticosa lutea angustifolia*, five *Phlomis Lychnitis Dioscoridis Clusio* of *Parkinson*, and the *Verbasum Salvisolium* of *Alpinus* in his *Plant. Exot.*

It produces pretty thick Leaves lying upon the Surface of the Ground, very much like the Leaves of the *Salvia tenuifolia*, but longer and narrower, hoary, cover'd quite over on the under Side, with a thick and almost white Down. Among these grow up Stalks generally nine Inches high, sometimes a little higher, quadrangular, hairy and whitish, out of whose Joints grow longish Leaves like the former. The Tops of the Flower-Cups are shorter, and the Bottoms grow pretty broad. The Flowers are like those of *Lamium*, of a yellow Colour, and come forth from a thick Down, and as it were certain pale Hairs, round the Tops of the Stalks, in the Form of Wherles; the Tops of the Stalks generally bending and nodding. The Root is blackish and ligneous.

It grows on the craggy Hills about *Montpelier*. *Clusius* says, it grows upon Hills, and in dry and Stony Places, all over *Spain* and *Portugal*.

It Flowers in *May* and *June*; and bears a reddish Seed enclosed in the Flower-Cup.

9. *Phlomis Samia*, herbacea, *Lunaria folio*. Herby Samian Mullein, with a Moonwort Leaf.

10. *Phlomis orientalis*, foliis laciniatis. Oriental Mullein, with jagged Leaves.

11. *Phlomis orientalis*, *Hormini folio*, flore minore, calyce glabro. Oriental Mullein, with a Clary Leaf, a small Flower, and a smooth Flower-Cup.

12. *Phlomis orientalis*, angusto, & longiore folio, flore luteo. Oriental Mullein, with a narrow longish Leaf, and a yellow Flower.

This Plant is called *Phlomis*, from φλέγω *uro*, and φλῆξ φλόγος *flamma*, because it served for a Wick to put into Lamps to burn. The *Latins* called it *Candela Regia*, and *Candelaria*, because they used the Stalks dipped in Suet to burn, either at Funerals, or on other Occasions: And the *English* name it *Hightaper* for *Hightaper*, and use it in the same manner as a Taper or Torch.

The Physical Virtues are set forth under the Head of *Verbascum*, which it would be superfluous to repeat again here.

TABLE LXXXIII.

GENUS II.

Horminum, Clary.

Horminum or Clary, is a Plant with a labiated Flower of one single Leaf, whose upper Lip A, is little and crested, but the under one C, divided into three Parts, with the Middle hollow like a Spoon. Out of the Flower-Cup D, rises the Pointal E, fixed like a Nail in the hinder Part of the Flower B, and attended with four Embryo's, which afterwards turn to so many roundish Seeds F, enclosed or shut up in the Husk G, which before was the Flower-Cup.

The Species of this Plant are,

1. *Horminum coma purpureo-violacea*. *J.B.* 3. 309. Clary, with a purple-violet Bush. *Horminum sativum*. *C. B. Pin.* 238. *Horminum*. *Dod. Pempt.* 294. This is the *Horminum sativum genuinum Dioscoridis* of *Parkinson*.

It bears a great Resemblance to *Sage*: The Stalks are reddish, hollow with many Wings, square, rough with much Down, a Foot high and better. The Leaves are placed at the joints, and are not so shrivelled and unsightly as those of *Sage*, but very rough, of a tolerable good Smell, and a bitterish Taste. At the Tops of the Stalks stands a great Collection of Leaves in Rows under one another, the lowermost paler than the uppermost, and seem afar off to be Flowers, but nearer discerned, are seen to be only the Tops of the Leaves; the Flowers coming out under them at certain Spaces about the Stalks, of a whitish purple Colour, smaller than any of the other Sorts of *Clary*, standing in brownish purple Husks, which after the Flowers are past, while the Seed ripens, turn themselves downwards; whereby the Seed is lost, if it is not gathered in due Time. The Root is small and perishes every Year, requiring to be new planted in the Spring, for it seldom comes of the Seed that it shed; because generally the Winter and Frosts kill it.

It grows plentifully about *Siena*, but more copiously still in *Apulia*, *Illyricum*, in the Island *Lefena*, and all over *Greece*.

2. *Horminum coma rubra*. *J. B.* 3. 309. Clary, with a red Bush.

This is much like the former, with quadrangular rough Stalks. The first Leaves stand upon long Foot-stalks much resembling *Sage* Leaves, and have Wherles round the Stalks. But it differs from the former in its Flowers, which are lesser, and in the red Tops of the Stalks, and likewise in having no remarkable Smell.

This Plant grew up to me at *Cambridge* from Seed, which I got at *London*; which I described many Years after, as it rose from the Seed, with a Bush, however not at all red, and took it for a different Species. *Ray*.

The Description is thus: The lowermost Leaves which rise from the Root, come very near *Sage* Leaves, both in Shape and Size, unless that they are blunter; they rest upon long Foot-stalks, and are snipped round the Edges, rough and wrinkled. Several Stalks rise from the same Root, being a Foot or half a Yard high, square, rough, and branched towards the Bottom, being begirt with small triangular Leaves, adhering to the Stalks without Foot-stalks, like those that grow under the Wherles of Flowers in the former Sort: For they receive and support certain Wherles of Flowers or Vessels. But the Wherles of Flowers grow at considerable distances from one another, each of them being composed of small crested Flowers, out of oblong, striped Flower-Cups, divided into five Parts, which bend back downwards when the Flowers fall, and swell into a Belly when they are ripe, but do not gape. At the Side of each triangular Leaf, there is a long narrow Lathe under the Flower, so that there are as many triangular Leaves with their Lathes, as there are Flowers. The Seeds, both in Colour and Shape, are like the Seeds of common Garden *Clary*, but much smaller.

The Description of *Horminum minus supinum Creticum*. *Clus.* agrees almost in every Thing with ours; so that I suspect it is the same Plant. They differ only in the Colour of the Flower.

3. *Horminum Sylvestre, latifolium, verticillatum*. *C. B. Pin.* 238. Wild, broad-leaved, Wherled Clary. *Gallitricco affinis Planta.*

Planta. Horminum Sylvestre, latifolium Clusio. J. B. 3. 314. *Horminum Sylvestre* iij. Clus. Hist. xxix. This is the *Horminum Germanicum humile* of Parkinson.

From a Root about an Inch long, furnished with very long Fibres, from whence arise several Heads, it sends up staggering square Stalks, full of white Pith, extremely rough, such as are the Leaves, like those of *Horehound*, roundish, quickly ending in a small Point, rugged, and hooked at the Juncture of the Foot-stalk, which is an Inch, or an Inch and a half long: But the Foot-stalks of the lower Leaves are much longer. At the Place where the Leaves rise, there are certain Auricles, which grow like Undergrowth, sometimes one, and sometimes two. The Leaves on the Top of the Stalk, which is often Red, being Placed at small distances from one another, in short and few Wings, which are also red, growing in Wherles without the Interposition of any Leaves, do form the Spike; being very numerous, like those of the dead Nettle, small, of a blueish purple Colour, with a little Hood hiding a white *Chive*, and a Lip divided into two Lappets, shewing themselves out of little oblong, reddish, rough, and striped Flower-Cups, with dark purple rough Foot-stalks. Upon the falling of the Flowers, there remain in the Flower-Cups oblong, roundish Seeds. The Plant has no remarkable Taste.

4. *Horminum coma viridi.* Clary, with a green Bush. *Horminum sativum alterum, foliis totis viridibus.* H. R. Par.

5. *Horminum napi folio.* Morif. H. Bles. Turnip-leav'd Clary.

6. *Hominum minus, folio sinuato, flore minore, dilute cæruleo.* Morif. Hort. Reg. Bles. The lesser Clary with a snipped Leaf, and a small Flower of a light blue Colour. *Horminum Verbena laciniis, angustifolium.* Triumph. 66.

The Root is ligneous, white, scarce the Length of one's Finger, rarely divided into more Parts, but always furnished with a great many Fibres, and covered with a dark wrinkled Bark or Skin, sending up a vast Number of Leaves of various Forms lying upon the Ground. For some of them being more deeply cut, very much resemble the Leaves of the common *Vervain*, unless that they are more roundish at the Point; others are not

only cut but dented; while others again are only notched round the Edges. They vary likewise both as to Length and Breadth, tho' at the uttermost they never exceed an Inch in breadth, or two Inches in length. The Foot-stalk upon which they rest is oblong and flat, with a Rib stretched all along the Back of the Leaf to the Point, and subdivided into small Nerves running the whole length of the Leaf. The Substance of these Leaves is not thick, but smooth; nay, if you examine them with a *Microscope*, you will see in them such a Crispness as is in Cole; the Colour a dark Green, no Smell, but if long chewed, it gives an odd Sort of a sweet Taste. Out of the Center of the Leaves rise two or more Stalks, which are, upright, ligneous, square, from the thin-set Knots of which grow out two Leaves furnished with Foot-stalks (excepting however the uppermost,) sometimes broader, and withal shorter than those at the Root, and sometimes longer and narrower than they. Next the Root they are smooth, towards the Top they are full of fine thick Hair, especially where the Flowers break forth, which show themselves large, crested, disposed after the manner of Wherles into a straight oblong Spike, and of a deep Colour, out of a gaping Flower-Cup, in which they were at first shut up; To which succeeds a Bay Seed, smaller than the rest of this Species.

N. B. The Tops of the Stalks, as well as the Flowers and their Flower-Cups, breathe a fragrant Smell like *Penny-royal*.

This Plant flowers the whole Year, as well Winter as Summer, in the dry and sandy Grounds about Rome.

7. *Horminum pratense, flore minimo.* Schol. Bot. 68. Meadow Clary, with a very small flower.

8. *Horminum Sylvestre, Lavendulæ flore.* C. B. Pin. 239. *Gallitricis affine Maru, si non genus aliquod, Sclarea Hispanica Tabernemontani.* J. B. 3. 313. *Sclarea Hispanica.* Tabern. Icon. 374. This is the *Hormini Sylvestris quarta quinta* Species of *Clusius*. Common English wild Clary.

It is not unlike the *Gallitricum*, with a small red flower; for it has Stalks as high, square, begirt with Knots, and beset with certain Hair: And the Leaves at each Knot are alike, but somewhat harder, smother, narrower, somewhat

somewhat angular, with a blunter Point, and furnished with thinner Teeth, especially those that grow near the Root. From the little Shoots or Twigs growing upon the Top of the Stalk, and the topmost Branches in the Form of Whorles, and ending as it were in a Spike, spring forth Flowers, much smaller than the other Species, very much resembling the Flowers of *Lavender*, and not much differing from them in Colour. When they decay, they are succeeded by a black Seed. It has a Root like the rest, and the whole Plant smells entirely like the others.

This is that Species of *Clary*, which grows wild in almost all the Counties of *England*: altho' our *Botanists* write, That the *Horminum Sylvestre vulgare seu pratense foliis serratis* C. B. grows every where in this Country; because by Mistake, they took this Species for the *Horminum pratense foliis serratis* C. B. *Clusius* says, he found it near *London* at *Greenwich*, near the High-way, where it is certain there is no other Species, but the *Horminum Sylvestre vulgare* of *Gerarde* and *Parkinson*.

9. *Horminum spicatum*, *Lavendulae* flore & odore. *Bocc. Rarior. Plant.* 48. Spiked *Clary*, with the flower and Smell of *Lavender*.

10. *Horminum orientale, annum, sativo simile, coma carens; flore violaceo.* Oriental annual *Clary*, like the *Garden Clary*, wanting a Bush, with a violet-colour'd flower.

11. *Horminum orientale, Betonicae folio angustiore & inodoro.* Oriental *Clary*, with a *Betony* Leaf, but narrower and without Smell.

12. *Horminum orientale, latifolium, glutinosum, flore partim albo, partim purpurascens.* Broad-leav'd, glutinous oriental *Clary*, with a flower partly white, and partly purplish.

13. *Horminum orientale, latifolium, glutinosum, flore albo.* Broad-leav'd, glutinous *Clary*, with a white flower.

14. *Horminum orientale, Betonicae folio acutissimo, flore caeruleo.* Oriental *Clary*, with a very sharp-pointed *Betony* Leaf, and a blue flower.

15. *Horminum orientale, Lamii folio.* Oriental *Clary*, with a dead *Pettit* Leaf.

16. *Horminum orientale, Betonicae folio acutissimo, flore albo.* Oriental *Clary*, with

a very sharp-pointed *Betony* Leaf, and a white flower.

17. *Horminum orientale, foliis rugosis & verrucosis, angustis, flore albo.* Oriental *Clary*, with narrow Leaves full of *Wrinkles* and *Barts*, and a white flower.

18. *Horminum orientale, foliis Sclareae, flore albo, parvo.* Oriental *Clary*, with the Leaves of *Sclarea*, and a small white flower.

This Genus of Plants is called in *Greek* *ὀφύλινον*, because *περὶ τὴ συνουσίαν παρρημῶν*, it stimulates or provokes to *Venery*; as *Dioscorides* saith. And *Gaza*, that translated *Theophrastus* into *Latin*, translates this Word by *Geminalis*, as if by its Fruitfulness it caused Twins to be Born. We call it in *English* *Clary*, from *Scarlea*, or *Sclarea*, which *Anguil-lara* says, is so called by the *Ethiopians*, and is always taken for our ordinary *Garden Clary*, quasi clear-Eye.

The first Species is most used in *Physick*, because it is supposed to be the genuine *Horminum* of *Dioscorides*, as also because it discovers its Virtue by its Smell, more than any of the rest. The Seed of this, as well as of our *Garden Clary*, is wont to be put into the Eyes, to clear them from any Motes, as also to cleanse them from white and red Spots. The Mucilage of the Seed of either Sort made with Water, or applied to Tumours or Swellings, disperses and takes them away; and likewise draws forth Splinters, Thorns, or any such like Thing got into the Flesh. The Leaves used with Vinegar, either by it self, or with a little Honey, eases Inflammations, as also Boils, Felons, and the hot Inflammations caused by them, if it be applied before they are grown too big. The Powder of the Leaves dried put into the Nose provokes Sneezing, and thereby Purges the Head and Brain of much Rheum and Corruption. Either the Seed or Leaves taken in Wine, provokes to *Venery*. It is much in Use both with Men and Women that have weak Backs, to help to strengthen the Reins, either used by it self, or with other Herbs that conduce to the same Effect; and in *Tansies* often, or the fresh Leaves fried with Butter, being first dipped in a Batter of Flower, with Eggs and a little Milk, or any other way prepared, that is most agreeable to the Palate, viz, by squeezing out the Juice and mixing it with Flower, Milk

Milk and Eggs, and so making a Tanzy; which notably conduces to the said Uses. *Label*, *Pena* and *Dodonæus* inform us, that some Brewers of Ale and Beer, used to put it into their Drink, in order to make it the more intoxicating and heady; and that it made such as drank of it, according to their several Constitutions, either dead drunk, or silly drunk, or mad drunk. It brings down Women's desired Sickness, and expells the Secundines or After-birth. It is used in *Italy* to be given to Women that are barren, thro' a cold and moist Disposition, to heat and dry up that Cold and Moisture, and cause Fruitfulness (tho' one would not be apt to think the Women wanted Heaters in those warm Countries, when they have but little occasion for them in these cold ones.) It puts a stop to the *Flux* of *Whites* in Women.

Schroder says it warms, dries, cleanses and attenuates: And *Hoffman* says, he used to order the Infusion of the Tops of this Plant in Wine to wash the Mouth withal, in order to prevent or remove the Putrefaction of the Gums; and says moreover, that a Conserve may be prepared of the same with Sugar, to be taken inwardly for the same Distemper. And lastly he says, That the Water distilled from the Leaves with Wine, is of excellent Use for curing the *Whites* in Women.

Tho' all other *Botanists* have comprehended *Horminum* and *Sclarea* under the same Genus, and have accounted all the different Species of them, to be only the Species of one and the same Plant; yet since our Author has thought fit to distinguish them into two different Genus's, we think our Selves obliged, according to our original Design, to copy him faithfully, and to tye our Selves down exactly to follow his Method.

TABLE LXXXII.

GENUS III.

Sclarea, *Clary*.

Sclarea or *Clary*, is a Plant with a labiated Flower of one single Leaf, whose upper Lip A, is hooked, but the under one C, divided into three Parts, with the Middle hollow like a Spoon. Out of the Flower-

Cup D, rises the Pointal E, fixed like a Nail into the hinder Part of the Flower B, and attended with four Embryo's, which afterwards turn to so many Seeds FH, which are roundish GI, shut up in a Husk HL, which was before the Flower-Cup.

The Species of this Plant are;

1. *Sclarea*. *Tabern. Icon.* 373. *Horminum Sclarea dictum*. C. B. Pin. 238. *Gallitricum sativum*. J. B. 3. 309. *Orvala*. Dod. Pempt. 292. *Orvale*, *Toute-bonne*. This is the *Gallitricum* five *Horminum* of *Gerarde*. Common *Gar-den Clary*.

It rises with a Stalk half a Yard high and better, about the Thickness of one's little Finger, square, stiff, rough, full of white Pith, and split at certain distances into opposite Branches that grow close together, in which Series or Order, the Branches divide again into other smaller ones. The Leaves are large, rough, hoary, very wrinkly and rugged, fat and plump, insensibly ending in a blunt Point from a broad Bottom, somewhat dented or snipped round the Edges, standing upon long Foot-stalks, especially the lower ones, and such as grow out of the Earth, placed opposite to one another by Couples on the Stalks. The Flowers are ranged upon the Tops of the Stalks and Branches into long and loose Spikes, composed of many Wherles, being cowed, gaping, with a very long arched Cowl, which hides a slender Pointal, sticking a little out, divided into two at the Point, and two *Stamina* with their oblong *Chives*, being of a light blue Colour, rising out of striped Flower-Cups, that are clammy to the Touch, gaping, divided into five small Prickles, three of which look up over the Flower, and two of them are placed under it. At each of the Wherles, there is placed up and down upon the Stalk a Leaf, of a very different Figure and Texture, from the lower ones that grow from the Root and upon the Stalk: For these are small, hollow, immediately adhering to the Stalk upon a broad Bottom without a Foot-stalk, ending in a sharp Point, not so rugged, and smaller than those that are upon the Stalk, and of a purplish Colour. The Root is single, ligneous, with many small hairy Fibres at it, of a darkish Colour, but no disagreeable Taste, which in some time heats the Palate and Mouth. The Seed is pretty large,
P P extremely

extremely smooth and slippery, corner'd on one Side, and gibbous on the other, of a reddish Colour. The Smell of the whole Plant is penetrating and heady, and the Taste bitter.

2. *Sclarea vulgaris, lanuginosa, amplissimo folio.* Common downy Clary, with a very large Leaf. *Æthiopis foliis sinuosis.* C. B. Pin. 241. *Æthiopis multis.* J. B. 3. 315. *Æthiopis.* Dod. Pempt. 148. This is the *Sclarea Æthiopica, sive Æthiopis laciniatis & non laciniatis foliis* of Parkinson.

First it spreads upon the Ground Leaves as broad as One's Hand, and not much longer, with a fine Down quite covering both the upper and under Side, otherwise not much unlike the Leaves of the *Sclarea sativa*, notched, some of them also jagged, (otherwise they are entire and even at the Edges.) Among these it sends up a Stalk furnished with like Leaves, but often smaller, square, and in like manner hairy or downy, hollow with many Wings: Upon which grow Flowers at the Joints in Form of Wherles, defended after the manner of the Flower of the *Horminum*, betwixt two sharp-pointed Leaves, of a Snowy white, with one Leaf rising up like a Cowl, flat, producing from its Bosom yellow Chives, and a Silver Pointal, with a hollow Lip like the *Cotula*, out of an oblong Flower-Cup, divided into five Parts, which is encompassed on all Sides with so thick a Down, that it can scarce be seen. It has the stinking Smell of the *Lamium* or *Galeopsis*. The Root is fibrous; The Seeds (four, not two only, as Caspar Bauhinus, and after him Parkinson have related) are reddish, triangular, and much like the Seeds of *Horminum*.

It grows in great Plenty in Greece and Illyria, from whence it was first brought to these Parts.

There are two Species or Varieties of this Plant, one with entire Leaves, and even at the Edges, the other with jagged or notched Leaves.

3. *Sclarea laciniatis foliis.* Clary, with jagged Leaves. *Æthiopis laciniatis foliis.* Barr. Icon.

4. *Sclarea Lusitanica, glutinosa, amplissimo folio.* Portuguese glutinous Clary, with a very large Leaf.

5. *Sclarea Asphodeli radice.* Clary, with an Asphodil Root. *Horminum sanguineum,*

Asphodeli radice. Triumph. 69. *Horminum Sylvestre, maculatum, tuberosum, Franc. de Honn-priis.*

It has many Leaves at the Root before the Stalk rises, lying upon the Ground, broad, somewhat crisp, snipped about the Edges, wrinkled, and yet smooth and not hairy, adorned with bloody Spots. It produces a Stalk a Yard and a half high, and sometimes two Yards high, square, channelled, somewhat rough, and every where cloathed with Leaves, growing at some distances over-against one another: On the Top of which, the Flowers are ranged in Form of a Spike, of a most elegant and beautiful Colour, being a deep Green, four or five growing at each Joint, from which other little Twigs taking their rise, form a Bush perfectly resembling that of the *Horminum Sylvestre quartæ speciei*, Dod. only it has larger Flowers. The Seed is black and round.

I have seen it flower in the End of May. It produces Seed at the same time with the others. It was thought proper to call this a *Tuberosè* Plant, because, for a Root it has Bulbs like those of Peony. Ray.

6. *Sclarea Indica flore variegato.* Indian Clary, with a variegated Flower. *Horminum Indicum, maximum, flore variegato.* H. R. Par. *Horminum majus, amplo flore violaceo, lobis florum punctis aureis notatis.* Mor. H. R. Blef.

It has rougher Leaves than the rest of its Kind, excepting only the *Æthiopick*, corner'd at Bottom; among which rise Stalks two Foot, sometimes three Foot high, square, which are encompassed at the Joints by two auriculated Leaves nine Inches long. Upon the Tops of the Stalks come forth large violet-colour'd Flowers in Form of Wherles, with lateral Lobes marked with Golden or Purple Spots. To which succeed in large Husks thick black Seeds, larger than those of any of the other *Hormina*.

7. *Sclarea Pyrenaica, glutinosa, foliis sinuosis.* Pyrenean glutinous Clary, with dentated Leaves. *Horminum Anguria folio.* Par. Bar. *Horminum Pyrenaicum glutinosum, Angurie folio.* D. Fagon. Schol. Bot.

This is distinguished from the other Species of *Hormina*, by its Leaves especially, which are very large, fat, nervous, wrinkly, differently and unequally sinuated, snipped and jagged

jagged round the Edges, and bearing some Resemblance to the Leaves of *Citrullum* and *Anguria*. The first which lye upon the Ground are half a Yard long and a hand-breadth broad, but the rest which grow upon the Stalks lessen by degrees. It rises with a Stalk a Yard long and better, square, rough, and split into opposite conjoined Branches, whose Tops are formed into a long Spike, after the manner of Wherles. The Flowers are like those of the *Horminum pratense*, to which the Seeds likewise answer. The Husks agree with the Husks of the *Horminum Asphodeli radice* of *Triumfetti*, viz. divided in two, and each Part furnished with two *Chives*. It has a Root full of Life and full of Shoots, running out into length, and furnished with many thicker Fibres. The whole Plant is clammy and glutinous, like the *Colus Fovis*.

8. *Sclarea Tingitana*, foetidissima, hirsuta, flore albo. Very stinking rough Clary of Tangiers, with a white Flower.

9. *Sclarea Africana præcox*, annua. Early, annual African Clary.

10. *Sclarea maxima*, Bœtica, annua, flore dilute cœruleo. The great Boetick, annual Clary, with a light blue Flower. *Horminum Bœticum, maximum, flore dilute cœruleo*. H. R. Par.

11. *Sclarea pratensis, foliis serratis, flore albo*. Meadow Clary, with dented Leaves, and a white Flower. *Horminum pratense, foliis serratis*. C. B. Pin. 238. *Gallitricum sylvestre vulgo, sive sylvestris Sclarea, flore cœruleo, magno*. J. B. 3. 311. *Orvale sylvestris, species quarta*. Dod. Pempt. 293.

Sometimes you may see this Plant a Yard high, with a square, rough, empty Stalk, divided again into others. The Leaves are larger than those of the true *Horminum sativum*, unsightly, and as it were blasted, some of them somewhat notched and dented, especially the first ones, which are shorter, and growing upon longer Foot-stalks. Others are liker those of *Sage*, with an unpleasant Smell, and a somewhat aromatical Taste. It bears large blue and purple Flowers in a long Spike, like the Flowers of *Sage* in Shape; The Seed is black. The Root ligneous, Sweet-smelling and full of Life.

It grows by the Way Side, upon Hills near cultivated Ground, and in the open Fields. *Tragus*. Every where in Meadows *Fuchs*,

Our Botanists by Mistake, took this Plant for the *Horminum sylvestre*, which grows commonly in England; whereas they are perfectly different Plants. I have never yet found this *Horminum sylvestre Herbariorum*, growing wild in England: But the *Horminum* that grows plentifully with us wild, is a Species of the *Horminum sylvestre quantum* of *Clusius*, i. e. *Horminum sylvestre Lavendulae flore*. C. B. Ray.

Casalpinus had not taken care to examine the Smell of this Plant, since he says it has none: whereas it has a very unpleasant Smell. It would seem that it has an Oily volatile Salt, in which prevails an urinous Spirit; and it does not redden blue Paper.

12. *Sclarea pratensis, foliis serratis, flore albo*. Meadow Clary, with dented Leaves, and a white Flower. *Horminum pratense, flore albo, foliis serratis*. H. R. Par. *Gallitricum sylvestre, flore majore albo*. J. B. 3. 312. This is the *Horminum pratense incanum flore albo* of *Parkinson*.

This differs from the former only in the white Colour of the Flower, and in its hoary Leaves; and is not a distinct Species from it.

The entire Seed of this Plant, as well as that of the *Sclarea*, put into the Eyes, purges and cleanses them, and allays and cures any Inflammation or Redness in them, as our *Gerarde* and others relate; nor is the common People ignorant of this, who make use of it with Success to this End. But I do not think it operates any otherwise than the *Lapis Chelidonium*, or any other polished and hemispherical Gems do.

13. *Sclarea pratensis, foliis serratis, flore suave-rubente*. Meadow Clary, with dented Leaves, and a beautiful red Flower. *Horminum pratense, foliis serratis, flore suave rubente*. H. R. Par. *Gallitricum sylvestre vulgo, sive sylvestris Sclarea, flore purpureo magno*. J. B. 3. 311.

14. *Sclarea major, foliis in profundas lacinas incis. The greater Clary, with Leaves cut into deep Jaggs*. *Horminum sylvestre majus, foliis profundius incis. C. B. Pin. 239. Gallitricum sylvestre, coma virescente*. J. B. 3. 312. *Hormini sylvestris quarti prima species; Clus. Hist. quoad Iconem. xxx.*

It grows higher than the *Gallitricum sylvestre flore albo*, with a square Stalk like the other Species, but its outward Part is not purplish

plish but green. Tho' the Flowers are alike in Form, yet they are of a paler Colour. The undermost Leaves have larger Cuts, so that they seem to be somewhat jagged.

It grows every where wild in the Copses, in high Meadow Ground, and by the Way Sides all over Germany, and in other Provinces. It flowers in May, and sometimes even in July.

It differs so very little from the *Horminum sylvestre vulgare*, that it is rather to be accounted an accidental Variety of it, than a Species distinct from it.

15. *Sclarea Syriaca* flore albo. Clary of Syria, with a white Flower. *Horminum Syriacum Sclarea dicto congener, flore albo, an Bisermas Camerarii*. H. R. Par.

It resembles the *Sclarea fativa* in its whole Make and Structure, having square, hairy Stalks, somewhat rough to the Touch, divided into many Wings, placed jointly opposite to one another. It has the Leaves of our common *Sclarea*, the first and undermost ones being small and oblong; after which follow large, shrivelled and rough Leaves, with the sweet Smell of Basil, placed in the Order of the Leaves of *Sclarea*, such as is also the Situation of the Flowers in longish Spikes, wherled at certain Distances, under which there always grow in like manner two pointed and hollow Leaves, making a Lip by their Conjunction. But the Flowers peep out of long striped, downy Flower-Cups, smelling sweet like the Flowers of *Sclarea*, but of a milky Colour, and a small Lip spotted with a few little Pricks inwardly, with crooked Stamina sticking out under a Crest, one of them of a Scarlet Colour, and the rest of a Silver Colour. The Seed is like that of the *Gallitricum sativum*, but somewhat bigger, being gibbous on one Side, and triangular on the other; of a various Colour, made of oblong black and red Spots.

16. *Sclarea Syriaca*, flore cæruleo. Syriac Clary, with a blue Flower.

17. *Sclarea*, folio *Salviae*, major vel maculata. The greater or spotted Clary, with a Sage Leaf. *Horminum sylvestre salvifolium, majus vel maculatum*. C. B. Pin. 239. *Hormini sylvestris 5ta altera species*. Clus. Hist. xxxi.

It generally rises a Yard high, and sometimes even exceeds it. Its Stalks are three

times thicker than those of the *Horminum salvifolium minus*, but still they are square. The Leaves are much larger and thicker, stain'd almost over with white Spots. The Spike of the Flowers is longer and thicker. But the *majus* and the *minus* agree in Form and Colour, as well as in the Seed.

This Species is rarer than the lesser Sort; nor is it to be found unless in Meadows and grassy Places, and begins to flower somewhat later than the other.

18. *Sclarea folio Salviae*, minor, five glabra. The lesser or smooth Clary, with a Sage Leaf. *Horminum sylvestre, salvifolium minus*. C. B. Pin. 239. *Gallitricum glabrum folio Salviae, flore purpureo*. J. B. 3. 312. *Hormini Sylvestris 5ta species prior*. Clus. Hist. xxxi.

It is very like the *Sylvestre Gallitricum vulgare*. The Leaves grow opposite to one another at the Knots of the Stalks, much smaller and narrower than those of the said *Gallitricum*, shrivelled, somewhat resembling Sage Leaves, unless that they are dented and snipped round the Edges, without Hairs, tho' on the lower Part they are somewhat whiter, of a drying and bitter Taste, but of a pleasanter Smell, than those of the *Horminum sylvestre Lavendulae flore*. The thick and frequent Wherles of the Flowers form a Spike; they are of a violet purple Colour, less than those of the *Gallitricum* describ'd; with two pretty broad, short, and somewhat blue Leaves under each of them. The Seed in the Flower-Cups is black, and smaller than in the other Species. The Root is sometimes as big as one's little Finger, cover'd with a black Bark, being yellow within, and produces many Stalks every Year, lying on the Ground in that Part which is undermost and next to the Earth, and then shooting down Roots from the Knots, which are next to the Original Root.

It grows every where about Vienna, and all over Hungary by the High-ways, and upon the Sides of Vineyards and Cultivated Ground.

It flowers the whole Summer, and then bears Seed.

19. *Sclarea folio Salviae*, flore purpureo. Clary, with a Sage Leaf and a purple Flower. *Horminum Salviae folio*. Mor. H. R. Blef.

20. *Sclarea folio triangulari, dentato*. Clary, with a triangular dented Leaf. *Horminum*

nium Lapatbi unctuosifolio seu majus, hastato folio. Mor. H. R. Blesf.

This has rough angular Leaves, or auriculated at the Bottom: But they end in a Point, like the Point of a Spear: They likewise resemble the Leaves of the *Lapathum unctuosum*. It bears a large Flower, wholly of a violet Colour. The Seeds are less in all respect, than in any of the rest.

I have seen it in the Garden of Mr. Edward Moran at Westminster, and in Mr. Watts's Garden at Chelsea. Ray.

21. *Sclarea folio triangulari, caule tomentoso.* Clary, with a triangular Leaf and a flocky Stalk. *Horminum hastatis amplioribus foliis seu Ari modo alatis, caulibus & pediculis araneosa lanugine villosis, ex Insula Gomera.* Pluk. Almag. Bot. & Phytog. 301. Fig. 2.

22. *Sclarea Tingitana, Betonicæ folio, flore cæruleo.* Tangiers Clary, with a Betony Leaf, and a blue Flower.

This is the least of all the Species I have seen, about half a Foot or nine Inches high, with a small upright Stalk, not branchy, but furnished with two small Twigs at the beginning of the Spike, rough, with short and stiff Hairs, as are the Leaves, an Inch long, and half an Inch broad, entire, two opposite to one another, very thin-set; in my Samples there were only two or three Pairs on a Stalk. The Flowers grow upon the Top of the Stalk in Wherles thin-set, there being two or three in each Wherle, larger than the Proportion of the Plant can allow, gaping, and resembling the Flowers of *Sclarea*. The Plant which I now describe, was communicated to me by D. Sherard. Ray.

23. *Sclarea Africana, frutescens, Helianthemifolio.* Olden. Frutescent African Clary, with a small Sun-Flower Leaf.

24. *Sclarea laciniata, pumila, flore magno.* Jagged dwarf Clary, with a large Flower. *Horminum valde pumilum, laciniatum, flore amplo, cæruleo Sherardi.* Pluk. Almag. Bot.

25. *Sclarea rugoso, verrucoso, & laciniato folio.* Clary, with a shivelled, rugged, and jagged Leaf. *Horminum Syriacum, rugoso, verrucosæque folio.* Par. Bar. Pluk. Phytog. Tab. 194. Fig. 5.

26. *Sclarea orientalis, foliis Salviæ, flore partim albo, partim flavo.* Oriental Clary, with Sage Leaves, and a Flower partly white and partly yellow.

27. *Sclarea orientalis, Betonicæ folio acutissimo, coma purpurascente.* Oriental Clary, with a very sharp-pointed Betony Leaf, and a purplish Bush.

28. *Sclarea orientalis, foliis rotundioribus, candidissimis.* Oriental Clary, with roundish and very white Leaves.

29. *Sclarea orientalis, incana, foliis quasi alatis.* Oriental hoary Clary, with Leaves as if they were winged.

30. *Sclarea orientalis, verbasco folio, flore partim albo, partim flavescente.* Oriental Clary, with a Mullein Leaf, and a Flower partly white, and partly yellowish.

31. *Sclarea orientalis, folio subrotundo, flore magno partim albo, partim purpurascente.* Oriental Clary, with a roundish Leaf, and a large Flower, partly white, and partly purplish.

There is none of all the Species here described, remarkable for any Medicinal Virtues except the first; which we shall give an Account of in as few Words as possible.

If it be put into Wine while it ferments, it is an excellent Remedy for the Coldness of the Stomach, for it cuts and consumes Flegm: It is likewise a good Remedy for Women that are cold, barren, and that are troubled with the Whites. Some say that it is bad for the Head, because of its troublesome and noisom Smell. Trag. who upon this Occasion exclaims against sulphurated Wines.

The Seed, says *Lobelius*, makes the Head heavy and drowsy, by its Smell, which runs thro' the whole Plant, but is not disagreeable; and is for that Reason much used by the Northern People in making of their Ale and Beer. For either for want of Hops, or in order to make the Drink more exhilarating, they put it into the boiling Cauldrons, and thus making an intoxicating Liqueur, by which they become fuddled only with drinking a few Draughts, and play such Frolicks as if they were distracted.

Caspar Hoffman writes, That this Plant put not only into Beer, but even into Wine, makes it drink like Muscadell Wine, and that it may very easily impose upon the Unwary.

The Herb made into Powder, and put up the Nose, causes Sneezing, takes away a Catarrh or Rheum, and purges the Brain. The Decoction of this Plant in Water, brings down the Courses in Women, and such like,

as effectually as Dittany. *Dodoneus* says, that in whatever manner it is taken, it brings down the Courses and expells the After-birth.

In *England* they take the Leaves with beaten Eggs, Cream, and some Flower, and fry them in a Frying Pan, and bring them to Table as a second Course, which they commend exceedingly for a Weakness in the Back. This is certainly a very grateful Dish to the Palate, and is thought very effectual for strengthening the Reins, and provoking Lust.

The Leaves steep'd in Vinegar, either by themselves or with Honey, discuss Boils, and even Felons, if they are not come to a Head. *Matthioli*. The Mucilage of the Seed does the same; which is thought to be appropriated for the Distempers of the Eyes.

Schwenckfeld says, that it cures Epilepsies and Suffocations of the Matrix: And *Crato*, among his other *Hyporista*, commends an Ointment of this Herb boiled with Butter, to which is added some *Tacamahaca*, and laid upon the Navel, in Suffocations of the Womb, and such like Affections.

The whole Seed put into the Eyes, is said to be very good for removing Dimness, and to send out any Mores that have fallen into them. Because being carried round the Bulb of the Eye by much turning, it falls out at last when it is full of Moisture, and covered with the Nastiness and Matter of the Eye.

Fig. 1. TABLE LXXXIII.

GENUS IV.

Salvia, Sage.

Sage, is a Plant with a labiated Flower of one single Leaf, whose upper Lip A B, is sometimes arched and sometimes hooked, but the under one D E, is divided into three Parts, bunching out, and not hollow like a Spoon, as in *Horminum* and *Sclarca*. Out of the Flower-Cup H, rises the Pointal I, fixed like a Nail into the hinder Part of the Flower C, and attended as it were by four Embrio's, which afterwards turn to so many Seeds M, which are roundish L, shut up in a Husk K, which before was the Flower-Cup. To these

Marks may be added, That the *Stamina* F G, do somewhat resemble the *Os Hyoides*.

The Species of Sage are,

1. *Salvia montana*, maxima, foliis Hormini, flore flavescente. The great Mountain Sage, with Clary Leaves and a yellowish Flower. *Horminum luteum, glutinosum*. C. B. Pin. 238. *Galeopsis species lutea, viscida, odorata, nemorensis*. J. B. 3. 314. *Ovala* 3. Dod. Pempt. 292. This is the *Horminum luteum*, sive *Colus Jovis* of *Parkinson*, and the *Colus Jovis* of *Gerarde*; as also the *Galeopsis lutea Dalechampii*. Park. Yellow Clary, or Jupiter's Distaff.

It stands upon a Root notably fibrous, sending up from thence many Stalks a Yard high and better, square, rough, full of fungous Pith, branched out into Wings. The Leaves come forth out of the Joints, opposite to one another, hanging by long rough Foot-stalks, winged after the manner of the *Arum*, but shrivelled and rough, like the dead Nettle Leaves, tho' they are much larger, dented round the Edges, with a deep Red, sometimes running along the Edges; The Flowers encompass the Branches in long Spikes like Wherles, being rough without, and smooth within, with a Lip divided into three Parts, the middle Jagg being fringed and crisped, without of a whitish yellow Colour, and within stained with obsolete Spots. But the upper Leaf or Crest is spotted, and yellow within: Out of the middle Yawn or Gape, come forth white *Stamina* or *Threads*. The Flowers sit upon oblong, striped, clammy Flower-Cups, in which the Seed afterwards grows, after the manner of the wherled Plants. The whole Plant is clammy to the Touch, sweet Smelling, but has no remarkable Taste.

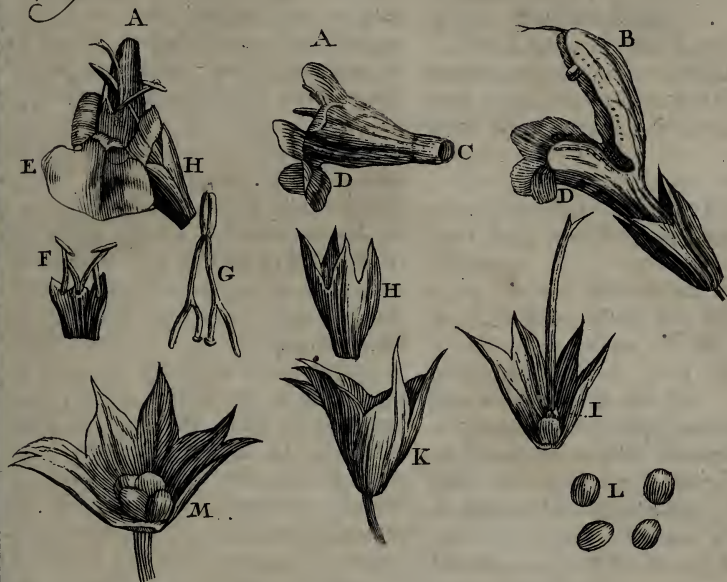
It grows upon the Hills about *Geneva*. I have likewise found it often in *Italy* and *Germany*, in clayey Places, where there are Springs and Boggs, at the Sides and Bottoms of Mountains. Ray.

2. *Salvia major*, an *Sphacelus* *Theophrasti*. C. B. Pin. 237. The greater, or common Sage. *Salvia latifolia*. J. B. 3. 504. *Salvia major*. Dod. Pempt. 290.

From a lively, perennial ligneous Root, there arise ligneous Shoots, variously turning and bending, and very full of Branches. The younger

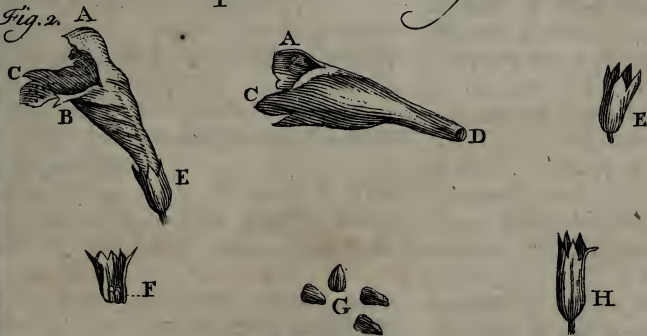
Salvia. Sage.

Fig. 1.



Dracocephalon. Dragons-head.

Fig. 2.





younger Branches and Shoots are square, rough with a short Down, and adorned with Pairs, of Leaves opposite to one another at distances. The Leaves stand upon long Foot-stalks, shrivelled, rough, with a short and scarce discernible Down, three or four Inches long, an Inch and a half broad, snipped round the Edges, pointed, sometimes green, and sometimes of a Colour betwixt red and purple, with a very strong aromatick Smell and Taste. The Flowers are ranged in Spikes, upon the Tops of the Stalks and small Branches, growing like Wherles, each of them resting upon single Foot-stalks, rising out of the Bosoms of the concave, triangular Leaves that grow in Pairs at the Joints. The Flower-Cups are large, channelled, divided into five Segments, the three smallest being placed below, and the two largest above. The Flowers are blue, or of a blueish purple, consisting of one single Leaf, crested, with the two Sides of the Crest meeting, and an oblong, broad Lip split into two Parts, hanging down, with two Auricles as it were above. The *Stamina* are forked at Top, with whitish oblong *Chives*, growing out of the Sides of the Flowers. To every little Flower succeed four Seeds, after the manner of the wherled Plants.

The Tops of the Plant are wet, with a certain glutinous aromatick Moisture.

3. *Salvia major*, calyce florum purpurascente. The greater Sage, with a flower-Cup of a purplish Colour.

4. *Salvia major*, foliis versicoloribus. C. B. Pin. 237. The greater Sage, with Leaves of various Colours.

5. *Salvia major*, foliis ex luteo & viridi variegatis. H. R. Par. The greater Sage, with Leaves variegated with yellow and green.

6. *Salvia altera*, perelegans, tricolor, argentea Belgarum. H. R. Par. Another most beautiful three-coloured Sage, the Silver Sage of the Dutch.

7. *Salvia minor*, sinuata, foliis per limbum aureis. H. R. Par. The smaller sinuated Sage, with Leaves of a Golden Colour about the Edges.

8. *Salvia folio subrotundo*. C. B. Pin. 238. Prodr. 113. Sage, with a roundish Leaf.

This has a square hairy Stalk, with round Leaves, much resembling the Leaves of the *Violaria* or *Aristolochia rotunda*, but ending in

a Point, rugged, more hoary and thinner than the common Sort.

9. *Salvia latifolia*, ferrata. C. B. Pin. 237. Broad-leaved, notched Sage. *Salvia folio ferrato*. Prodr. 113. *Salvia ferrata, crispa*. J. B. 3. 305. Curled Sage.

The Leaves of this Sage are shorter, broader and rounder than the Leaves of the common Sage [some are four Inches long, and three Inches broad] notched and curled at the Edges.

The Flowers in most of the Plants are of a purplish Colour, like the Flowers of the common Sage, and in some they are white, but seldom.

10. *Salvia Absinthium redolens*. C. B. 3. 307. Sage, smelling like Wormwood. *Salvia minor, altera*. C. B. Pin. 237. Wormwood Sage. This is the *Salvia minor, altera flore rubente* of Parkinson.

It has a pretty large purplish wherled Flower [but that which is trained up in our Gardens has a white Flower] with a Pair of Leaves of the smaller Sage, sometimes winged, and sometimes without Wings, smelling like Wormwood; and yet the dried Leaves scarce retain that Smell.

It grows both with a purple and a white Flower. *J. Bauhinus*, proposes it to be considered, whether that which bears a purple Flower, differs from that which bears a white Flower; or whether it does not sport with the Colour of the Flower.

It agrees in all Things, except in the Smell and Taste, with the smaller Sage; for which Reason, I am apt to think it is not a different Species from it. Ray.

11. *Salvia baccifera*. C. B. Pin. 237. Berry-bearing Sage. *Salvia Cretica, pomifera*. Clus. Hist. 343. This is the *Salvia Cretica major, latifolia & angustifolia, aurica & non aurita, pomifera & non pomifera* of Parkinson.

This great Sage has many square hoary hard Stalks, especially when they are young, but turning almost round when they grow old, rising both greater and higher in the hot Countries, than with us, whereon are set two Leaves at a Joint, one over against another, in some like our ordinary Sage, but larger, in others somewhat smaller and longer. In many Plants of both Sorts, there will be small Pieces of Leaves growing on both Sides, at the Bottom of the Leaves, and in some Plants or Places, there

there will be none of these Pieces or Ears to be seen (which has caused different Authors to give different Figures) which are very hoary underneath, and more green on the upper Side, having as it were the Hoariness rubbed off of them, of a much stronger Smell than the common Sort. The Stalks branch forth on all Sides towards the Tops, on which stand the Flowers at distances, like the Flowers of ordinary *Sage*, but of a pale or whitish purple Colour : After which come great Heads of Seeds, standing in the same Husks or Cups that bore the Flowers before, which are so much swoln, that they seem to be Berries, with three or four great Seeds in them. These Kinds likewise bear in hot Countries, such as *Egypt*, *Candy*, &c. at the Joints, and sometimes between the Joints of the Stalks, certain Excrescences like small Apples or Berries, bigger than *Pistach* Nuts, of an Inch Thickness at least, and covered with much Down or Cotton, somewhat rough to the Touch, of a Taste not so hot, but more astringent than the common *Sage*, and not unpleasant, which People eat with Bread, but in other colder Countries, it never bears any.

12. *Salvia Cretica*, non pomifera. *Clus. Hist.* 343. *Sage of Candy*, not bearing Apples or Berries.

13. *Salvia Cretica*, non pomifera, flore albo. *Sage of Candy*, not bearing Apples, with a white flower.

14. *Salvia angustifolia*, serrata. *Parrow* leaved, notched *Sage*. *C. B. Pin.* 237. *Salvia Cretica*, *angustifolia*. *Clus. Hist.* 343. This is the *Salvia Cretica non aurita* of *Parkinson*.

This Species rises up with several hard Stalks, of a brownish Colour, having the Leaves placed in Pairs, which are much narrower than in any other *Sage*, and without any Ears at all, of a whitish green Colour like the small *Sage*, and a little dented or crumpled about the Edges. This branches forth plentifully, bearing purple Flowers at the Tops in Spikes, without any Leaves among them. The Root is hard and woody, spreading several Ways under Ground.

15. *Salvia minor aurita*, & non aurita. *C. B. Pin.* 237. The smaller *Sage* with, and without Ears. *Salvia minor*, *auriculata*. *J. B. 3.* 305. *Salvia minor*. *Dod. Pempt.* 290. *Sage of Vertue*.

This lesser *Sage* grows like the great white

Sage, but that the Branches are longer and slenderer; the Leaves whitish, and never red, and much smaller or narrower, having for the most part, at the Bottom of each Leaf, on each Side, a small Piece of a Leaf, which makes it look like a Finn or Ear. The Flowers also are of a blueish purple Colour, but lesser. Of this Kind there is one that bears white Flowers, but differing in nothing else from the other.

16. *Salvia minor non aurita*, flore albo. *H. R. Par.* The lesser *Sage* without Ears, with a white flower.

17. *Salvia minor*, foliis variegatis. *H. R. Par. App.* The smaller *Sage*, with variegated Leaves.

18. *Salvia folio tenuiore*. *C. B. Pin.* 237. *Sage*, with a slenderer Leaf. *Salvia Hispanica* flore albo. *Eyst.*

This sweet-smelling small *Spanish Sage*, is in most respects so like the ordinary small *Sage* with Ears, or *Sage of Vertue*, that unless it be carefully examined, it will be taken for the very same; but the Difference consists in this, that it seldom grows to be so large; the Leaves are somewhat smaller and greener, or not so white, it is more tender and difficult to be preserved, and quicker perishes in the Winter, unless it be better defended than the other; and the Smell is much milder, sweeter and pleasanter, yet somewhat quicker withal than the former, which is easily discerned by any one that is nice in Smelling. And lastly, some Kinds of this bear white Flowers, and others blue.

19. *Salvia Hispanica*, *Lavendulae folio*. *Spanish Sage*, with a *Lavender* Leaf.

20. *Salvia Cretica*, pomifera *Clusii*, flore albo. The *Candy Apple-bearing Sage* of *Clusius*, with a white flower.

21. *Salvia Cretica*, frutescens, pomifera, foliis longioribus, incanis & crispis. *Frutescent Apple-bearing Sage of Candy*, with longer hoary and curled Leaves.

22. *Salvia Samia*, frutescens, foliis longioribus, incanis, non crispis. *Frutescent Sage of Samos*, with longish, hoary and not curled Leaves.

23. *Salvia Samia*, *verbasci folio*. *Samos Sage*, with a *Mullein* Leaf.

24. *Salvia orientalis*, foliis subrotundis, acetabulis *Moluccæ*. *Oriental Sage*, with roundish Leaves, and the Hollow or Pan of *Molucca Baulm*.

25. *Salvia*

25. *Salvia orientalis*, frutescens, foliis circinnatis, acetabulis Moluccæ. Frutescent oriental Sage, with Leaves perfectly round, and the Hollow of the Molucca Baulm. *Salvia Syriaca*, *Cisti femina foliis*, acetabulis Moluccæ. Breyn. Cent. 1. 170.

26. *Salvia orientalis*, foliis subrotundis, flore minore, purpurascente. Oriental Sage, with roundish Leaves, and a small purplish Flower.

27. *Salvia orientalis*, foliis alatis, amplioribus, non crenatis, odore Mari. Oriental Sage, with winged Leaves, pretty large, but not dented, Smelling like Marum.

28. *Salvia orientalis*, foliis alatis, minoribus & crenatis, odore Mari. Oriental Sage, with winged Leaves, but smaller and notched, smelling like Marum.

29. *Salvia orientalis*, foliis alatis, majoribus & serratis. Oriental Sage, with winged Leaves, that are larger and jagged.

30. *Salvia orientalis*, foliis alatis, obscurè virentibus, odore *Salviæ vulgaris*. Oriental Sage, with winged Leaves of a dark green Colour, and the Smell of common Sage.

The Species of *Sage* may be known, even when they want Flower and Fruit, by a certain aromack, heavy Smell, peculiar to it self, and by its wrinkled Leaves, such as are old Cloaths rumbled by wearing.

Sage is accounted a most wholesome Plant amongst our Countrymen, and therefore in the Spring, and especially in the Month of May, they use to eat the Leaves and tender Tops of it with Butter to purify the Blood, and preserve Health. But because *Toads* do frequently nestle under it, we ought never to use it without having first washed and cleansed it very carefully. *Paræus* says, he was told by one of good Credit, That two Merchants not far from the City of *Toulouse*, were instantly poisoned upon the Spot, by drinking Wine into which they had thrown the Leaves of unwashed *Sage*, under whose Roots there was afterwards found a great Nest of *Toads*, which a Physician of that Place affirm'd, had poison'd the *Sage* with their Venom. There is a parallel Story, if not the same, told by *Boccaccio*, of two Friends or Lovers that were both killed by eating the Leaves of *Sage*, under which a *Toad* was found to remain. And therefore, to keep away *Toads*, and other ve-

nomous Creatures, the *Italians* are wont to plant *Rue*, either by it, or intermixed with it; which gave occasion to the Poet to join them both together in this Line,

Salvia cum Ruta faciunt tibi pocula tuta.

They whose Hands shake, will find great Benefit in washing them in the Decoction or Maceration of *Sage* in Wine.

If you make a Decoction of a Handful of *Sage*, two Drams of *Virginia Tobacco*, and a Pugil or two of dried Barley Meal in Beer Vinegar, for a *Gargarism* to wash the Mouth, or to wash the Teeth when they ache, you will find great Ease in using it, as I have found by Experience in prescribing it to the Country People. *Simon Paulus*.

Orpheus says, That three Spoonfuls of the Juice of *Sage* taken fasting with a little Honey, doth presently stop the Spitting or Vomiting of Blood; which is confirmed by the Testimony of the famous *Veslingius*, who found it true from his own Experience, having gathered the Experiment from *Aetius*, and tried it with Success in his own Practice.

For those that are in a *Consumption*, these Pills are much commended. Take *Spikenard* and *Ginger* of each two Drams; of the Seed of *Sage*, a little toasted at the Fire, eight Drams; of long *Pepper* twelve Drams; all these being brought into fine Powder, let so much Juice of *Sage* be put thereto as may make it into a Mass, fit to be form'd into Pills, of which take a Dram every Morning fasting, and as much at Night, drinking a little fair Water after them.

Matthirolus says, That it is very effectual for all Pains of the Head, proceeding from cold and rheumack Humours; as also for the Pains of the Joints, whether used inwardly or outwardly, and therefore it relieves such as have the *Falling Sickness*, and *Letbargy*, such as are dull and heavy, and such as have the *Palsy*; it is of much Use to such as are troubled with Defluxions and Destillations of thin *Rheum* from the Head, and for the Diseases of the Chest or Breast. The Leaves of *Sage* and *Nettles* bruised together, and laid upon the *Imposthume* that rises behind the Ear, asswages and eases it much. The Juice of *Sage* taken in warm Water, cures a *Hoarsness* and *Cough*. The Leaves

boiled in Wine, and laid upon any Part affected with the *Palsy* is of excellent Use, if the Decoction be likewise drunk. *Sage* taken with *Worm-wood*, is prescribed for the *Bloody-Flux*.

Pliny says, It brings down Women's Courses; and diminishes them when they come down too fast, cures the Stings and Bites of Serpents, and kills the *Worms* that breed in the Ears, and in all other Sores. *Sage* is accounted to be of excellent Use for assisting the Memory, by warming and quickening the Senses; and the Conserve made of the Flowers is used for the same Purpose, as also for all the other mentioned Diseases. And indeed all other Arts of fortifying and encreasing the Memory, beside the vigorous and healthy Disposition and Habit of the Body, and the perfect Freedom and Clearness of the Senses, seem to be no other than so many Juggles and Tricks of *Legerdemain*, to impose upon weak and credulous Minds, who are apt to catch at every strange Novelty within a certain Circumference, how much so ever they are tied down to a beaten Tract of Superstition in other Respects.

The *Italians* are persuaded, that if they eat *Sage* fasting with a little Salt, they shall be safe all that Day from the Poison or Biting of any venomous Creature.

For the *Whites* in Women, it is prescribed thus. Take *Sage*, *Sarsaparilla* and *Balaust*, of each an equal Quantity. Take one Dram of this every Morning for some Days. This is the Remedy made use of by the Court Ladies-*Chefneau*.

Agrippa says, That if Child-bearing Women, whose Wombs are too moist and slippery, and not able to conceive, by Reason of that Default, shall take a Quantity of the Juice of *Sage*, with a little Salt, for four Days together, before they keep Company with their Husbands, it will help them to conceive; and that it has good Effect upon those who have already conceived, and are apt to Miscarry upon any small Occasion, by causing the Birth to be the better retained, and to become more lively: Therefore in *Cyprus* and *Egypt*, after a great Plague, Women were forced to drink the Juice of *Sage*, to cause them to be more fruitful, after the pernicious Air that might be supposed to weaken the Parts proper for Generation: Tho' methinks the Men

ought to be allowed their Share, as well as the Women, to strengthen their enfeebled Generative Parts.

I had almost forgot to tell you, that this Genus is called *Salvia à Salvando*, because it is salutary or healthful in many Cases, but especially in Barrenness: Since by the frequent Use of this Plant, barren Women have become fruitful; for which Reason *Agrippa* call'd it *Herba Sacra*. It is called in *Greek* *Ἑλελίσσαν*, *Dioscorid. Lib. 3. Cap. 40*. The pale Ash-coloured, dry and withered Deformity of the Leaves on the dry and parched Hills in hot Countries where it grows naturally, was the Occasion of giving it that Name; as if you should call it scorched, or consumed by blasting; for *ἑλελίσαν*, signifies *intorquere & contrahere*, to be drawn together and wound up within it self, and *σφάν*, or rather *σφάνελ*, signifies that Disease in Plants, which the *Latins* call *Sideratio*, Blasting, i. e. when the Plant by the extreme Heat of the Sun in the *Dog-days*, or otherwise piercing into it, and drying the Moisture that nourished it, seems to grow faint and dry, and as it were scorched and burnt up. It might, saith *Pena*, be fitly so named, from the Help it gives to those Parts of a Man's Body, that seem to be as it were dead by some blasting, in restoring the Warmth and Vigour to the Part; in which Quality it excels, giving a friendly and beneficial Comfort to the animal and vital Spirits; and therefore the *Latins* called it *Salvia, quia salvos homines atque incolumes efficiat*: and the *Latin* versifier took Occasion from hence to say,

Cur moritur Homo, cum Salvia crescit in horto.

TABLE LXXXIII.

GENUS V.

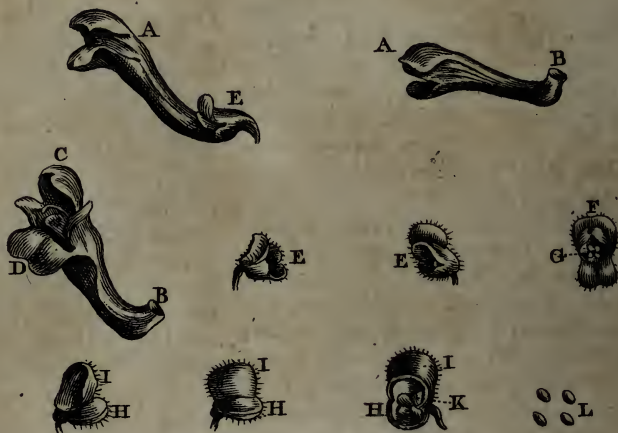
Dracocephalon, Dragon's-head.

DRAGON'S-head, is a Plant with a labiated Flower of one single Leaf, whose upper Lip A, which is crested, and its under Lip C, which is divided into three Segments, end in Chops or Jaws B, and give some Sort of a Representation of a *Dragon's-head*. Out of the Flower-Cup E, rises the Pointal F, fixed like

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OF THE
CITY OF NEW YORK
1898

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OF THE
COMMISSIONERS
OF THE
LAND OFFICE
1898

Caffida. Skull-Cap.



Brunella. Self-heal.



like a Nail into the hinder Part of the Flower D, and accompanied with four Embryo's, which afterwards turn to so many Seeds G, shut up in the Husk H, which before was the Flower-Cup.

I know but one Species of *Dragon's-head*, which is,

Dracocephalon Americanum. Breyn. Prodr. 1. 34. *American Dragon's-head*. *Digitalis Indica*, *angustifolia*, *profunde serrata*, *Perficæ folio*. H. R. Par. *Digitalis Americana*, *purpurea*, *folio serrato*. H. R. Par. 79. *Pseudo-digitalis foliis dentatis*, *Perficæ foliis*. Bocc. Rarior. Plantar. 11.

The Leaves are long and narrow, dented round the Edges, and end in sharp Points; and are so very like the Leaves of the *Perfica*, both in Shape and denting, that nothing can be more so. But those out of whose Bosoms the Flowers come forth, are very small and short, and each of them stands upon a very short single Foot-stalk. The Flowers are properly called galeated or crested, and are large, of a purplish Colour, to each of which succeed four angular Seeds, contained in Flower-Cups cut into five Parts round the Brims, after the manner of wherled Plants.

This Plant therefore is, without Ground, ranked by some among the *Fox-Gloves*.

It is called *Dracocephalon* from two Greek Words, *δράκων*, *δράκων*, a Dragon and *κεφαλή*, Head.

TABLE LXXXIV.

GENUS VI.

Cassida, Skull-Cap.

Skull-Cap, is a Plant with a labiated Flower of one single Leaf, whose upper Lip AC, resembles an Helmet with two small Ears, but the under Lip D, is generally cut in two. Out of the Flower-Cup E, whose upper Part is crested F, rises the Pointal G, fixed like a Nail into the hinder Part of the Flower B, and attended by four Embryo's, which afterwards turn into so many Seeds K, that are oblong L, shut up in the Husk HI, which before was the Flower-Cup; in a Husk, I say, that pretty near resembles a

Head defended by a Helmet; for the upper Part I, seems to represent the Crest, and the lower Part H, another Part of the Helmet by which the under Jaw is defended.

The Species of this Plant are,

I. *Cassida*. Col. Part. 1. 187. *Lamium peregrinum* sive *Scutellaria*. C. B. Pin. 231. *Scutellaria Teucrii facie*. J. B. 3. 291. *Lamium Astragaloides*. Cor. 129. This is the *Lamium Hispanicum* of Parkinson.

The Fruit of this Plant is round and compact, cover'd over with a thick, moist, clammy and Sweet-smelling Roughness, that stains the Hands while it is green; the Fore-part of which is drawn out into a Point, having a Fissure in Form of a Mouth, and below that a raised Seldedge, as it were in the Front, great in Proportion, raised like a Crown, or an oblique Crest, with which it seems to be adorned, as in Soldier's Helmets. When the Fruit begins to be dry, it opens a gaping Mouth, raising the upper crested Part as in Helmets, in the same manner as if a Soldier would uncover his Forehead, as they use to do in the Summer, or that they may see the better, and shews four Seeds adhering within, small, round, reddish and rugged. When they are ripe and dry, the upper raised Part of the Fruit falls with them, leaving only the lower Part sticking to the Stalk by a short Foot-stalk; which Stalk, from a small netly, oblique, ligneous, yellow fibrous Root, grows half a Yard high or better, being solid, reddish at Bottom, upright, single, square, rough, surrounded with Leaves that grow in Pairs at the Joints, small Below, but larger Above, of a dark Green in shady Places, but in open Places of a pale faint Green, rough, soft, with Foot-stalks sticking out from the Stalks, dented quite round, with blunted Teeth like the *Melissophyllum*, which they more resemble in Shape and Size, not so wrinkled, but plain like the Dead-Nettle. The Branches coming out of the Bosoms of the Leaves at each Joint in Pairs, divide the Stalk; on the Top of which, and of the Stalk there grow little narrow Leaves, sharp-pointed, smooth, being the Basis of the Flowers, as in *Horminum* and the like, sending forth Flowers in Pairs, that are purple, crested, and oblong, like the Flowers of the Dead-Nettle, not oblique, but upright at the Neck, and looking one Way, having a

long whitish Neck. It flowers by degrees from the Bottom, as it were by a long Spike, in the Months of *May* and *June*, and is perfected in the Summer.

I have observed this Plant in *Italy*, about *Florence* and *Leghorn*, and in other Places, with respect to the Flowers and Flower-Cups, it very much resembles the *Lysimachia galericulata dicta*; for which Reason at first Sight, I call'd it *Lysimachia galericulata Urticæ folio*. Ray.

It is found in uncultivated Ground, and loves moist and rocky Places among Hills and Mountains, and about Hedges. The Leaves are very bitter, unpleasant to the Taste, and have little or no Smell.

It varies by a white pale Flower, and white Leaves, like those of the *Calamintha latifolia*.

The *Lamium Astragaloides* of *Cornutus* is very like it, and, if I am not mistaken, the very same Plant.

2. *Cassida flore exalbido*. Skull-Cap, with a whitish Flower. *Scutellaria Teucrii facie, flore albo*. J. B. Descript. 3. 291. *Cassida flore ex albo pallente*. Gol. Descript. Part. 1. 190.

3. *Cassida Alpina supina, magno flore*. Low Mountain Skull-Cap, with a large Flower. *Teucrium Aragaloides, Cassida minor*. H. R. Par.

4. *Cassida Americana procerior*. *Scutellaria aquatica, major, Americana*. H. L. Bat. The taller American Skull-Cap.

5. *Cassida palustris, vulgator, flore cæruleo*. The common marsh Skull-Cap, with a blue Flower. *Lysimachia cærulea, galericulata, vel Gratiola cærulea*. C. B. Pin. 246. *Tertianaria aliis Lysimachia galericulata*. J. B. 3. 435. *Lysimachia galericulata*. Lob. Icon. 344.

The Figure which *Tabernaemontanus* has given of this Plant, is better than that given by *Lobel*. The Plant which *Casalpini* called *Gratia Dei*, ought to be brought to the *Gratiola Centauroides*, and not to this, as you may see in the *Pinax*. It is more likely, that *Casalpini* mentioned the Plant we are speaking of by the Name of *Gratia Dei altera*; tho' *Caspar Baubinus* has ranged it under the *Gratiola Centauroides*. The Words of *Casalpini* are those that follow. ' *Gratia Dei* has a square Stalk, nine Inches high, with narrow oblong Leaves growing in Pairs at distan-

ces; among which appear hollow and oblong Flowers, with cut Lips, of a blueish purple Colour. The Seed-vessels are round, like those of the *Anagallis*. The other *Gratia Dei* is somewhat higher and more branched, with longer Leaves, like the Leaves of the *Lysimachia purpurea*, with whitish purple Flowers.'

This *Cassida* is not much used in Physick, tho' *Camerarius* says, that a Decoction of it is good in a Quinsy. And *Baubinus* informs us, that *Turner* affirmed, that it was called *Tertianaria*, because it cured intermitting Fevers. It is bitter, smells of *Garlick*, and reddens blue Paper in the same manner, as the common *Scordium*, and some other febrifugous and aperitive Plants do.

6. *Cassida palustris, vulgator, flore albo*. The more common marsh Skull-Cap, with a white Flower.

7. *Cassida palustris minima, flore purpurascens*. The smallest marsh Skull-Cap, with a purplish flower. *Gratiola minor latifolia nostras*. Park. Theatr. 220. The lesser hooked Loose-Strife.

It spreads it self far and wide, creeping under Ground with white Roots, jointed at distances, and sending forth Fibres at the Joints. It sends up Stalks scarce a hand-breadth high, upright, stiff, square, small, branched from the very Bottom, begirt with thick-set Leaves, growing opposite to one another in Pairs. The Leaves, which are half an Inch, or an Inch long, triangular, and end gradually in a sharp Point from a broad Bottom, stand upon very short Foot-stalks, in shady Places smooth, but in open Places rough, and then reddish. From each Wing of the Leaves come forth single Flowers, with short slender Foot-stalks, bending to one Side, crested, with a long Pipe, purplish, with a white Lip variegated with purple Stains and Lines, out of a Flower-Cup, representing the Heel of a Sandal, which, after the Flower is falln, becomes a close Seed-vessel, shut up with a Cover, and containing four Seeds. The Plant is bitter to the Taste.

It Flowers in marshy Places, in the Months of *July* and *August*.

8. *Cassida Americana, Malvæ folio*. American Skull-Cap, with a Mallows Leaf. *Scutellaria Americana, Malvæ folio*. Moris. H. R. Bles.

It puts forth Leaves somewhat resembling the Leaves of Marsh-mallows in Shape, but larger; from among which, starts up a Stalk a Foot and a half long, upright, bearing on its Top many wherled, crested Flowers; to which succeed Husks like the Heel of a Woman's Shooe, if you look upon the hinder Part of the Husk; but if you look upon the upper Part of the seminal Husk, it perfectly resembles a *Saucer*, by its Cavity on the upper Side.

From the singular and peculiar Shape of the Fruit or *Pericarpium*, (says *Columna*, Part. 1. 187.) which we have not yet observed in any other Plant, expressing the Figure of a Military Helmet or *Casque*, we thought it proper to call it *Cassida*, for so they call it in *Latin*.

TABLE LXXXV.

GENUS VII.

Brunella, Self-heal.

SELFheal, is a Plant with a labiated Flower of one single Leaf A, whose upper Lip B, is crested, but the under Lip C, is divided into three Segments, with the middle D, hollow like a Spoon. Out of the Flower-Cup X, rises the Pointal F, fixed like a Nail into the hinder Part of the Flower E, and attended as it were by four Embryo's F, which afterwards turn to so many roundish Seeds K, shut up in a Husk G, which before was the Flower-Cup. To these Marks must be added, That the Flowers are ranged very close into a Spike, and that their *Stamina* do not resemble the *Os Hyoides*, as in the *Horminum*, *Sclarea*, and *Salvia*.

The Species of this Plant are,

1. *Brunella latifolia*, Italica, flore carneo. *Barr. Icon.* Broad-leav'd Italian Self-heal, with a flesh-colour'd Flower.

2. *Brunella major*, folio non dissecto. *C. B. Pin.* 26c. The greater Self-heal, with an uncut Leaf. *Brunella flore minore, vulgaris.* J. B. 3. 428. *Brunella*. *Dod. Pempt.* 136.

From a small Root, shooting down into the Earth obliquely, and furnished with several large Fibres, rise Stalks nine Inches and even

a Foot high and better, square, rough, branched, creeping from the Joints that lye under the inferiour Fibres. The Leaves which adhere to longish Foot-stalks, are like the Leaves of the *Majorana Sylvestris*, or the *Ocimum*, but larger, rough, notched at the Edges with little Teeth that are scarce discernable. The Flowers are ranged on the Tops of the Stalks and Branches, with thick-set Wherles in the Form of a large Spike, being crested and purple. Each of the Wherles composed of six Flowers, have under them a Couple of Leaves opposite to one another, much unlike those upon the Stalk, triangular, embracing the Stalk with their broad Bottom, ending in a sharp Point, hollow, membranous, and just such as you see on the common *Sclarea*. Every one of the Leaves embrace three Flower-Cups in their Bosom, which are rough, divided chiefly into two Jaggs, the upper and the under, of which the under is again cut into two sharp Segments.

It thrives every where in Meadows; It flowers somewhat late with us in *England*, rarely before the middle of *June*. It varies in the white and flesh-colour of its Flower.

Casalpinus has with more Reason and Exactness, compared the Leaves of this Plant to those of *Basil*, than *Dodonæus* to those of *Mint*. *C. Baubinus* was mistaken in reducing to this Species the *Prunella*, which *Pena* and *Lobel* observed in the Woods of *Gramont*, at *Montpelier*, betwixt *Kermes* and *Ledum*: For these Authors affirm, that their Plant has dented Leaves, like those of the wild *Valerian*; and therefore *M. Magnol* had Reason to range this Species of *Brunella* under the *Brunella laciniato folio*. *C. Baubinus* has not quoted *Lobel* fairly upon this Plant; for the *Symphytum Petraeum* of *Lobel*, is not different from the *Brunella folio laciniato*, and the *Symphytum Petraeum*, *Consolida minor* *Matthioli* *Lobel* is the same with that which we are speaking of; as well as the *Brunella*, *Symphytum Petraeum* *Lobel*. So that *C. Baubinus* relates the Synonymous Names of *Camerarius Hort.* It would seem that this last distinguished the same Plant into two Species; but it is easie to observe, that he was not mistaken here; for he grants, that what he had called *Consolida minima*, is the same with *Prunella flore purpureo*. This Plant reddens blue Paper, and is of an herby, stiptick, and glutinous

nous Taste; mix'd with a very small Degree of Bitterness; from whence we may suppose, that the acid Part of the natural Salt of the Earth, is in this Plant disengaged from a great Part of the sharp and acrimonious Part, and that being united with Abundance of Earth and Sulphur, it has produced a Salt which has an Affinity to the Nature of *Alum*. This Mixture of Principles in the *Self-heal*, makes it a vulnerary, astringent and cleansing Herb, and is an Ingredient in vulnerary Potions. *J. Bauhinus* commends a Lotion of it for Wounds made by Fire Arms. It is prescribed in *Pri-fans*, in *Broths*, and in *Apozems*, for Spitting of Blood, for Urine dyed with Blood, for the too great Abundance, or over Frequency of Women's Courses, for the *Bloody Flux*, and in fine, for all Sorts of *Hemorrhagies* or *Fluxes* of Blood. It is used by way of Injection in deep Wounds, and by way of *Glisters* in the *Bloody Flux*. It is made use of to bathe the Gums of such as are *Scorbutick*, by adding to it some Grains of *Mastick*. The distill'd Water of the same Plant, and the Conserve of its Flowers, may serve for the same Purposes. *Casalpini* made use of the Leaves doubled, in order to suppurate Boils, and to heal Wounds; and he made use of the Juice for the *Ulcers* of the Mouth, and in great Pains of the Head: He bathed the Temples with it, after he had mixed with it the Oil of *Roses* and *Vinegar*. *J. Bauhinus* added to it a little *Rose-water*, and ordered those who had been bit by any venomous Creature, to drink the pure Juice of it.

3. *Brunella folio non dissecto, flore albo*: *C. B. Pin. 261. Self-heal, with an uncut Leaf, and a white flower.*

4. *Brunella major, folio non dissecto, flore purpurascente. The greater Self-heal, with an uncut Leaf, and a white flower. H. R. Par.*

5. *Brunella cæruleo, magno flore. C. B. Pin. 261. Self-heal, with a large blue flower. Prunella magno flore, folio non laciniato. J. B. 3. 429. Prunella 1. Clus. Hist. XLIII.*

It differs from the greater or common *Self-heal*, by its thicker Heads, by its Flowers which are indeed alike in Shape, but much greater, and not of a disagreeable Smell, of a looser Belly, and a Crest that is of a deeper Purple, tho' the Colour sometimes varies. It has a black Root, furnished with a great ma-

ny thickish and whitish Fibres, and enlarging it self every Year by new Shoots.

I have observed this Species in rising and grassy Places about *Mentz*, *Geneva*, and elsewhere. *Ray.*

The Description of the *Prunella cærulea, altera, sive tertia Tragi*, does not well agree to our Plant. *Tragus* distinguishes it by its Smell, which is more agreeable than that of the common *Self-heal*, by its Leaves, and by its Branches, which are stiffer and of an Ash-colour. But ours is distinguished chiefly by the Bigness of its Flower, as well as the Second observed by *Clusius*.

This is the Reason why *J. Bauhinus* was in the Right, to reduce it to the Plant we are speaking of, viz. the *Prunella Sexta Tragi*, tho' the Comparison that Author makes of its Flower with that of the *Stachas* is not just.

6. *Brunella magno flore albo. C. B. Pin. 261. Self-heal, with a large white flower.*

7. *Brunella flore magno, carneo. H. Edinb. Self-heal, with a large fleshy-colour'd flower.*

8. *Brunella Pyrenaica, maxima, flore majore. The greatest Pyrenean Self-heal, with a larger flower.*

9. *Brunella Lusitanica, flore & spica majore. H. R. Par. 67. Portuguese Self-heal, with a greater flower and spike.*

10. *Brunella Hyssopifolia. C. B. Pin. 261. Hyssop-leav'd Self-heal. Prunella angustifolia. J. B. 3. 430.*

11. *Brunella Hyssopifolia, flore albo. Hyssop-leav'd Self-heal, with a white flower.*

12. *Brunella folio laciniato. C. B. Pin. 261. Jagged-leav'd Self-heal. Brunella secunda, flore purpureo. Clus. Hist. 43.*

13. *Brunella folio laciniato, flore albo. H. R. Par. Jagged-leav'd Self-heal, with a white flower. Prunella flore albo, parvo, folio laciniato. J. B. 3. 429. Prunella secunda, non vulgaris. Clus. Hist. XLIII.*

From a fibrous Root this Plant has many Leaves, some a Palm high, oblong, not an Inch broad, hairy, resting upon long Foot-stalks; two of them are cut into large Jaggs beyond the middle of the Foot-high Stalk, representing a *Harts-Horn*, and other two at the Head of the Flowers, which is an Inch and a half long, and one Inch broad, having fewer

fewer Jaggs. The Flowers are contained between gaping Coats, white, and sometimes red, coming pretty much out.

Clusius says, that it loves to grow in herby and grassy Places, and in Places which are watered by Rivers. It flowers sooner than the *Prunella flore magno*, viz. in May, and sometimes not till June.

14. *Brunella folio laciniato, flore roseo.*
H. R. Par. Jagged-leav'd Self-heal, with a Rosey flower.

The Word *Brunella* is of German Original. This Plant was thus called then from the *Causus Ungaricus*, or the Inflammation of the Jaws and Throat, which the Germans call *Die Braune*. Others derive it from the *Squinsy*, which some call *Brunella*, because it cures that Distemper.

The Leaves and Flowers are most in use in Physick. It warms and dries (it is bitterish) cleanses, consolidates, and is a vulnerary Plant. Its chief Use is in the Wounds of the Lungs, and coagulated Blood. Outwardly in Wounds, and most frequently in the *Squinsy*, and other Affections of the Mouth and Jaws, for a *Gargarism*.

Crollius assures us, That the dry Root rubbed upon an aking Tooth till it fetches Blood, will ease the Pain, by a magnetical Virtue, if it be thrust into a bored Willow, and the Hole shut up by a Piece of Willow.

It is of great Efficacy in fresh Wounds, or in putrid Ulcers, either of the Fundament, or of the Privy Parts.

I observed a certain Country Fellow boiling *Self-beal* and *Fluellin* in Wine, and found that with this he had cured a Pissing of Blood, which had baffled all other Remedies. *Sole-nander Consil. Med. 27.*

It is hardly credible how effectual a Remedy *Self-beal* is, either raw or boil'd, both in burning and in hec tick Fevers. *Simon Paulus.*

The Leaves bruised and applied, or their Juice used to wash and bathe the Part affected, is a sovereign Remedy in all manner of Ulcers and Sores, whether they be new and fresh, or old and inveterate, nay even Gangrenes and *Fistula's*; and the same made into a Lotion, with some Honey of *Roses* and *Alum*, cures all Sores of the Mouth and Gums, be they never so foul or of long continuance; it likewise eases such as have any broken Bone in their Body, or any Dislocation of a Joint, both used inwardly and applied outwardly. An Ointment made of the Leaves of *Bugle*, *Scabious*, and *Sanicle*, bruised and boiled in *Hog's-Lard*, till the Herbs be dry; and then strained out and kept in a Pot, for such Occasions as shall require it, is found to be of so singular Use for all Sorts of Hurts of the Body, or any Part of the Body, that it were well if all Gentlewomen and Ladies, who are so charitable as to Administer to Poor People in their Ailments, or to their own Families and Neighbours, it were well, I say, if those good Ladies had always of this Ointment by them; because it has done, and will do so much good. For in *France* and *Germany*, it is a common Proverb, That they need neither Physician to cure their inward Diseases, nor Surgeon to assist them in any Wound or Sore, that have this *Bugle*, (or the *Self-beal*, for with them they are accounted one and the same Herb) and *Sanicle* at hand by them, to use when they have Occasion. *Parkinson.*

S E C T. II.

Of Herbs with a labiated Flower of one single Leaf, whose upper Lip is hollow like a Spoon.

TABLE LXXXVI.

GENUS I.

Lamium, Arch-angel, or Dead-Nettle.

Arch-angel, is a Plant with a labiated Flower of one single Leaf, whose upper Lip A, is hollow like a Spoon; but the under one B, cut into two Segments, in the Form of a Heart, and both end in Chaps C, which are brim'd or edged DD. Out of the Flower-Cup F, which is fistulous, and cut into five Segments, rises the Pointal G, fixed like a Nail into the hinder Part of the Flower B, and attended as it were with four Embryo's, which afterwards turn to so many triangular Seeds H, shut up in a Husk, which was the Flower-Cup before.

The Species of Arch-angel are,

1. *Lamium purpureum, foetidum, folio subrotundo, five Galeopsis Dioscoridis.* C. B. Pin. 230. Purple stinking Arch-angel, with a roundish Leaf, or the Galeopsis of Dioscorides. *Galeopsis, five Urtica iners, folio & flore minore.* J. B. 3. 523. *Urtica iners, altera.* Dod. Pempt. 153.

This is the *Lamium rubrum* of Gerarde, and the *Lamium vulgare, folio subrotundo, flore rubro* of Parkinson.

From a small fibrous Root, not creeping, it sends up square, hollow Stalks, almost smooth, pretty large, branched near the Bottom, then begirt with one or two Pairs of Leaves, after that, almost naked at Top; half a Foot high, and feeble. On the Tops of the Stalks grow Flowers in thick-set Whorles, being crested, small, purple, with a Lip marked with deep-colour'd Spots; The Flower-Cups are short, open, striped, sitting, divided into

five long narrow Jaggs or Prickles, containing at Bottom four oblong, angular Seeds, which are reddish and shining when ripe. The Leaves resemble the Leaves of Nettles, only they are smaller, and shorter, soft, snipped about the Edges, and stand upon Foot-stalks half an Inch long. The Smell of the whole Plant is stinking and disagreeable.

It begins to flower in the Beginning of the Spring, and continues in flower during the whole Summer.

2. *Lamium purpureum foetidum, folio subrotundo, minus.* H. L. Bat. Purple stinking Arch-angel the lesser, with a roundish Leaf.

3. *Lamium folio oblongo, flore rubro.* Park. Theatr. 606. Arch-angel, with an oblong Leaf and a red flower. *Lamium purpureum non fœrens, folio oblongo.* C. B. Pin. 231. *Galeopsis five Urtica iners, flore purpurascente, majore, folio non maculato.* J. B. 3. 521.

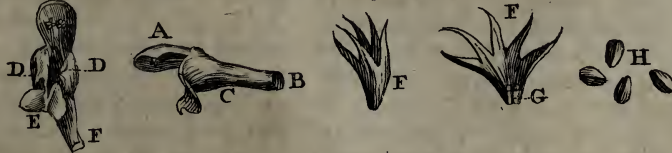
This Dead-Nettle, or Arch-angel, hath several square Stalks, somewhat hairy; at the Joints whereof, at a good distance from one another, grow two dark green Leaves, dented round the Edges, opposite to one another, the lowermost upon long Foot-stalks, but without any towards the Tops, which are somewhat round, yet Pointed at the Ends, and a little crumpled as it were, and hairy. Round the upper Joints, with the Leaves which there grow close together, grow sundry gaping Flowers, of a pale reddish Colour, somewhat like Berony Flowers; after which come the Seeds, three or four set together in a Husk. The Root is small and thready, perishing every Year, the whole Plant hath a strong Scent, but not stinking.

8. *Lamium vulgare, album, five Archangelica, flore albo.* Park. Theatr. 604. White Arch-angel, or Dead-Nettle. *Lamium album, non fœrens, folio oblongo.* C. B. Pin. 231.

Galeopsis

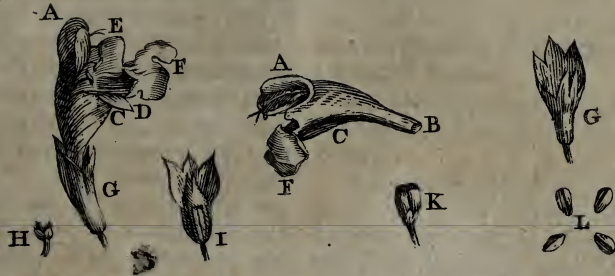
Lamium. Arch-angel or Dead-Nettle.

Fig. 1. A



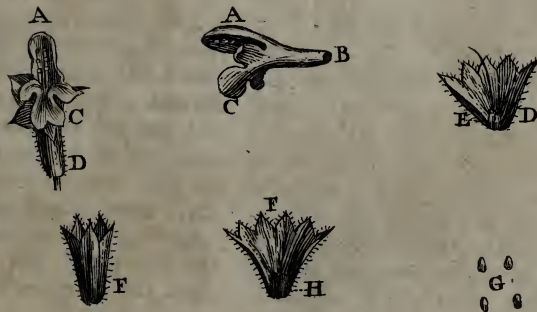
Moldavica. Baulm.

Fig. 2.



Ballote.

Fig. 3.



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Galeopsis five Urtica iners, floribus albis. J. B. 3. 322. *Urtica iners, five Lamium primum.* Dod. Pempt. 153.

It stands upon a great many fibrous Roots, and propagates it self far and wide by many shoots creeping under Ground, after the manner of *Mint*, and by Knots that afterwards Shoot down Roots into the Earth. From thence rise Stalks a Foot or half a Yard high, square, pretty thick, but slenderer and feebler towards the Bottom, hardly able to support themselves, empty, somewhat hairy, branched, with Joints set at a good distance from one another, and purplish towards the Bottom, in open Places. The Leaves, which grow in Pairs, over-against one another, are very like the Leaves of Nettles; and those that grow at the Bottom of the Stalks stand upon long Foot-stalks, but such as grow on the Tops of the Stalks are rough, with a short and harmless Down. The Flowers, which encompass the Stalks in Whorles, are white, pretty large, crested, on the Out-side pale, rather than snowy, with a pale Lip, not spotted, cut into two Segments, with a large Hood, on the outside hairy, especially about the Edges, hiding within four little *Threads*, of which two are long, and two short. The *Chives* of the *Threads* with black Edges quite round, do somewhat resemble the Figure of 8. The Stile or Poinral, which is very small and divided into two Parts, stands hard by the *Threads*, and rises out of the very Flower it self, and not out of the Middle of the *Threads*, as is usual in others of this Kind. The Flower-cup, which is also the Seed-vessel, is large, gaping, striped, sitting, and divided into five oblong, narrow Segments, which end in small and sharp, but harmless Prickles. At the Bottom of the Stalk four Seeds joined together succeed to each Flower. The Flower-cups come forth from the Wings of the Leaves single. The Smell of this Plant is not very uneasy.

It flowers with us in the Month of *April*, and the beginning of *May*, by Hedges, and in ruinous and thicketty Places.

The Moderns are of Opinion, that the white Flowers of *Arch-angel*, have a Quality of stopping the *Flux* of *Whites* in Women; and therefore some do prepare a Conserve of these, to be taken for that Distemper every Day.

5. *Lamium alba linea notatum.* C. B. Pin. 231. *Arch-angel* marked with a white Line. *Lamium montanum Campoclaresium.* Col. Part. 1. 192. This is the *Lamium Plinii montanum Columnæ* of *Parkinson*.

It produces many square, leaning, reddish Stalks, upon which grow rough Leaves, resembling those of Nettles, soft, like the *Lamium vulgare albo flore*, or the *Ballote*, but less by one half, dented with round Cuts, having a white Line running through the Middle of them, and a straight Nerve surrounding them on both Sides; which Line remains conspicuous in the dry Plants for ten Years: When they are rubb'd, they send forth an uneasy Smell, but less disagreeable than in the common Dead-Nettle. The Flowers, which are of a Colour betwixt white and red, grow at the Tops of the Joints. It flowers in the Spring, and comes to Perfection in the Summer.

It grows in great Plenty beside Hedges, and among Briars, in *Italy*, and in the South of *France*.

F. *Columna* observed the Variety of this upon the Hills about *Tibur*, with shorter Leaves, narrower and sharp-pointed, divided round the Edges by deep Cuts, as in the *Chamaedrys*, with a narrower white Line running along the Middle of it.

6. *Lamium Parietariæ facie.* Moris. H. R. Bles. Wellitory-like *Arch-angel*.

7. *Lamium folio caulem ambiente, minus.* C. B. Pin. 231. *Arch-angel* the lesser, with a Leaf encompassing the Stalk. *Galeopsis, five Urtica minor, iners, folio caulem ambiente.* J. B. 3. App. 853. *Morsus Gallinæ, folio Hederule alterum.* Lob. Icon. 463. This is the *Alfina Hederule folio major* of *Parkinson*.

This Plant rises a Palm and a half high, with square, feeble Stalks, sometimes standing upright, but oftner lying along upon the Ground. The Leaves that first break forth have Foot-stalks, are like the Leaves of the *Galeopsis minor*, almost round, and jagged: Others rise on the upper Parts of the Stalks, in Pairs, adhering immediately to the Stalks, encompassing the Stalk almost in the same manner that the Leaves of the *Perfoliata* do, being round, hairy, deeply notched, curled, with a less disagreeable Smell than the other Species of the *Galeopsis*, and no remarkable Taste. The wherled Flowers that grow a-

mong the Leaves at the Knots, and encompass the Stalks and their Branches, are purple, and gaping out of oblong, hairy Flower-cups, that are divided into many Segments. It shoots down into the Earth a single, stiff, and fibrous Root.

It grows very commonly in open Fields and Gardens.

8. *Lamium orientale, nunc moschatum, nunc foetidum, magno flore.* Oriental Archangel, sometimes sweet-smelled, and sometimes stinking, with a large Flower.

9. *Lamium orientale, foliis eleganter lacinariis.* Oriental Archangel, with Leaves curiously jagged.

10. *Lamium orientale, incanum, flore albo, cum labio superiori crenato.* Oriental hoary Archangel, with a white Flower, whose upper Lip is notched.

11. *Lamium orientale, incanum, flore purpureascente, cum labio superiori Crenato.* Oriental hoary Archangel, with a purplish Flower, whose upper Lip is notched.

12. *Lamium orientale, album, latifolium altissimum.* The tallest, white, oriental broad-leaved Archangel.

We must exclude from this Genus, *Lamium maximum, sylvaticum foetidum.* C. B. Pin. 231. which is a Species of *Galeopsis*. *Lamium maximum, sylvaticum, alterum.* C. B. Pin. 231. *Lamium montanum, Melisse folio.* C. B. Pin. 231, which must be brought to the *Melisse*. *Lamium folio oblongo, luteum.* C. B. Pin. 231, which is a Species of *Galeopsis*. *Lamium maculatum.* C. B. Pin. 231, also a Species of the *Galeopsis*. *Lamium peregrinum sive Scutellaria.* C. B. Pin. 231; which is a Species of *Cassida*.

The Species of Arch-angels may be known, even when they are without Flowers and Fruit, by their stinking Leaves, resembling the Leaves of Nettles; but these special Marks do likewise agree to the *Galeopsis*.

The Name *Lamium* was first taken from *Pliny*, who after he had spoken of Nettles, says, that the Nettle that does not sting, and is not hurtful, is called *Lamium*. It is called *Urtica iners, non mordax, & mortua; quia foliis non mordacibus, sed mitissimis sit*; and by some *Arch-angelica, ab eximiis viribus*; and *Lamium, fortasse à figura florum, veluti cucullo laceratam Lamiam quandam representante*.

The Herb bruised and applied, is thought to have a Virtue of discussing any Tumours

whatsoever, as also of allaying Inflammations, healing Bruises, putrid Ulcers and Wounds.

For the *King's-Evil*, Take one Handful of the green Herb (white Arch-angel) warm it betwixt two warm Bricks, and apply it to the Tumour. It will open it very much in the Space of one Night. When it is open, add the following Mixture. Take six Spoonfuls of *Omphacium*, and *May-butter* to the Quantity of a Walnut, mix it, and put it upon black Wool, that has been moistened with *Neats-foot Oil*. In the mean while, let the Patient drink *Broom-flower Water* every Day in the Morning, and at four a Clock Afternoon. The Decoction of red Arch-angel, is commended in the Dysentery, or Bloody Flux.

The Arch-angels are somewhat hotter and drier than the stinking Nettles, and are more appropriated, and with better Success used for the Obstructions and Hardness of the Spleen than they: They are to be used inwardly, by drinking the Decoction of the Herb in Wine, and afterwards applying the Herb hot, or the Decoction, to the Region of the Spleen, as a *Cataplasm*, or Fomentation with Spunges. The Flowers of the white Arch-angel, are preserved or conserved for daily Use; and the distilled Water of them is used to stay the Whites, and that of the red to stop the ordinary Courses when too violent: But this distinguishing of the Virtues by the Colours, looks a little too superstitious. This same distilled Water, is thought to make the Heart merry and chearful, and to drive away Melancholy, and to quicken and enliven the Spirits. It is likewise commended against *Quartan Agues*. It stops bleeding at the Mouth or Nose, if the Herb be bruised and applied to the Nape of the Neck.

TABLE LXXXVI. Fig. 2.

GENUS II.

Moldavica, Baulm.

Moldavica, or Baulm, is a Plant with a labiated Flower of one single Leaf, whose upper Lip A, is somewhat arched, cut into two Parts and turning up; the under Lip also is divided into two Parts, and both end in

in Jaws C, that are bordered DE. Out of the fistulous Flower-cup G, which is generally cut into two unequal Lips, rises the Pointal H, fixed like a Nail into the hinder Part of the Flower B, and attended as it were by four Embryo's, which afterwards turn to so many Seeds K, which are oblong L, shut up in the Husk I, which before was the Flower-cup.

The Species of *Moldavica* are,

1. *Moldavica Betonicæ folio, flore cæruleo.* *Moldavica*, with a Betony Leaf, and a blue Flower. *Melissa peregrina folio oblongo.* C. B. Pin. 229. *Melissa Turcica multis dicta.* J. B. 3. Part. 2. 234. *Melissa Moldavica, flore cæruleo.* Eyst. *Melissa Turcica.* Tabern. Icon. 355.

It has both the Smell and Taste of *Melissa* or *Baulm*; but the Leaves, which grow upon branchy, square, reddish Stalks, a Cubit, and a Cubit and a half high, both longer and narrower than the Leaves of common *Baulm*, being an Inch and a half, and two Inches long, and scarce half an Inch broad. *Lobel* compares them to the Leaves of *Chamadrys* or *Scordium*, being notched round the Edges, and ending in a Point. The Flowers grow round the Joints in Wherles, being blue or white, having a Lip cut in two, and a short *Cowl* cut in two, and consisting of two small Wings, and coming out of radiated prickly Flower-cups. The black Seed is marked with a little white Point, while it is yet green.

This Plant was first brought to these Parts from *Moldavia*, where it grows wild.

Parkinson observes, That the Seeds of the white or blue Sort sown, never change the Colour, but the blue flowered Seed, always produces a blue flowered Plant, and the white flowered Seed, always produces a white flowered Plant; which he affirms he had found by Experience in his own Garden for above Twenty Years; and therefore he contends these two Varieties, are two distinct Species; and that not without Reason.

2. *Moldavica Betonicæ folio, flore purpureo-cæruleo.* *Moldavica*, with a Betony Leaf, and a purplish blue Flower. *Melissophyllon Turcicum, flore purpureo-cæruleo.* Lob. Icon. 515.

3. *Moldavica Betonicæ folio, flore albo.*

Moldavica, with a Betony Leaf, and a white Flower. *Melissophyllon Turcicum, flore albo.* Lob. Icon. 515. *Melissa Moldavica, flore albo.* Eyst.

4. *Moldavica Americana, trifolia, odore gravi.* American three-leaf'd *Moldavica*, with a heavy dull Smell. *Melissa foriè Canarina, triphyllis, odorem Camphoræ spirans penetrantissimum.* Almag. Bot. 401, & Phytog. Tab. 325. Fig. 5.

5. *Moldavica Oretica, saxatilis, Lamii folio, flore maximo.* Candy-Rock *Moldavica*, with an Archangel Leaf, and a very large flower.

6. *Moldavica orientalis, Hederæ terrestris folio.* Oriental *Moldavica*, with a Ground-Ivy Leaf.

7. *Moldavica orientalis, Betonicæ folio, flore magno, violaceo.* Oriental *Moldavica*, with a Betony Leaf, and a large violet Flower.

8. *Moldavica orientalis, salicis folio, flore parvo, cæruleo.* Oriental *Moldavica*, with a Willow Leaf, and a small blue flower.

9. *Moldavica orientalis, salicis folio, flore parvo, albo.* Oriental *Moldavica*, with a Willow Leaf, and a small white flower.

10. *Moldavica orientalis, minima, ocimī folio, flore purpurascenē.* The smallest oriental *Moldavica*, with a Basil Leaf, and a purplish flower.

11. *Moldavica orientalis, flore minimo, calyce vesicario.* Oriental *Moldavica*, with a very small flower, and a flower-Cup like a Bladder.

The Virtues are much the same, as in the *Melissa* or *Baulm*, which you may consult under that Genus.

TABLE LXXXVI. Fig. 3.

GENUS III.

Ballote.

Ballote, or *Barbard Hore-bound*, is a Plant with a labiated Flower of one single Leaf, whose upper Lip A, is hollow like a Spoon, but the under Lip divided into three Parts, the middle one being the largest, and

shaped like a Heart. Out of the Flower-cup D, rises the Pointal E, fixed like a Nail to the hinder Part of the Flower B, and attended as it were by four Embryo's, which afterwards turn to so many Seeds H, which are oblong G, shut up in the fistulous, pentagonal and quinquepartite Husk, which was the Flower-cup before.

TABLE LXXXVII. Fig. 1.

GENUS IV.

Galeopsis, Stinking Dead-Nettle.

Galeopsis, or Stinking Dead-Nettle, is a Plant with a labiated Flower of one single Leaf, whose upper Lip A B, is hollow like a Spoon, but the under one C G, is divided into three Segments, the Middle being large, and either sharp or blunt. Out of the Flower-cup E, rises the Pointal F, fixed like a Nail into the hinder Part of the Flower D, and attended as it were by four Embryo's, which afterwards turn to so many oblong Seeds I, shut up in the funnel-like and quinquepartite Husk H, which was the Flower-cup before.

The Species of this Plant are,

1. Galeopsis procerior, foetida, spicata. The taller, stinking spiked Dead-Nettle. *Lamium maximum, Sylvaticum, foetidum*. C. B. Pin. 231. Galeopsis sive Urtica iners, magna fetidissima. J. B. 3. App. 853. *Urtica Herculea*. Tabern. Icon. 536.

It rises with a Stalk, a Cubit high, and sometimes higher, square and thick, having many Joints towards the Root, out of which spring Leaves not unlike the Leaves of Nettles, notched or snipped round the Edges like them, but much larger, and often exceeding the Largeness of one's Palm, very rough indeed, but not burning. From the Middle of the Stalk up, at every Knot, there arise Flowers in Sixes, in Eights, and sometimes in Tens, not opening themselves all at once, but successively, much longer than the Flowers of *Lamium*, being of a deep Red, and almost Purple, gaping like a Helmet, with the under Lip (whose Edges are jagged) divided into two Parts, and having a great many little Beards at the Sides, and the inner Part adorned with purple and white Lines, with four Stamina or Threads, and a Pointal concealed under the Helmet; with a dull and unpleasant Smell, as the whole Plant has, if it be broken, and a disagreeable and bitter Taste. The Seeds are contained in jagged Vessels, like those of the *Molucca*. The Root is thick, fibrous

I know but one Species of *Ballote*, or *Bastard Hore-hound*, which is,

Ballote Mauthiol. 825. *Marrubium nigrum foetidum*, *Ballote* Dioscoridis. C. B. Pin. 230. *Marrubium nigrum* sive *Ballote*. J. B. 318.

Ballote flore albo. White flower'd *Bastard Hore-hound*.

The Stalks, which are many from the same ligneous perennial Root, are a Cubit, and sometimes two Cubits high, rough with a short Down, square, empty, branched, reddish, adorned with Leaves at the Joints that grow in Pairs, opposite to one another, like those of *Baulm*, or rather red *Arch-angel*, but rounder and blacker, hairy and soft to the Touch, and shrivelled. The Flowers grow in Wherles upon the Stalk, several of them growing upon the same common Foot-stalks, which comes out of the Bosom of a Leaf, crested of a faint purple Colour, and striped within with deeper Lines. The channelled oblong Flower-cups, that are parted into five sharp Segments, contain each four small Seeds, and grow black when they are ripe. They come out from the same Bosoms of the Leaves; with the Flowers and small Branches. It has the stinking Smell of Dead-Nettle.

It flowers in Summer, in Ruins and Hedges.

The Leaves of this Plant, says *Dioscorides*, rubbed with Salt, will cure the Bite of a Dog: If they are put into warm Ashes to become limber, they cure hard Swellings and Inflammations. Mixed with Honey, they cleanse purrid Ulcers. *Pliny* says the same Things, in almost the very same Words.

The Decoction of *Ballote*, is a most Sovereign Remedy in *Hypochondriacy* and *Histerick* Fits. *D. Bowle*.

Galeopsis. Stinking. Dead Nettle.

Fig. 1.



Fig. 2. Stachys. Base-Horehound.

Pag. 311.





fibrous and perennial, growing bigger every Year, and producing new Shoots.

It grows in great Plenty in the woody Mountains, next to the Castle of Greben in Hungary, above *Varasdin*, where *Clusius* found it flowering in May.

2. *Galeopsis procerior*, caliculis aculeatis, flore purpurascente. The taller, stinking Dead-Nettle, with prickly Flower-Cups, and a purplish Flower. *Urtica aculeata, foliis serratis*. C. B. Pin. 232. *Cannabis sylvestris quorundam*, *Urtica inerti affinis*. J. B. 3. App. 584. *Cannabis sylvestris, spuria, altera, Lami-um quorundam*. Lob. Icon. 527. Bastard Hemp.

The single Root takes fast hold of the Earth, by its numerous Fibres or Strings; The Stalk is likewise generally single, a Foot high, square, empty, branched, rough with stiff Hairs. The Leaves grow upon the Stalk in Pairs, opposite to one another at distances, shap'd almost like Nettle-Leaves, jagged round the Edges, hanging at Foot-stalks half an Inch long, veiny, with Nerves sticking out on the back Side of the Leaves, in which they really resemble the Leaves of Hemp. The Flowers are ranged into thick Wherles upon the Tops of the Stalks and Branches, being crested, and purplish, and grow in Flower-Cups that are striped, and expanded, with Borders cut into five little sharp Prickles. To each Flower succeed five Seeds joined together, pretty large, of a dark brown Colour, which quickly ripen, and immediately fall, upon the withering of the Flowers.

It flowers in Summer, and grows but too plentifully among the Corn.

3. *Galeopsis procerior*, caliculis aculeatis, floribus candidis. Taller stinking Dead-Nettle, with prickly Flower-cups, and white Flowers. *Urtica aculeata, foliis serratis, floribus candidis*. C. B. Pin. 232.

4. *Galeopsis altera*, caliculis aculeatis, flore flavescente. Another stinking Dead-Nettle, with prickly Flower-Cups, and a purplish Flower. *Urtica aculeata, foliis serratis, altera*. C. B. Pin. 232. *Cannabis sylvestris, spuria, tertia*. Lob. Icon. 528.

The Leaves of this, are much paler than the Leaves of the former: But the chief Difference consists in the Flowers, which are much larger, and of a yellowish Colour. A large purple Spot, covers almost the whole Lip.

This abounds among Corn, growing in cold and moist Grounds, viz. In the mountainous Part of *York-shire*.

The Plant described by *Parkinson*, agrees with this in the Colour of the Flowers, but differs in the Size.

5. *Galeopsis angustifolia*, flore variegato. Narrow-leav'd stinking Dead-Nettle, with a variegated Flower. *Cannabis spuria, angustifolia, variegato flore, Polonica*. Barr. Icon.

6. *Galeopsis parula segetum*, flore purpurascente. The open or expanded stinking Dead-Nettle, with a purplish Flower. *Sideritis arvensis, angustifolia, rubra*. C. B. Pin. 233. *Ladanum segetum, flore rubro quorundam*. J. B. 3. 855. *Abssum Galeni, flore purpureo*. Tabern. Icon. 541.

This has a white ligeous Root, spreading Abundance of Fibres quite round. The Stalk is a Foot high, single, square, somewhat hairy, purplish, and branched. The Leaves stand by Pairs upon short Foot-stalks, over-against one another, being narrow, oblong, of a dark green Colour, somewhat hairy, ending in a Point, dented round the Edges, and are of a drying Taste. The Flowers are ranged upon the Tops of the Stalks and little Branches, in Wherles, being crested, oblong, of a purple Colour, with a Lip marked with two whitish Spots, and a little within bedeck'd with little Spots tending to yellow, standing in a short, open Flower-cup, divided into five Parts, the Segments turning into little Prickles. With respect to the Size of the Plant, the Flower is large and beautiful.

It is to be met with every where plentifully among the Corn. It flowers from *Midsummer* to *Autumn*.

7. *Galeopsis patula segetum*, flore albo. Open stinking Dead-Nettle, with a white Flower. *Ladanum segetum flore albo quorundam*. J. B. 3. Append. 855.

8. *Galeopsis alpina*, *Betonice folio*, flore variegato. Mountain stinking Dead-Nettle, with a Betony Leaf, and a variegated Flower. *Pseudostachys Alpina*. C. B. Pin. 236. *Salvia Alpina*. Tabern. Icon. 372.

9. *Galeopsis palustris*, *Betonice folio*, flore variegato. Marsh stinking Dead-Nettle, with a Betony Leaf, and a variegated Flower. *Stachys palustris fetida*. C. B. Pin. 236. *Galeopsis angustifolia fetida*. J. B. 3. App.

854. *Clyminum minus Dalechampii*. Lugd.

1537. *Clown's All-heal*.

It has a jointed Root, creeping, uneven, and as it were strumous with Tumours and Knobs.

The Stalks are three or four Cubits high, somewhat red, hairy, rough, square, empty, and produce Leaves in Pairs, opposite to one another, like the Leaves of the spiked purple Loose-strife, narrow, pointed, hairy, soft, except the reddish Rib on the back Side, jagged round the Edges, with the heavy Smell of *Galeopsis*, and of a bitterish Taste. The Flowers are spiked, composed of sundry Wherles, each of which is cowed, purplish, with a variegated Lip. In the Flower-cup, (which is short, and cut into five sharp Segments) there succeed four black, clear, three-corner'd Seeds.

It grows every where by River Sides, and in watery Places.

Our *Gerarde* having learnt the Efficacy of this Plant, in curing of Wounds, by the Experience of a certain Reaper in *Kent*, who had severely wounded his Leg with his reaping Hook, gives it wonderful Encomiums. He laid the bruised Leaves with *Hog's-Lard* upon green Wounds.

Hence it had its Name of *Panax coloni*.

Herman says, that a Syrup made of this Plant, is an excellent Remedy for Hoarseness.

10. *Galeopsis*, five *Urtica iners*, flore luteo. *J. B.* 3. 323. *Sinking Nettle*, or *Dead-Nettle*, with a yellow Flower. *Lamium folio oblongo, luteum*. *C. B. Pin.* 231. *Urtica iners, tertia, five Lamium luteo flore*. *Dod. Pempt.* 153.

The Root, which is uneven, shoots down into the Earth many large Fibres. From thence arise long, square, feeble, hollow Stalks, clothed with Leaves in Pairs, opposite to one another at distances, greener, longer and narrower than in the other *Dead-Nettles*, and standing upon long Foot-stalks. The Flowers surround the Stalks at the Joints in Wherles, being yellow, slightly, with a large Hood hairy about the Borders, containing four whitish Stamina or Threads, with their yellow Chives, and a two-horned purple Pointal coming out of the Centre of the Flower-cup, in the Middle of four Seeds joined together. The Lip of the Flower is divided into three Parts, the two lateral Ones being marked with purplish

Spots and Lines, and the middle One with Saffron Spots and Stripes.

11. *Galeopsis lutea*, amplioribus foliis maculatis. *Yellow Sinking Dead-Nettle*, with larger spotted Leaves.

12. *Galeopsis annua Hispanica*, rotundiore folio. *Spanish annual Sinking Dead-Nettle*, with a rounder Leaf. *Ocimum valentinum*. *Clus. Hist.* 42. *Marrubium nigrum, rotundifolium*. *C. B. Pin.* 230.

It grows a Foot high, with quadrangular Branches, covered over with Hair or Down. The Leaves are like the Leaves of the *Ocimum medium* in Shape and Size, and of an astringent Taste. Round the Tops of the Branches come forth the Flowers, ranged in Order like the Flowers of *Marrubium*, and resembling those of the *Ocimum* or *Basil*, in prickly Seed-vessels. The Seed is black, as in *Marrubium* or *Hore-bound*. The Root resembles the Roots of *Nettle* or *Archangel*.

Tho' the Leaves of this Plant, says *Clusius*, are furnished with many Veins, yet they are much softer than the Leaves of *Hore-bound*, not quite so thick, and have nothing of agreeable in their Smell.

It grows in great Plenty about the Rivulets, drawn into the City of *Valentia* in Spain, from the River of *Guadalquivir*, or white River, where *Clusius* observed it in Flower and full of Seed, about the Beginning of April; and never saw it any where else.

12. *Galeopsis Hispanica*, frutescens, *Teucrii folio*. *Spanish frutescent Sinking Dead-Nettle*, with a Tree-Germander Leaf. *Teucrium regium, latifolium, flore albo*. *H. R. Par.* *Lamio arboreo, perenne di Candia*. *Zan.* 112.

13. *Galeopsis cretica*, frutescens, villosa, *Teucrii folio*. *Frutescent, hairy Sinking Dead-Nettle of Candy*, with a Tree-Germander Leaf.

14. *Galeopsis orientalis*, *Betonice luteæ folio, floris labio superiori laciniato*. *Oriental Sinking Dead-Nettle*, with a yellowish Betony Leaf, and the upper Lip of the Flower jagged.

15. *Galeopsis orientalis, foetidissima, palustris, folio oblongo*. *The most Sinking marsh Dead-Nettle*, with an oblong Leaf.

16. *Galeopsis orientalis, Lavandulae folio, calyce villosissimo*. *Oriental Sinking Dead-Nettle*,

Pettle, with a very hairy Flower-cup.

17. *Galeopsis orientalis*, flore minimo, albo. Oriental stinking Dead-Pettle, with a very small white Flower.

It is called *Galeopsis* from the Greek Word, γαλή, which signifies a Car, as if its Flower did represent a Car's Face. Others would have it γαλεός δάκτυλος, which signifies *Mustela fetida*, which seems to be the true Derivation of it according to *Pliny*, à *florum figura*, *Mustele faciem* & *ricum quadantenus exprimente*.

All the Species of *Dead-Nettles*, boiled in Wine and drunk, do wonderfully cure all inward Wounds, Hurts and Bruises, and Falls, or the like; and are of singular Efficacy for the Spleen, and the Diseases incident to it: But above all, the Virtues of this Plant, are celebrated for the *Hemorrhoids* or *Piles*, when they are full of Pain, swollen, and fallen down: The Juice applied warm with *Vinegar*, both eases the Pain and draweth forth the Blood; and used in the same manner, cures *Warts*, and other such like *Grumes*, or hard Knots that grow in, or about the Fundament; as also all Manner of hard Swellings, as *Wens*, *Warts*, and *Kernels*, that grow in the Neck or Throat, or any other Part of the Body. It is singularly commended for all Manner of filthy *Ulcers*, *Gangrenes* or *Cancers*, be they never so fistulous.

The *Galeopsis procerior*, *foetida spicata*, which is the first Species here described, smells of *Bitumen* or *foetid Oil*: It has an herby Taste, somewhat salish, astringent, and does not redden blue Paper, which makes us suppose that its *Salt* very much partakes of the acrimonious *Salt*, which is naturally in the Earth, which in this Plant, is wrapped up in Abundance of Sulphur and earthy Parts. It is vulnerary and very lenitive. There is an Oil made of it by Infusion, which is excellent for Burnings, and for Wounds in the tendinous Parts. In the Country they make use of the Infusion of its Leaves and Flowers for the *Nephritick Cholick* with Success, for scrofulous *Tumours*, and for a *Pleuresie*. You may prepare an Extract of it to make use of in the Winter.

The 9th Species, which *Casalpinus* calls *Tertiola*, the same Author says, cures a *Tertian Ague*. This Plant contains a *Sal Armoniac*, joined with Abundance of *foetid Oil*. Its Leaves are bitter, stinking, and do not red-

den blue Paper; The whole Plant is vulnerary and lenitive.

TABLE LXXXVII. Fig. 2.

GENUS V.

Stachys, Bafe Hore-hound.

STACHYS, or **Bafe Hore-hound**, is a Plant with a labiated Flower of one single Leaf, whose upper Lip AB, is somewhat arched and erect, but the under Lip CD, is cut into three Segments, the middle being larger than the rest. Out of the Flower-cup F, rises the Pointal G, fixed into the hinder Part of the Flower E, like a Nail, and attended by four Embryo's, which afterwards turn to so many Seeds I, which are roundish K, shut up in the Husk H, which before was the Flower-cup. To this we may add the downy and hoary Leaves, such as *Dioscorides* attributes to the *Stachys*.

The Species of this Plant are,

1. *Stachys major*, Germanica. C. B. Pin. 236. The greater German Bafe Hore-hound. *Stachys Fuchsi*. J. B. 3. 319. *Stachys Dioscoridis*. Lob. Icon. 530.

The lively Root of this Plant, is abundantly furnished in all Parts of it with Fibres. It sends up several Stalks (oftentimes but one) a Cubit high, or somewhat taller, square, hairy with a hoary Down, and full of fungous Pitch, out of whose Joints come forth Leaves placed opposite to one another, longer than the Leaves of *Hore-hound*, downy, soft, snipped, or notched round the Edges, of a drying Taste, without any Manner of Acrimony. The Flowers from the Wings of the Leaves, surround the Tops of the Stalks in Whorles, as it were from a long Spike, being rough without, smooth within, purplish, very much resembling the Flowers of *Arch-angel*, with a Lip cut into three Segments, somewhat spotted, and a Hood variegated with a deep and faint Purple, standing in oblong hairy Flower-Cups. The Seed is round and blackish. The Smell of the whole Plant is dull and unpleasing.

It grows in rugged Places, upon Hills and Mountains. It is likewise to be met with in England

England, about *Whitney*, a Village in *Oxfordshire*. It flowers in the Months of *June* and *July*, and later in mountainous Places.

2. *Stachys major*, Germanica, flore dilutior. The greater German *Wase Horehound*, with a more faint-colour'd Flower.

3. *Stachys Cretica*, latifolia. Broad-leav'd *Wase Horehound* of Candy.

4. *Stachys Cretica*. C. B. Pin. 236. *Pseudo-stachys Cretica*. Ejuld. Prodr. 113. *Wase Horehound*.

Wase Horehound of Candy, has several very hoary square Stalks rising from a small woody Root, on which are set two small, long, narrow Leaves, at the Joints, encompassing the Stalks, without any Foot-stalks, of a hoary Ash-colour, somewhat hairy and rough to the Touch; but those that grow at the Bottom of the Stalk are much longer, standing upon long Foot-stalks, which together with the Leaf is a Palm in Length, tho' hardly an Inch in Breadth, generally of little or no Smell at all; yet some have been observed sweeter than other of this Kind. The Flowers are small and purple, standing in prickly Husks, round the Stalks at several Distances: After which comes the Seed, which is small, blackish and round.

5. *Stachys minor*, Italica. C. B. Pin. 236. *Stachys*. Dod. Pembr. 9. The smaller Italian *Wase Horehound*.

From a ligneous, perennial Root, rise sundry green, downy Leaves, lying along upon the Ground, about three Inches long, two Inches broad, either not at all, or only gently notched round the Edges, retaining their Greenness during the Winter; out of the Middle of which, rise several Stalks (sometimes but one) clothed with like Leaves, only somewhat smaller. The Flowers surround the Stalks at the Joints, from the Middle up in Wherles, being of a purplish Colour, and standing in Flower-cups, softer than those of *Horehound*; to which succeed black Seeds. The Stalks grow narrower at Top by degrees, and turn into a Spike by the Wherles approaching nearer.

They say it grows naturally in *Italy* in great Abundance: However when I travelled in *Italy*, and searched for Plants very carefully, I could never meet with it. Ray.

It has scarce any Smell, and is full of a watery Juice.

6. *Stachys Canariensis*, frutescens, *Verbasci* foli. Canary frutescent *Wase Horehound*, with a *Bullein* Leaf. *Stachys amplifolius* *Verbasci* foliis, floribus albis, parvis, non galeatis, spica *Betonice* ex *Insula Canarina*. Pluk. Almag. Bot. *Salvia sylvestris*, amplifolius *Verbasci* foliis, graveolens, flore albo, parvo, *Canariensis*. Ejuld. Almag. Bot. & Phytog. Tab. 322. Fig. 4.

7. *Stachys spinosa* *Cretica*. C. B. Pin. 236. Prickly *Wase Horehound* of Candy. *Gaidarothymum*. Prosp. Alpin. Exor. 86.

This Plant is a Foot high, spread over the Ground in a Circle, abounding with numerous Thorns or Prickles. The Leaves are long, about the Bigness of one's Finger, somewhat narrow and without Prickles, encompassing the Stalks every where without Order. The Stalks are square, hoary like the Leaves, so that the whole Plant looks of an Ash-colour, producing Branches on both Sides in the Form of a Cross, which end in Prickles, and are all divided again into other Branches, the Prickle which is in the Middle being always larger than the rest. It produces Flowers like those of *Sage* in Colour, Shape and Size, standing in certain hairy Flower-cups, being joined together in Threes and Fours, to which succeed uneven black Seeds. It is always green, flowers in *July*, and the whole Plant is without Smell. It has a ligneous Root, and great in Proportion to the Plant.

It grows in the Western Part of the Island in dry Places, betwixt *Thyme* and *Thymbra*. *Clusius* makes the Flowers to be like those of the *Teucrium Bæticum*.

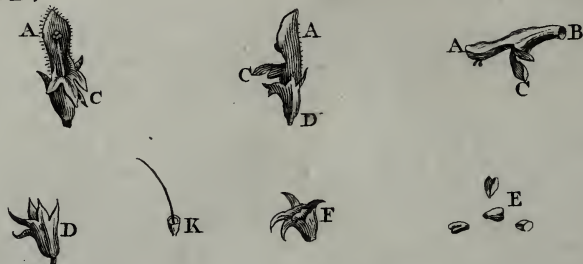
8. *Stachys spinosa* *Cretica*, flore albo. Prickly *Wase Horehound* of Candy, with a white Flower.

9. *Stachys orientalis* altissima & foetidissima. The tallest and most stinking oriental *Wase Horehound*.

This Plant seems to be called *Σταχύς* by the Greeks, as if it bore Flowers ranged into Spikes; which yet does not agree to the Plant called by that Name.

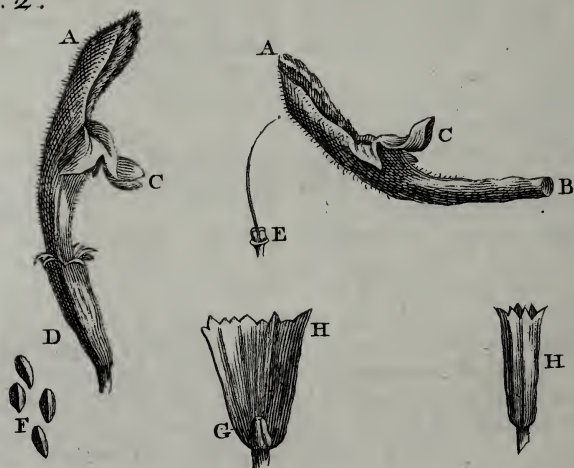
It differs from *Horehound*, with which it agrees in its Wherles and Hoariness, in its Bigness and Structure; for it is taller and more upright, and has longer and sharper Flowers; but

Fig. 1.



Leonurus. Lion's tail.

Fig. 2.



but you must understand the first Species especially, for the rest are referr'd hither upon the Account of their Analogy and Likeness.

We rank this Plant amongst the wherled Plants not spiked, notwithstanding the Signification of its Name, because its Wherles are not close together, nor are the Leaves under them of a Shape different from the rest.

Both *Dioscorides* and *Galen* speaking of this kind of *Hore-bound*, called *Stachys*, say that it is of a hot and sharp Quality, a little bitter, and in the third Degree of Heat, as they call it: And therefore the Decoction of it is useful to bring down Womens Courses, and to bring away the After-birth, and that it causes Abortion in Women; It likewise provokes Urine, if the Parts be fomented with the Decoction of it, or the Party sit over the warm Fumes.

TABLE LXXXVIII. Fig. 1.

GENUS VI.

Cardiaca, Motherwort.

Motherwort is a Plant with a labiated Flower of one single Leaf, whose upper Lip A is imbricated (with Pieces laid one upon another, as it were Tiles) and much longer than the under Lip C, which is cut into three Parts. Out of the Flower-cup D, rises the Pointal K, fixed into the hinder Part of the Flower B, like a Nail, attended as it were with four Embryos, which afterwards turn to so many angular Seeds E, filling up the whole Husk F, which before was the Flower-cup.

The Species of this Plant are,

1. *Cardiaca*, *J. B.* 3. 320. Motherwort. *Dod. Pempt.* 94. *Lob. Icon.* 516. *Marrubium Cardiaca dictum, forte 1. Theophrasti.* *C. B. Pin.* 230.

It has a hard, square, brownish, rough, strong Stalk, rising to be three or four Foot high at the least, spreading into many Branches, whereon grow Leaves on each Side with long Foot-stalks, two at every Joint, which are somewhat broad and long, as it were rough or crumpled, with many great and manifest Veins, of a dark green Colour,

deeply dented round the Edges, and almost torn or divided. From the Middle of the Branches up to the Tops, which are very long and small, grow the Flowers round them at Distances, in sharp-pointed, rough, hard Husks, which are more purple or red, than in any of the *Baulms*, or in any of the *Hore-bounds*, but in the same Manner and Form, and Roughness, as in the *Hore-bounds*: After which come small, round, blackish Seeds in great Plenty. The Root sends forth a number of long Fibres or Strings accompanied with small ones, taking strong hold of the Earth, of a dark, yellowish, or brownish Colour, and does not perish, but endures as the *Hore-bound*, nor is the Smell much different from it.

The Leaves, as well those that come from the Root, as those that grow upon the Stalks, stand upon long Foot-stalks, which is worth taking notice of.

It grows in uncultivated, ruinous, and rough Places.

2. *Cardiaca flore albo.* White-flower'd Motherwort.

3. *Cardiaca Crispa Raii. Hist.* 572. Curled Motherwort. *Cardiaca foliis eleganter crispis.* *Car. Hort. Oxon.* 38.

4. *Cardiaca orientalis, canescens, folio Ranunculi pratensis, flore purpureo, calyce molli.* Oriental hoary Motherwort, with a Meadow Crowfoot Leaf, a purple Flower, and a soft Flower-cup.

5. *Cardiaca orientalis, canescens, foliis Ranunculi pratensis, flore albo, calyce molli.* Oriental hoary Motherwort, with Meadow Crowfoot-leaves, a white Flower, and a soft Flower-cup.

I had a beautiful Species of Motherwort brought up from a Seed I received from London, with Leaves turned, winded, waved or curled round the Edges a thousand Ways.

It is commended by some in the Ailments of the Heart, and is thought to be of so much Efficacy, that it is reckoned to have received its Name from thence.

It warms, dries, attenuates, and discusses; and in a peculiar manner it cures the Distension of the *Hypochondres*, and the Heart-ake in Children (which they call *affectum cardiacum seu Cardialgiam.*)

The Powder of this Plant to the Quantity of a Spoonful drunk in Wine, is a wonderful
S I Help

Help to Women in hard Labour; as also for the Suffocations of the Womb, or Risings of the Mother; and from these Effects it is likely it took the Name of *Motherwort* with us. It likewise provokes Urine, and brings down Women's Courfes, cleanses the Chest from cold Flegm oppressing it, and kills the Worms in the Belly. It is of good Use to warm and dry up cold Humours, to digest and disperse such as are settled in the Vessels, Joints, and Sinews of the Body, and to cure Cramps and Convulsions, &c.

The Decoction of *Motherwort*, or the Powder of the dried Plant mixed with Sugar, and given for the Palpitation of the Heart, the Diseases of the Spleen, and the Fits of the Mother, is a Medicine of admirable Virtue and Efficacy. D. Bowle.

It is used by Ferriers and Horse-Doctors with Success, in Diseases of Cows and Horses.

TABLE LXXXVIII. Fig. 2.

GENUS VII.

Leonurus, Lion's-tail.

Lion's-tail is a Plant with a labiated Flower of one single Leaf, whose upper Lip A is imbricated, and much longer than the under Lip, which is divided into three Segments. Out of the Flower-cup D, rises the Pointal E, fixed like a Nail into the hinder Part of the Flower B, and attended as it were by four Embryo's, which afterwards turn to so many Seeds G, which are oblong F, shut up in a long and fistulous Husk H, which before was the Flower-cup.

The Species of this Plant are,

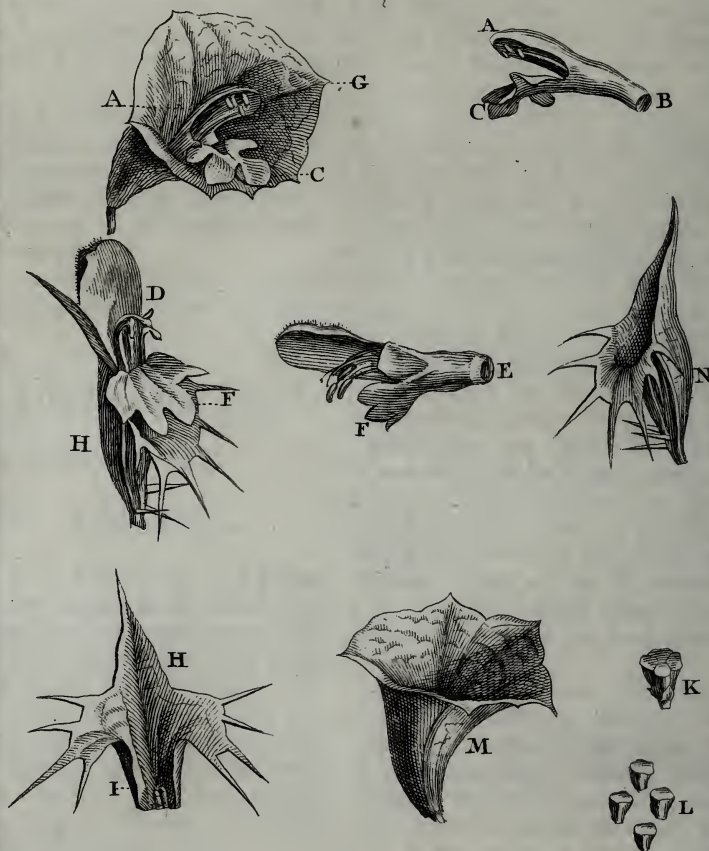
1. *Leonurus perennis*, Africanus, *Sideritis* folio, flore Phœniceo, majore Breyn. Prodr. 9. Perennial, African Lion's-tail, with an Ironwort-leaf, and a large Purple-coloured Flower. *Leonurus Capitū Bonæ spei*. Breyn. Cent. 1. *Cardiaca Africana perennis*, foliis *Sideritis*, floribus longissimis, phœnicis, villosis. H. L. Bar.

This most beautiful Species of *Lamium*, says Breynius, hath a Stalk half a Yard high, square, but with blunt Angles, covered with short and hoary Down; with Couples of

narrow and hoary Leaves notched round the Edges, and adhering to the Stalk at long Distances alternately, as in the common *Ironwort*, but longer: Out of whose Bosoms come forth little Branches likewise square, cloathed with smaller Leaves, and that from the Bottom of the Stalk, to almost the topmost Joints, which innumerable tender, striped little Bottles ending in some Prickles, rest upon in wherles, with little Foot-stalks having little Appendages after the manner of *Horeboud* towards the Bottom; out of which appear crested, fistulous Flowers, not unlike the Flowers of *Lamium* in Shape, but much longer, and of an incomparable Beauty, betwixt a golden and a most shining or flaming Purple-colour, and rough with a soft Down, with a small Lip hanging down, and cut into three Segments, a very long Hood fringed with Hairs of a shining crimson Velvet-colour, which, before it breaks forth out of the Flower-cup, bends back like *Lamium*, and presently rises up like a *Lion's-tail*; under which are hid some very long *Stamina* or Threads that are tipp'd with small Chives. When the Flowers decay, they are succeeded according to Custom, by four Seeds in each Bottle. The Taste of this Plant is bitter, the Smell aromack, tho' dull, especially in the lower Part of the Flower-cups, which give the same Smell almost as the *Marum Matthioli*, after having been gathered twelve Years.

2. *Leonurus annuus Americanus*, *Nepetæ* folio, flore phœniceo, minore. Breyn. Prodr. Annual American Lion's-tail, with a Peppor Catmint-leaf, and a small purple flower. *Cardiaca Americana*, annua *Nepthæ* folio, floribus brevibus, phœnicis, villosis. H. L. Bar. It rises with an herby, whitish, square, channelled, solid Stalk, above a Yard and an half high, and full of white Pith; which is surrounded in the manner of Wherles, at long Distances, by little Bottles leaning upon one another in a numerous and close Series, being fistulous, quinquangular, striped, longer on the upper Side, bowing downwards from little short Foot-stalks, and somewhat hooked, with a pretty large Opening armed with seven soft Prickles, six of them shorter, and one at Top longer and stronger. Out of these come forth crested Flowers, scarce labiated, thrice as short and slender, as the

Molucca. *Molucca Baulm.*



preceeding *African* one, hairy, of a purple Colour, being succeeded by four oblong, corner'd, light, brown Seeds, that are likewise shorter and narrower on the upper Part. At each Joint, from the Bottom of the Stalk to the Top, grow Leaves in Couples alternately, opposite to one another, not much unlike the Leaves of *Nep* or *Catmint*, but larger, somewhat hoary, soft, and more dented round the Edges. The Root is ligneous, whitish, fibrous, and pretty small, with respect to the Size of the Plant. It grew up from a Seed brought from *Surinam*.

3. *Leonurus Canadensis*, *Origani folio*. Canada *Lion's-tail*, with a *Barjozam*-leaf. *Origanum fistulosum*, *Canadense*. *Cornar*. 14.

It grows up with square, roughish and branchy Stalks, about half a Yard high; with long Leaves resembling the Leaves of the *Lyfimachia siliquosa*, and of a high green Colour, which come forth from the very Bottom of the Stalk, all along to the Top, where ten or twelve of these lesser Ones being gathered in a Circle, surround the Ball of the Flower, which resembles the Head of the *Scabious* (tho' it be broader and much flatter) and is made up of a thousand little Flower-cups, which send forth many small Pipes ranged in Order, about half an Inch long, of a bright purple Colour, split into two on that Part where they gape, from whence stand forth two or three Threads with their Chives. It is prolifick, for the Stalk often mounts above the Flower, and being raised three Inches above the uppermost Flower, it flourishes with a new Globe of Flowers, with three small Leaves growing under it. The whole Plant, both Stalk and Leaves, is covered over with a hoary Down. It breathes a Smell, even when it is not rubb'd, like the *Satureia Hortensis*. The Taste is very biting, and burns the Mouth like *Lakeweed* or *Arsmart*, excepting the Root, which is made up only of Fibres; for it is, I don't know by what Disport of Nature, altogether insipid and without Taste.

It flowers in *July* and *August*. It is a Plant that lives many Years. *Cornutus* called it *Origanum Fistulosum*, because the little Pipes of the Flowers are ranged together and formed, that they represent as it were a certain compact Pipe like *Hemlock*.

Breynius called it *Leonurus* from two Greek Word, *λέων* a Lion, and *οὐρα* a Tail, as if he had said a *Lion's-tail*.

TABLE LXXXIX.

GENUS VIII.

Molucca, Molucca Baulm.

Molucca Baulm is a Plant with a labiated Flower of one single Leaf, whose upper Lip *AD*, is hollow like a Spoon, but the under Lip is cut into three Segments *CE*. Out of the Flower-cup *GH*, rises the Pointal *I* fixed like a Nail into the hinder Part of the Flower *B*, and attended as it were by four Embryo's, which afterwards turn to so many Seeds *K*, which are angular *L*, and shut up in a Bell-shap'd Husk *MN*, which before was the Flower-cup.

The Species of this Plant are,

1. *Molucca laevis* *Dod. Pempt. 92. Smooth Molucca Baulm. Melissa Moluccana, odorata. C. B. Pin. 229. Molucca J.B. 3. Part. 2. 234.*

It has an upright Stalk, a Cubit and a half high and better; smooth, reddish, almost square, pretty strong, containing but little Pith, spread out into many Branches, and those by Pairs opposite to one another. The Leaves are roundish, very deeply notched round the Edges, hanging by long Foot-stalks, like the Leaves of black *Horehound*, but not quite so black, very smooth and nervous. On the Stalk and Branches, from the Middle up to the Top, grow at Distances large open Flower-cups, in the shape of Baskets, cutaneous, nervous, ranged by sixes in Wherles, which contain little Flowers of stinking Dead-nettle, of a whitish Purple, with a hairy Hood, and Chives in the Middle, and are at last succeeded by triangular Seeds. But to each Wherle adhere two Leaves in Pairs, with a long Foot-stalk intervening, and like those that grow lower. At the Place where the Foot-stalks rise, start up sundry longish Prickles. The Root is woody and fibrous. It is an annual Plant, whose Leaves are bitter, and Flower insipid.

The Smell of this Plant is agreeable to me, *Ray*.

2. *Molucca spinosa*. Dod. Pempt. 92. *Prickly Molucca Baulm*. *Melissa Moluccana, fatida*. C. B. Pin. 229. *Molucca asperior fatida*. J. B. 3. Part. 2. 235.

The Leaves stand upon long Foot-stalks, being almost perfectly round, jagged, nervous and stinking. The Flowers break forth from Flower-cups, encompassing the Stalk like Whorles at certain Distances: But these Flower-cups are not so open as in the former Species, but are nervous, jagged, and their Jaws end in long, stiff, and sharp Prickles.

It is more tender than the former, nor does it so easily bring its Seed to Maturity.

3. *Molucca fruticosa*, Sicula. Sicilian Shrub, *Molucco Baulm*. *Melissa fruticosa*, Sicula, calyce amplo patulo, Raii Hist. 568.

It rises to a very great Height, with feeble, square and very branchy Stalks. The Bark of the old Branches is ashy, and of the younger ones reddish. The Leaves are in Shape like the Leaves of the *Melissa vulgaris*, or common Baulm, but much smaller, dented round the Edges in the same manner, and resting upon pretty long Foot-stalks. The Flowers are cowl'd, white, with a gentle Tincture of Red, and spotted Lips. The Flower-cups, which are likewise the Seed-vessels, are like those of the preceeding Species, large, open, shaped like a Basket, but lesser, and cut round the Edges into five Jaggs, two of them below, and three above. The Seeds are like those of the former Species. The Smell of the Plant is ungrateful.

I found this Plant in Sicily, about Messina, and in an Isle near the Promontorio Longobardo, and its Stalks appear'd as if they continued a whole Year. Hitherto we have lookt upon it as a Plant not described. It agrees with the *Molucca* in large open Flower-cups, almost in the Shape of a Funnel. Ray.

To this Plant may be reduc'd the *Lamium fruticosum non maculatum Creticum* of Zannoni.

The Vertues of this Plant, are not yet described, because they have not been experienc'd by any Physician or Herbalist.

TABLE XC. Fig. 1.

GENUS IX.

Pseudodictamnus, Bastard-dittany.

Bastard-dittany is a Plant with a labiated Flower of one single Leaf, whose upper Lip A is arch'd, and generally cut into two Segments, but the under Lip is cut into three Segments. Out of the Funnel-shap'd Flower-cup DE, rises the Pointal F, fixed like a Nail into the hinder Part of the Flower B, and attended as it were by four Embryo's, which afterwards turn to so many Seeds G, which are oblong H, shut up in a Husk DE, shaped like a Funnel, which before was the Flower-cup.

The Species of this Plant are,

1. *Pseudodictamnus acetabulis* *Moluccæ*. C. B. Pin. 222. Bastard-dittany with the Pan or Hollow of *Molucca Baulm*. *Dittanno falso di Cerigo, overo dittanno 2 di Teofrasto*. Pon. Bald. Ital. 25. It rises with many hoary, square Stalks, to the Height of a Foot or better, with Leaves larger and longer than the Leaves of the *Pseudodictamnus verticillatus*, from whose Wings, towards the Tops of the Stalks, come forth hoary Flower-cups, like those of *Molucca Baulm*, but smaller and shorter, out of which peep Flowers of a Colour mixed of White and Red. The Root spreads many Fibres. The Smell of this Plant is not unpleasant; it bears the Winter Colds.

I cultivated this very Plant, or certainly one very like it, in my little Garden at Cambridge, with Leaves very much like the Leaves of the *Pseudodictamnus* in Shape, but larger, softer, more hairy, but less hoary. The Flower-cups were large and open; but much smaller than the *Acetabula* of the *Molucco*, hairy likewise and channelled. Ray.

Sir George Wheeler also found it in the Island *Cithrae*, now called *Cerigo*, and describes it pretty exactly. *Voyag. B. 1. pag. 49.*

2. *Pseudodictamnus Hispanicus, foliis crispis & rugosis*. Spanish Bastard-dittany, with curled and wrinkled Leaves. *Marrubium Dictamni Spuriis foliis & facie*, Par. Bat. *Pseudodictamnus*

Pseudodictamnus. Bastard-Dittany.

Fig. 1.

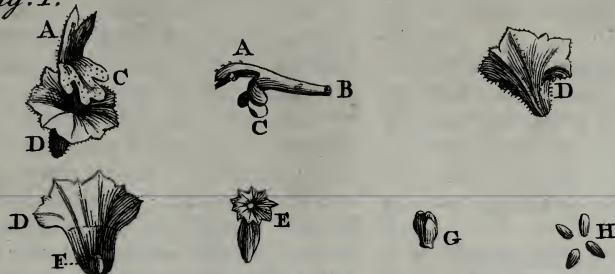


Fig. 2.

Mentha. Mint.



Fig. 3.

Marrubiastrum. Bastard-horehound.

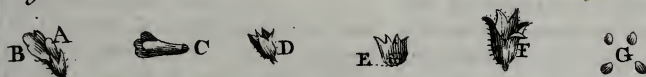


Fig. 4.

Lycopus. Wolf's foot.





dodictamnus nigro, rotundo, crispo folio. Bocc. Mus. part 2. 152. Tab. 129.

From a single Root sending forth sundry Fibres rise many Stalks a Foot high, branched, square, and downy, on which are set, at each Joint, Leaves in bigness like the *Pseudodictamnus acetabulis* Molucca. C. B. but in their Appearance and Structure, like the *Marrubium Album*, but smaller, more notched and rounder. The Joints of the Stalks are begirt in a manifold Series in the manner of Wherles, by *acetabula* joined close together, supported by short, or no Foot-stalks, lesser than the *Pseudodictamnus*, expanded, wrinkled, and notched round the Edges. Out of each of these rises a fistulous Flower, crested and labiated, with most beautiful purple Lines drawn in the inside, without of a palish red, consisting of a Hood parted in two, erect, with a downy Chive, and a Lip cut into three Lobes. It bears angular, brownish Seeds, by fours in each Flower-cup.

3. *Pseudodictamnus Hispanicus*, amplissimo folio candicante & villosa. Spanish Bastard-dittany, with a very large hoary and hairy Leaf. *Marrubium album*, rotundifolium, *Hispanicum*: Par. Bat. *Marrubium subrotundo folio*. Bocc. Mus. Part. 2. 167. *Marrubium Hispanicum rotundifolium, album, majus, seu latifolium* Ejusd. Tab. 122.

It looks so like the *Ocimastrum valentinum Clusii*, that many have taken it for the same; but it rises higher with square Stalks, of a whitish green Colour, the uppermost Leaves are of a deeper Green, and hang by long Foot-stalks, not quite so round, and ending in a moderate blunt Point. The Flower-cups, out of which come the Flowers, are expanded into ten Creasses, and as many Chives in the Form of Stars. There are many Flowers ranged in Wherles from the Bottom to the Top at Distances, whose upper Part or Hood is divided into three Parts, and turns backwards, being somewhat downy towards the outmost Borders, white all over, with two bloody Lines drawn lengthwise on the Inside. The Lip is split in two; auriculated, whitish, and beautifully mark'd with Spots, variegated with white and red Lines. The Hood in its rising is accompanied by several thick, stiff, pale-red *Stamina* without Chives. Next succeed angular, brown Seeds, by two's, three's, but rarely by four's in the

same Seed-vessel. [Without all doubt four Seeds naturally succeed to one Flower.] The Smell and Taste are as in the other *Horebonds*.

As to the Disposition of the Wherles, and the little Bottles, ending in ten sharp Points, it agrees with the *Marrubium vulgare album*, C. B.

4. *Pseudodictamnus Hispanicus*, amplissimo folio nigricante, & villosa. Spanish Bastard-dittany, with a very large blackish and hairy Leaf. *Pseudodictamnus seu Marrubium nigrum, Siculum, Galeopsidi Anguillare respondens*. Bocc. Mus. Part. 2. Tab. 114.

5. *Pseudodictamnus Hispanicus*, Scrophulariæ folio. Spanish Bastard-dittany, with a Figwort-leaf. *Galeopsis* Ang. 278. *Galeopsis Anguillare, sive Pseudodictamnus nigrum, Siculum*. Bocc. Mus. Part. 2. 151.

6. *Pseudodictamnus verticillatus, inodorus*. C. B. Pin. 222. Wherled Bastard-dittany without Smell. *Dictamnus adulterinum quibusdam verticillatum, vel potius Gnaphalium veterum*. J. B. 3. Part. 2. 255. *Pseudodictamnus*. Dod. Pemp. 281. This is the *Pseudodictamnus* of Gerarde and Parkinson.

This Bastard-dittany, says, Parkinson, is much higher than the *Dictamnus Creticus*; the Branches are a Foot and a half long many times, continues he, as I have observed in my own Garden, whereon are set such like hoary and green Leaves, as the true has, but neither so thick to the Touch, nor so thick-set on the Branches, but more scattered, yet two always grow together, one against another: From the Middle of these Branches to the Tops, come forth the Flowers encompassing the Stalks at the Joints, with Leaves which are gaping like the former, as in *Penny-royal*, *Mint*, *Calamint*, and several other such like Herbs, of a faint purplish Colour, standing in hoary Husks, after which come the Seeds, which are larger and blacker than the former; the Root is not so black, but harder and more woody, shooting down deep into the Ground, with several Sprays spreading from it. This Herb is somewhat hot and sharp, but not by half so much as the former, viz. the *Dictamnus Creticus*. It endures with us in our Gardens, if the Winter be not too violent cold and long, or if some Care be taken of it: It grows very well

well also from Slips thrust into the Ground about the Middle of April, and a little defended from the Heat of the Sun, for some time after it is planted, and now and then watered in the mean while.

7. *Pseudodictamnus Alpinus*, verticillatus, minor. *H. R. Per.* Wherled smaller Bastard-dittany of the Alps.

8. *Pseudodictamnus Africanus*, *Hederæ terrestris folio.* *Olden.* African Bastard-dittany, with a Ground-hy Leaf.

9. *Pseudodictamnus orientalis*, foliis circinatis. Oriental Bastard-dittany, with Leaves exactly round.

It is called *Pseudodictamnus*, which is as much as to say, false Dittany, because it resembles the *Dictamnus Creticus* in its whitish and roundish Leaves.

As it agrees with *Hore-bound* in Appearance and Structure, so likewise in Virtues; which shall be explained afterwards when we come to treat of that Plant.

But I must not pass over in Silence, what *Pliny* says of the sixth Species here described; which is, that it brings down Women's Courtes, and is so effectual to expel the dead Fœtus, that it is dangerous to bring it into a Room where there is a Woman with Child.

TABLE XC. Fig. 2.

GENUS X.

Mentha, Mint.

Mint is a Plant with a labiated Flower of one single Leaf, whose upper Lip A is arched; but the under Lip B is divided into three Parts; but both of them are so cut, that at first Sight the Flower seems to be cut into four Segments, according to the Observation of the celebrated Mr. Ray. Out of the Flower-cup D, rises the Pointal E, fixed like a Nail into the hinder Part of the Flower C, and attended as it were by four Embryo's, which afterwards turn to so many Seeds F, shut up in a Husk that was before the Flower-cup.

The Species of *Mint* are,

1. *Mentha Sylvestris*, rotundiore folio. *C. B. Pin.* 227. Wild-mint, with a round Leaf. *Menthastrum folio rugoso, rotundiore, sponta-*

neum, flore spicato, odore gravi. *J. B.* 3. Part. 2. 219. Hoyle-mint, or round-leaved Wild-mint.

It tends up quadrangular and hairy Stalks; half a Yard high; the Leaves growing at Distances are eight Inches long [they are not so long] above a third or fourth Part broader than an Inch, wrinkled, and covered over with Down. It produces little Branches above the Middle, out of the Bosoms of the Leaves, with a vast Number of Flowers both in the Spring, and in the Summer, being of a whitish Red and gaping, resting upon dented Flower-cups, and by their Position resembling a certain Spike; to which succeeds a small black Seed. It stands upon a fibrous Root with many Sprays spreading from it, perennial, and spreading lateral Tendrels upon the Ground in order to propagate. It is bitter, biting, and astringent to the Taste; and it has a heavy and biting Smell, much more disagreeable than that of the Garden Mint.

I have observed it growing wild in great plenty in a Meadow, in a watery Place, near *Faulkbourne-Hall* in *Essex*; by a River-side near *Lydbrook Village*, not far from the Town of *Rosse* in *Hereford-shire*, and elsewhere. It grows wild likewise in many Parts of *France* and *Germany*, and generally loves Water.

2. *Mentha Sylvestris*, rotundiore folio, purpureo flore. *Bot. Monsp.* Wild-mint, with a round Leaf, and a purple Flower.

3. *Mentha hortensis*, verticillata, Ocimi odore. *C. B. Pin.* 227. Garden-wherled-mint, smelling like sweet Basil. *Mentha verticillata, minor, acuta, non crispa, odore Ocimi.* *J. B.* 3. Part. 2. 216. *Mentha quarta.* *Dod. Pempt.* 95.

It is not so hairy as the *Mentha arvensis verticillata*; nay, it is covered with so short a Down, that to one who does not look at it carefully, it may appear perfectly smooth. Its very creeping Root is common to it with the other Species. The Stalks which are square, stiff and reddish, rise half a Yard high. The Leaves are at first like the *Ocimum medium*; such as are uppermost upon the Stalk are longer, sharper, and of a deeper Green than the Leaves of the *Calamintha aquatica*, cut into longer and sharper Teeth, so that they nearly resemble the Leaves of the *Mentha Romana*. The Wherles of the Flowers consist

sist of Bunches of Flowers resting upon one common oblong Foot-stalk springing out of the Wings of the Leaves, by which it differs from the said *Calamintha*, whose Flowers sit in the very Wings of the Leaves. The Colour of the Flowers in this, is paler than in that, the Tubes or Pipes are longer, and the Size, when the Flowers are open'd, keeps a Middle betwixt the smaller and greater of that. There are four *Staminula* or small Threads in each Flower, and a Pointal longer than in the other.

The manifest Difference in the very delicious Smell of sweet *Basil*, and in the Taste of *Baulm*, do easily distinguish this from the other Species of *Mint*.

I have often seen it without Gardens, but cannot say whether it grew there wild, or from the Rubbish of the Gardens. *Ray*.

4. *Mentha crispa, verticillata*, C. B. Pin. 227. *Mentha crispa, verticillata rotundiore folio*. J. B. 3. Part. 2. 215. *Mentha prima*. Dod. Pempt. 95.

The creeping Root of this is common to the rest; as also the square Stalks, which in this are above a Yard high, stiff, upright, purplish near the Root, rough, and hollow with many Wings. From the Joints of the Stalks and Branches spring forth sweet-smelling, deep-green, roundish, rugged, curled Leaves, jagged round the Edges, smooth, or very little rough: The Flowers come out of the Wings of the Leaves, like those of *Penny-royal*, of a faint blue Colour.

5. *Mentha rotundifolia crispa, spicata*. C. B. Pin. 227. Round-leav'd, curled, spiked *Mint*. *Mentha spicata, rotundifolia, crispa*. J. B. 3. Part. 2. 218. *Mentha alter*. Dod. Pempt. 95.

The Make or Appearance of this round-leav'd, curled and spiked Species, is like the wherled One: It has creeping Roots propagating themselves; the Stalks are square, rough, and reddish towards the Bottom. The Leaves grow in Pairs, over against one another, being curled, rugged, hardly rough, notched round the Edges, smooth, or at least but very little rough, and very like the wherled Species both in Smell and Taste. But the Position of the Flowers is widely different, tho' the single Flowers have the same Colour and Appearance; for they are ranged into Spikes an Inch, or two Inches long.

Both this and the former are unknown to us.

Ray. The Description is owing to *J. Baubinus*.

6. *Mentha crispa, Danica aut Germanica, speciosa*. Park. Theat. 32. The handsome, curled, Danish or German *Mint*.

This gay *Mint* creeps with its Roots as the others do, having several high Stalks rising from them, which quickly divide themselves into Branches with two Leaves at every Joint, somewhat broad and large, but more deeply cut in at the Edges, and as it were curled or crumpled together, especially the lower Leaves; for those that rise up with the Stalk, are not so much torn or cut in on the Edges, but are a little deeper dented than the former. The Flowers stand in somewhat larger and rounder spikey Heads than the other, of a pale purplish Colour: The Smell of them is pleasant, but not so quick or hot as some of the former.

7. *Mentha rotundifolia, spicata, altera*. C. B. Pin. 227. Another round-leav'd, spiked *Mint*. *Menthastrum spicatum, cultum, folio rotundiore, rugoso*. J. B. 3. Part. 2. 218. *Sisymbria, Mentha agrestis*. Lob. Icon. 508. This is the *Menthastrum hortense sive Mentha Sylvestris* of *Parkinson*. Mannered Horse-mint.

The wild *Mint*, which is cultivated in Gardens, has creeping Roots as the other *Mints* have, and square Stalks, which are hoary, and somewhat hairy, whereon are set larger and rounder Leaves than in the former, of an hoary white Colour, covered as it were with Down. The Flowers stand at the Tops of the Branches, in longer and more slender spikey Heads than any of the former, and are of a pale purplish Colour; the Smell is more strong, full and heady, but nothing so pleasant as the others.

Of this Kind are the parti-coloured *Mints* which are kept in Gardens, having sundry Leaves parted; White and Green, some more, and some less than others.

8. *Mentha rotundifolia, palustris seu aquatica, major*. C. B. Pin. 227. *Mentha aquatica sive Sisymbrium*. J. B. 3. Part. 223. *Sisymbrium*. Dod. Pempt. 97. Water-mint.

It loves a moist Soil, and has a creeping Root with many Fibres at it, from whence it sends up several square, rough, slender Stalks, either hollow within, or full of fungous Pith. The Leaves grow in Pairs at the Joints, (which are not many) like the Leaves of the *Mentha crispa verticillata*, but not at

all curled, although like them, they are notched, round the Edges, sticking to short Foot-stalks, with a strong Smell of *Penny-royal*, of a blackish red Colour, and very often green. The Flowers are ranged on the Tops of the Stalks, into pretty thick and roundish Heads, below which there is generally one Wherle of Flowers, composed of two little Balls of Flowers, each of which comes out of the Wings of the Leaves upon one common Foot-stalk. These same Flowers are of a light purple Colour, being cut into four Lappets, the uppermost of which, that takes up the Place of the Hood or Crest, is cut in two, with four little Threads peeping out, of the same Colour with the Flower, and ripp'd with deep red Chives.

It grows up every where by River-sides, and in marshy Places.

The Leaves of this Plant are biting, bitter, aromatick, and make but a very small Impression upon blue Paper. There is a volatile oily Salt in this Plant, which is very Aromatick, Stomachick, and Diuretical; and the Leaves of it may be used like the Leaves of Tea.

9. *Mentha rotundifolia palustris seu aquatica, major, folio variegato.* The greater round-leav'd Hairy or Water-mint, with a variegated Leaf.

10. *Mentha arvensis, verticillata, hirsuta.* Hairy, Wherled, Wild-mint. J. B. 3. Part. 2. 217. *Calamintha arvensis, verticillata.* C. B. Pin. 229. *Calaminth. arvensis.* I Tabern. Icon. 352.

This *Field-mint* sends forth several square, hoary Stalks, full of Joints, and two small and almost round hoary Leaves set thereat up to the Tops, somewhat like the Leaves of *Penny-royal*, of a quick and sharp, yet sweet Smell, like that also. Towards the Tops of the Stalks and Branches stand with the Leaves many purplish Flowers, several set in a Wherle or Coroner. The Root is small, and endures long, not perishing after Seed-time.

I have observed two Species or Varieties of this *Mint*, one with larger Flowers, furnished with four *Stamina* within, with their Chives besides the Pointal; the other with smaller Flowers, and without any *Stamina* or Threads appearing. Ray.

It grows in moist Places, and where the

Water had stagnated during the Winter. It Flowers after *Midsummer*.

11. *Mentha arvensis, verticillata, folio rotundiore, odore aromatico.* D. vernon, Raii Synops. 123. Wherled Field-mint, with a rounder Leaf, having an aromatick Smell.

12. *Mentha spicata folio variegato.* C. B. Pin. 227. Spiked Mint, with a variegated Leaf. *Menthastrum spicatum, folio crispo, rotundiore, colore partim albo, partim cinereo vel virente.* J. B. 3. Part. 2. 219.

Nature sports wonderfully in the Leaves of this Plant; for sometimes they are all White, sometimes they languish from a White to an herby Colour; sometimes one half of them is White, the other Green, and sometimes they are variously spotted with both White and Green. It is very frequent in Gardens, and I nurs'd it up at Cambridge. Ray.

13. *Mentha angustifolia spicata.* C. B. Pin. 227. Narrow-leav'd Spiked Mint. *Mentha tertia* Dod. Pempt. This is the *Mentha Romana* of Gerarde, and the *Mentha Romana angustifolia, sive Cardiaca* of Parkinson. Spear-mint, or Hart-mint.

It spreads it self far and wide by the creeping of the Fibres hanging at its Roots, as the other Species do; and has reddish, square Stalks a Yard high; from whose Knots at certain Distances come forth Pairs of Branches opposite to one another, so that the Position of the upper, with Respect to the under Branch, is always in the Form of a Cross, such as is also the alternate Order of the Leaves, as well on the Stalks as on the Branches. [This Position of the Leaves is common to all wherled Plants, tho' it is not so manifest and obvious to the Sight in most of them.] They are oblong, sharp, dark-green, not at all hairy, and notched round the Edges. The Wherles of the very small whitish Flowers, which are marked with little reddish Spots, form a Spike in a long Series.

14. *Mentha angustifolia, spicata, glabra, folio rugosiore, odore graviore.* Raii Synops. 123. Narrow-leav'd, Spiked, smooth Mint, with a more wrinkled Leaf, and a heavier Smell.

15. *Mentha sylvestris, longioribus, nigrioribus, & minus incanis foliis.* C. B. Pin. 227. *Mentha spicata, folio longiore, acuto, glabro, nigriori.*

nigriori. J. B. 3. Part. 2. 220. *Menthastrum Campense* & *Zuvolense Lobelii*. Lugd. 673. Field-mint, with longer, blacker, and less hoary Leaves.

This Species is very like the *Menthastrum vulgare rotundifolium*; but the Leaves are blacker, longer, not so hoary and hairy. The Flower is likewise spiked.

It grows in *Friesland* near *Campan* and *Zwolle*.

16. *Mentha Spicis brevioribus & habitioribus, foliis Menthae fuscae, sapore fervido Piperis*. *Raii Synop.* 124. Mint with shorter and firmer Spikes, with the Leaves of *Mentha fusca*, and the burning Taste of *Piper*.

17. *Mentha sylvestris longiore folio*. C. B. Pin. 227. Wood-mint with a long Leaf. *Menthastrum spicatum, folio longiore, candidante*. J. B. 3. Part. 2. 221. *Menthastrum*. Dod. Pempt. 96.

It is two Cubits or a Yard high, and sometimes higher; having jointed, creeping, fibrous Roots. The Stalks are square, and all over hairy; at whose Joints are set oblong, sharp-pointed Leaves, notched round the Edges, hoary with a soft Down, but more so on the under, than on the upper Side, of a pretty agreeable Smell, not near so quick as the *Mentha sativa spicata aut verticillata*, of a like Taste, but somewhat milder. The Flowers are of a white palish Red.

I found this Plant in a Meadow near *Florence*. My very good Friend Dr. *Martin Lister*, found it at a little Rivulet called *Burwell* in *Lincolnshire*. I don't remember to have gone into any Province, says *Clusius*, in which I have not seen the *Mentha sylvestris*, five *Menthastrum*, growing wild near Water, or in marshy Places. *Parkinson* either does not mention this, or has confounded it with *Menthastrum vulgare folio rotundiore*. Ray.

18. *Mentha palustris, folio oblongo*. C. B. Pin. 228. Marsh-mint, with an oblong Leaf. *Menthastrum aquatici genus hirsutum, spica latiore*. J. B. 3. Part. 2. 222. *Calamintha vertia Dioscoridis, Menthastrifolia aquatica hirsuta*. Lob. Icon. 510.

This wild Mint has rough square Stalks, two or three Cubits high: The Leaves are like those of the *Mentha spicata folio acuto*, or like those of the *Menthastrum album*, oblong, notched, hoary underneath with much

Down, but less than the *Menthastrum vulgare rotundiore folio*, of a very biting Taste, and burning Smell, almost like the *Symbrium*, or the *Mentha aquatica rubra*. The Top of the Stalks is divided into three Parts, and bears as it were as many broadish Spikes, and not narrow as in the spiked Mints and *Menthastrums*, not much above an Inch long, in which are purplish Flowers, cut into five Segments, standing in channelled, reddish Flower-cups, that are split into five Prickles. It has a creeping Root.

19. *Mentha aquatica seu Pulegium vulgare*. Water-mint or common Penny-royal. *Pulegium latifolium*. C. B. Pin. 222. *Pulegium*. J. B. 3. Part. 2. 256. Dod. Pempt. 282.

This Water-mint or common Penny-royal, has many weak round Stalks, divided into several Branches, rather leaning or lying on the Ground, than standing upright, whereon are set at several Joints, small, roundish, dark green Leaves. The Flowers of those that grow in Gardens are generally purplish, but those that grow wild are sometimes white, or more white than purple, set in Rundles or Whorles round the Tops of the Branches. The Stalks shoot forth small Fibres or Roots, at the Points as they lie upon the Ground, fastening themselves therein quickly, and overspreading any Ground, especially growing in a Shade or any moist Place; and is propagated by breaking the sprouted Stalks, and thrusting them into the Earth.

Parkinson mentions a greater Species of this Plant, which differs no otherwise from the Plant now described, but in its Size, and in its more upright Stalks. He says it is to be met with on the Sides of the Highway in *Essex*, more frequently than elsewhere; but tho' I was an Inhabitant of *Essex*, I could never yet see it either wild or cultivated. Ray.

20. *Mentha aquatica, seu Pulegium vulgare, flore albo*. Water-mint, or common Penny-royal with a white flower. *Pulegium latifolium, flore albo*. H. R. Par.

21. *Mentha aquatica, Pulegium mas dicta*. Water-mint called Male or upright Penny-royal, *Pulegium latifolium, alterum*. C. B. Pin. 222. *Pulegium mas Plinii*. J. B. 3. Part. 2. 257. Lob. Icon. 501.

This Water-mint or Penny-royal grows with more upright Stalks than the *Pulegium densifurculis*,

furculis, and sometimes a Foot higher also, having Leaves set by Couples upon the Stalks like it, and in some Places other smaller Leaves likewise growing with them. The Flowers likewise grow in Rundles or Wherles round the Stalks at several Joints, but are wholly white, and so remain being planted in Gardens; the Smell and Taste altogether like the other. The Roots likewise creep under Ground like the former.

Matthiolus observed it on the Sides of the Fields in the Road between *Rivolo* and *Taurino*. Sir *George Wheeler* observed it in the Island of *Corfu*, or one very like it, with an upright Stalk, a broad hoary or hairy Leaf; which however seems to be different from that of *Matthiolus*.

22. *Mentha aquatica, tomentosa, minima.* The smallest stocky Water-mint. *Pulegium tomentosum, minimum.* Boc. Rarior. Plant. 40.

This differs in nothing from the common *Penny-royal*, but in its Smallness, and in its longer downy Leaves: For this little Plant do's not rise half a Palm high.

Boccone found it in the Meadows near *Corleone* in *Sicily*.

23. *Mentha aquatica, Satureiæ folio.* Water-mint, with a Savory Leaf. *Pulegium angustifolium.* C. B. Pin. 222. *Pulegium Cervinum, angustifolium.* J. B. 3. Part. 2. 257. *Pulegium Massilioticum.* Tabern. Icon. 356. Hart *Penny-royal*.

It produces taper, slender, reddish, jointed Stalks above a Foot high, and tolerably upright. The Leaves are like the Leaves of *Savory*, sometimes a little dented, of a quick Smell like the common *Penny-royal*, and of a hot biting Taste. The wherled Balls of Flowers rise at the Knots under the Tops of the slender Stalks, being of a faint blew Colour, each of which is composed of four Leaves, out of which shoot forth *Stamina* or Threads of the same Colour with the Flowers. The full grown Root, which is ligneous, and abounds with many whitish tender Sprouts or Shoots like the Roots of *Gratiola*, sends forth wandering Fibres along the Surface of the Earth.

I first observed this Plant upon the River *Po*, near the old Roman Bridge called *Santo Spirito*, and afterwards in the moister Grounds about *Montpelier*. Ray.

Lobel says, that the King's Physicians, and the Professors of *Montpelier* ordered the Apothecaries to make use of this Species preferably to the common *Penny-royal*, because they said, it had more powerful Virtues, and a more agreeable Taste and Smell than it.

24. *Mentha aquatica, Satureiæ folio, flore albo.* Water-mint with a Savory Leaf, and a white Flower. *Pulegium angustifolium, flore albo.* H. R. Par.

25. *Mentha Cretica, aquatica, foliis longioribus & crispis.* Water-mint of Candy, with long and curled Leaves.

It is past all doubt, that *Mentha* comes from the Greek word *Μίνθν*, which they derive from *Μινυδών*, because it restrains Women's Courses, or because much eating of it diminishes and wastes the Seed.

The Poets acquaint us in their Fables, that *Mintha* the Concubine or Mistress of *Pluto*, was transformed into Garden-mint by *Proserpine*, (as it is common for all Wives to bear an irreconcilable Hatred to Mistresses;) which is an eternal Monument of a Woman in an eternal Plant. Which Word the Romans liking better, because the Memory of a Girl, who was ill us'd upon account of Love, was thereby preserved, by changing one or two Letters, made their *Mentha* from the Greeks *Minthè*. *Marcellus virg.*

Dalechampius says, that *Μίνθν* is named by the Greeks *ἀντὶ τῆς μινθῆς* from the Stink of Dung by way of *Antiphrasis*, because it do's not stink. But *Vossius* very justly explodes and rejects those Etymologies by *Antiphrasis*. Some expound *Μίνθν* to be that Down or mossy Hair which covers almost all moist and rotten Things that are exposed to the open Air, such as we see upon Dunghills, and other such nasty Places. Nor is the tender Hairiness which is to be seen upon wild Mint, but especially the *Calamint*, much unlike this.

The principal Use of *Mint* is in the Weakness and Crudity of the Stomach, in a Hick-up, Vomiting, Flatus's, burning Heat, Obstruction of the Liver, Gripping of the Guts, and Giddiness of the Head.

The Garden-mints are most generally made use of in Physick, especially the 13th Species here described. It effectually stops the excess of the *Menstrua* in Women, and cures the Whites. Being applied externally, it takes

takes away the Hardness of the Breasts, and the curdling of the Milk, and cures Head-akes. *Schrod.*

The Leaves of Mint steeped in Milk, hinder it from curdling or turning to Cheese. *Trag.* nor do they suffer it to curdle in the Stomach. Wherefore, says *Caspar Hoffman*, they who use Milk frequently, or who have no other Food, ought to make use of this Herb.

But Milk taken into the Stomach, (provided the Stomach is sound, and in good Condition) ought duly, and according to the Order of Nature to coagulate; and therefore they who have good and sound Stomachs, ought not to look out for such Things as will hinder that Coagulation; but only they who have weak Stomachs, or such as have too much acid in their Stomachs, in order to moderate that Coagulation: For tho' the Milk that is received into the Stomach curdles at first, yet that curdled Part is again dissolved before it goes down into the Intestines. 'Tis true, if it becomes too thick and hard, it is not so easily dissolved, and therefore in that case *Mint* may do good Service.

The Juice of this Herb, and the Water distilled from it, is of frequent Use in stopping of excessive Vomiting. For this End take two Ounces of Mint-water, repeat it once and again, and it will stop the most immoderate Vomitiings. *Hartman.*

For an Anorexy, Loss of Appetite or Squeamishness, an Elixir of *Mint* with its own Spirit by Infusion, with a little Sugar added to it, is an excellent Remedy. *D. Hulse.*

The distilled Water is much used by Women to allay the Pain of the Belly-ake in Children.

Turner is of Opinion, that the Smell of *Mint* strengthens the Brains, preserves and enlarges the Memory.

Authors are not well agreed about its Power of raising Lust, and of hindering venereal Dreams and Pollutions; some maintaining that it is a great Enemy to any Thing of this Kind, while others are as positive on the other Hand, that it is a great Provocative.

Borellus says, that it was revealed to him as a great Secret, that if Women who have even been reputed barren, will apply a Cake made of the *Mentha sylvestris seu caballina* to their Privy-parts, in the Form of a Crown,

before they dally with their Husbands, they will readily conceive; and that this must be done immediately after their Courses are over. *Borell. Cent. 1. Observ. 29, and 30.*

Pliny says, that in the Time of *Pompey* the Great, one found out by Experience, that by eating the Leaves of *Mint* he was cured of the Leprosy, and likewise by applying some of them to his Face; and that used with Vinegar, it cured the Scurff and Dandruff of the Head.

TABLE XC. Fig. 3.

GENUS XI.

Marrubiastrum, Bastard-horehound.

Marrubiastrum or Bastard-horehound, is a Plant with a labiated Flower of one single Leaf, whose upper Lip A is hollow like a Spoon, but the under Lip B is cut into three Notches. Out of the Flower-cup D rises the Pointal E, fixed like a Nail into the hinder Part of the Flower C, and attended as it were by four Embryo's, which afterwards turn to so many roundish Seeds G, shut up in the Husk F, which before was the Flower-cup. To these Marks must be added a certain peculiar Make and Appearance of the *Marrubiastrum*, by which it is distinguished from the *Galeopsis*.

The Species of this Plant are,

1. *Marrubiastrum vulgare*. Common Bastard Horehound. *Sideritis Alpinus Trifraginis folio*. C. B. Pin. 233. Prodr. 3. *Petty* *Antiseal*.

It has a square, hairy Stalk, round which at the Joints grow the Flowers in Whorles, like those of the common *Iron-wort*, being white and gaping, not sticking much out, with loose, hard Flower-cups, divided into five stiff, prickly Jaggs, the uppermost being by far the biggest. Under each Whorle from the Bottom of the Stalk to the very Top of it, grow two small Leaves placed over against one another, but somewhat more oblong and narrower.

I have observed this Plant in *Italy*, and in the South of *France*, in the Fields about *Montpelier*. *Ray.* T t 2. The

The Figure of the *Sideritis quinta Clusii*, is not much unlike this Plant; so that I am apt to believe it may be the same. For *Clusius* made his Description only by looking at the Figure of the Plant, the naked Picture of it having been sent him by *James Plateau*, without any Marks. See and compare the Description.

2. *Marrubiastrum palustre, scetidum. Stinking marsh Bastard Hore-hound. Lamium paludosum, Belgicum, Melissæ folio. H. L. Bat.*

3. *Marrubiastrum Sideritidis folio, caliculis aculeatis, flore candicante. Bastard Hore-hound with an Iron-wort Leaf, and a whitish Flower. Sideritis Genus, spinosis verticillis. J. B. 3. 428.*

4. *Marrubiastrum Sideritidis folio, caliculis aculeatis, flore flavo cum limbo atro-purpureo. Bastard Hore-hound with an Iron-wort Leaf, prickly Flower-cups, and a yellow Flower with a dark purple Edge. Sideritis montana, parvo flore, nigro-purpureo, capite. croceo. Col. Part. 1. 196.*

The Flower is crested, and the least in this Genus, having a rough Head, and not appearing out of the Husks, so that it can hardly be discerned, unless by taking the Plant into one's Hand, being marked with several Colours, viz. dark Purple in the Head and Borders of the little Beards, and yellow in the Middle of the Navel, and lastly whitish in the Neck. The Husks are divided into five broad nervous Borders, with long Prickles not hairy, the rest of the Body being all over hairy, growing by Sixes round the Joints of the Stalk and Branches. The Stalk, which is a Foot and a half high, is square, reddish, hairy at Top, and divided in the Middle into two Wings. The Leaves are oblong, of a faint green Colour, covered over with long Hair, dented about the End on both Sides with three obscure little Teeth; about the Bottom of the Stalk resting upon long Foot-stalks, but about the Top and the Husks wanting them, broader, and having five Nerves running longwise, not cut into Jaggs, but pointed. The Seed is angular, of a dark Ash-colour, and is shut up in a narrow and hairy Husk. The Root is small, ligneous, divided into Fibres, and yellowish. The Taste is sweet and hot, and not unpleasant to the Palate. It is found some-

times with one Stalk only, and sometimes with more.

5. *Marrubiastrum Cardiacæ folio. Bocc. Mus. Part. 2. Tab. 98.*

6. *Marrubiastrum Americanum, floribus in capitulum congestis, Melissæ odore. American Bastard Hore-hound, with the Flowers ranged into a Head, and smelling like Baulm.*

7. *Marrubiastrum Cataractæ folio, calyce florum adunco & aculeato. Bastard Hore-hound with a Cataract Leaf, a crooked and prickly Flower-cup.*

8. *Marrubiastrum Sideritidis folio, caliculis aculeatis, flore flavo cum limbo atro-purpureo, coma flavescente. Bastard Hore-hound with an Iron-wort Leaf, prickly Flower-cups, a yellow Flower with a dark purple Edge.*

9. *Marrubiastrum orientale, flore luteo, minimo, in amplo calyce recondito. Oriental Bastard Hore-hound, with a very small yellow Flower, shut up in a large Flower-cup.*

10. *Marrubiastrum Samium, maritimum, folio subrotundo, canescente. Bastard Hore-hound of Samos, with a roundish and somewhat hoary Leaf.*

TABLE XC. Fig. 4.

GENUS XII.

Lycopus, Wolf's-foot.

Wolf's-foot is a Plant with a labiated Flower of one single Leaf, and somewhat of the Shape of a Bell; for the upper Lip AB can hardly be distinguished from the Parts of the under Lip, so that at first Sight it would appear to be a Flower divided into four Parts. Out of the Flower-cup D rises the Pointal E, fixed into the hinder Part of the Flower C like a Nail, and attended as it were by four Embryo's, which afterwards turn to so many roundish Seeds E, shut up in a Husk that before was the Flower-cup.

The Species of this Plant are,

1. *Lycopus palustris, glaber. Smooth marsh Wolf's-foot. Marrubium palustre, glabrum, C. B. Pin. 230. Marrubium aquati-*



Sideritis . Iron wort .



cum quorundam. J. B. 3. 318. *Marrubium aquatile.* Dod. Pempt. 595.

From a creeping Root rise at once a great many Stalks a Cubit and a half high, square, hairy, hollow, and branched. The Leaves grow by Pairs upon the Stalks over against one another at Distances, and are smooth, very much wrinkled, of a pale green Colour, long and pretty broad, ending in a Point, without Foot-stalks, the lower One's jagged, especially towards the Bottom of the Leaf where they adhere to the Stalk, but the uppermost Ones are rather dented. The Flowers are ranged at the Joints in Wherles, being somewhat crested, small, white, short, divided into four blunt Segments, marked on the Inside with purple Spots, and come out of a Flower-cup that is parted into four or five Segments. Each Flower-cup either adheres immediately to its own Stalk, or else to its own Foot-stalk. There are four small Seeds in each Flower-cup.

It grows every where in great abundance

in watry Places, and by the Brinks of Rivers.

2. *Lycopus palustris*, villosus. Hairy Marsh Wolf's-foot. *Marrubium palustre, hirsutum.* C. B. Pin. 230.

It has hairy, hoary and rough Leaves. It differs from the former by the Leaves being divided into many oblong, narrow, pointed and notched Jaggs at the Middle-rib, after the Manner of the Mountain Scabious in hot Countries.

3. *Lycopus Canadensis* glaber, foliis incis. Smooth Wolf's-foot of Canada, with cut Leaves.

4. *Lycopus* foliis in profundas lacinias incis. Wolf's-foot with Leaves cut into deep Jaggs. *Marrubium aquaticum seu aquatile, foliis tenuius dissectis.* Mor. H. R. Bles.

This Plant is called *Lycopus* from two Greek Words, *λύκος* a Wolf, and *πῶς* Foot, a Plant somewhat resembling a Wolf's-foot in some Part of it.

SECT. III.

Of Plants with a labiated Flower of one single Leaf, whose upper Lip is erect and upright.

TABLE XCI.

GENUS I.

Sideritis, Iron-wort.

Iron-wort is a Plant with a labiated Flower of one single Leaf, whose upper Lip A is upright, but the under one divided into three Parts. Out of the Flower-cup D rises the Pointal E, fixed like a Nail to the hinder Part of the Flower B, and attended as it were by four Embryo's, which afterwards turn to so many oblong Seeds I, shut up in a Husk F, which before was the Flower-cup. To these Marks we must add, that the Flowers of *Iron-wort* are ranged in Wherles in the

Wings of the Leaves H, which are generally cut like a Crest, and differ from the rest.

The Species of *Iron-wort*.

1. *Sideritis hirsuta*, procumbens. C. B. Pin. 233. Hairy Iping Iron-wort. *Tetralix Herbariorum.* Lob. Icon. 523.

It has a longer Leaf than *Here-bond*, pretty much resembling the *Sage-leaf*, but smaller, divided almost into four Parts, rugged, furnished with some Hairs, and not of either an unpleasant Taste or Smell. It sends up square Stalks, generally about a Palm high, sometimes lying all along, hard, hairy, and whitish, having their Tops covered with wherled Balls at Distances, as in the common *Iron-wort*; the Balls consist of little Vessels, in which are Flowers equal to the Flowers of the viscous *Iron-wort*, sometimes of a purplish

plish white Colour; when these decay, there is found in the little Vessels a blackish Seed. The Root is hard, ligneous and lively.

It grows commonly in the dry and stony Places of *old Castile*, and flowers in the Summer; and in some Places it is seen loaded with Flowers as late as Autumn.

2. *Sideritis hirsuta*, procumbens, altera, minimum crenata. *C. B. Pin.* 233. Another hairy, lying Iron-wort, not at all, or but a little notched. *Sideritis quarta*. *Clus. Hist.* XL.

It has several Branches lying along, square, slender, covered over with some Hairs, and begirt with Leaves growing opposite to one another at Distances, which are very much like the Leaves of the common Iron-wort, but something smaller, jagged from the Middle to the Point, and also somewhat hairy. The Tops of the Branches are surrounded with Vessels growing in Wherles, in which stand Flowers like the former in Shape, as far as *Clusius* could gather from the Cut of them; for he never saw the Plant it self, but only the Figure of it sent him by *James Plateau*: So that he was not able to say any Thing either of the Colour of the Flower, or of the Seed.

3. *Sideritis foliis hirsutis*, profunde crenatis. *C. B.* 233. Iron-wort with hairy Leaves deeply notched. *Sideritis Monspensulana*. *J. B.* 3. 426. *Sideritis Monspeliaca*, scordioides, floribus luteis, *Tragoriganum Prassoides Francisci Pennini*. *Lob. Icon.* 525.

Dr. Herman questions whether this is not the *Sideritis Montana Scordioides tomentosa alba*. *H. L. Bat.* The Stalk of which he says, is above nine Inches high, square, flocky, hoary, and is encompassed by small, hoary, soft, stinking Leaves growing close together, somewhat resembling the Leaves of *Scordium*. At the Bosoms of these come forth little crested and labiated Flowers, which are small, pale, and surround the Stalk at Distances in the Form of Wherles: To which succeed little Husks with five Dents, supported by very small or no Foot-stalks, enclosing four round dark Seeds. It is renewed every Year from the fallen Seeds.

4. *Sideritis Alpina*, hyssopifolia. *C. B. Pin.* 233. Hyssop-leav'd Iron-wort of the Alps. *Sideritis Valerandi Dourex*, brevi spica. *J. B.* 3. 427. *Sideritis septima*. *Clus. Hist.* 41.

5. *Sideritis alpina*, hyssopifolia in summite crenata. *C. B. Pin.* 233. Hyssop-leav'd Iron-wort of the Alps, notched at Top. *Tragoriganum tenuioribus foliis, flore candido*. *J. B.* 3. Part. 2. 261. *Tragoriganum secundum Clusii*. *Hist.* 240.

This Plant has very slender and white Shoots, small and long Leaves, somewhat hoary, and of a biting Taste. The Smell is not so agreeable as in the *Tragoriganum primum Clusii* sive *Clinopodium quorundam*, Sir-named *Mastichina*. The Flowers likewise grow in Wherles round the Tops of the Branches, coming forth from Baggs, larger than the others, crested and white. I could not observe the Seed. The Root is like the former, ligneous, hard, and divided into many Parts. *Clus.*

Clusius observed it in Flower, and growing wild only in the Country about *Valentia*.

6. *Sideritis Hispanica*, crenata, procumbens, flore albo, major. Spanish, notched, lying, greater Iron-wort, with a white Flower.

7. *Sideritis Hispanica*, bituminosa, angustifolia, crenata. Spanish bituminous, Par-row-leav'd, notched Iron-wort.

8. *Sideritis Hispanica*, foetidissima, glabra, flore purpurascence, & coma canescente. Uery stinking, smooth, Iron-wort, with a purplish Flower, and a whitish Bush.

9. *Sideritis Hispanica frutescens*, seu lignosior. Frutescent or more woody Spanish Iron-wort.

10. *Syderitis Pyrenaica*, hyssopifolia, minima, procumbens. The smallest, lying, Hyssop-leav'd, Pyrenean Iron-wort.

11. *Sideritis Montana trisido folio*. *Barr. Icon*, Mountain Iron-wort, with a Leaf divided into three Parts.

12. *Sideritis Canadensis*, altissima, Scrophulariæ folio, flore flavescente. The tallest Figwort-leav'd Iron-wort of Canada, with a yellowish Flower. *Betonica Maxima*, *Scrophulariæ folio, flore è luteo pallescente*. *Schol. Botan.*

It rises with square, upright, jointed, and sometimes branched Stalks two or three Foot high. The Leaves grow at the Joints at a great Distance from one another, standing upon Foot-stalks one Inch, or two Inches long, almost a Palm broad, roundish next to the Stalk, ending in a sharp Point, and notched

Marrubium. *Flora-hound.*

Fig. 1.

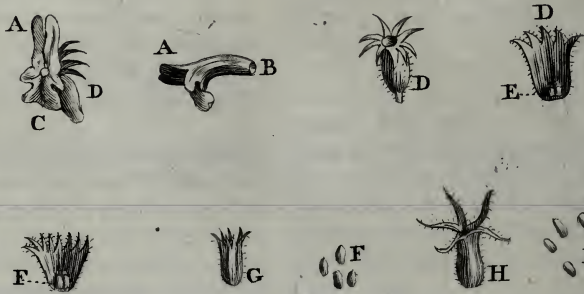
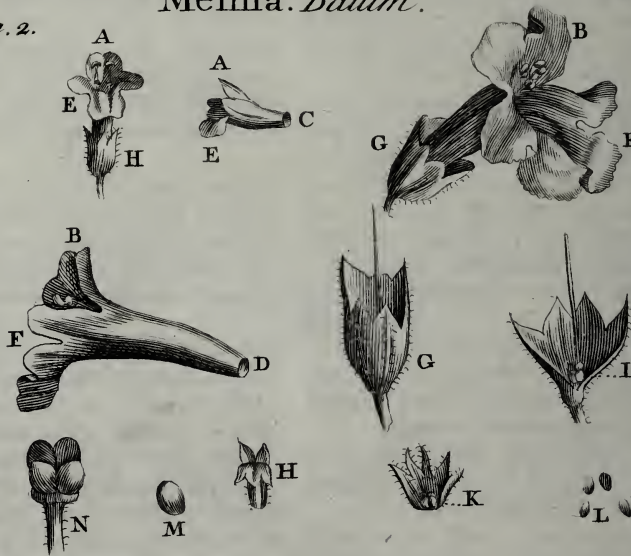


Fig. 2.

Melissa. *Bauhm.*



ed round the Edges much like the Denticulations of *Betony*.

The Spikes growing on the Tops of the Stalks, which are composed of many smaller Flower-cups, about the Thickness and Length of one's Finger, and surrounding them in Wherles, send forth small, crested Flowers of a pale, white Colour.

13. *Sideritis Canadensis*, altissima, *Scrophulariæ folio*, flore purpurascens. The tallest Iron-wort of Canada, with a Fig-wort Leaf, and a purplish Flower. *Betonica maxima*, *scrophulariæ folio*, floribus incarnatis. Par. Bat.

It rises five or more Foot high, with square, jointed, smooth, dark purple Stalks, springing up from a knotty Root like Figwort, which is likewise resembled by the Leaves in some Sort, they being placed on both Sides opposite to one another, wrinkled, sharp-pointed, one Part Green, and the other somewhat Pale. Out of each Side of the Joints comes forth one Branch, upon the Top of which pale Carnation Flowers stand round in a thick-set spiked and wherled Series. They are composed of a Hood divided in two, an auriculated Lip, and several *Stamina* tipped with Chives. Betwixt each Wherle are placed small Leaves, smaller than those that adhere to the Stalks and Branches, smooth, pointed, and sometimes paleish and reddish round the Edges. At last succeed four small, taper, brown Seeds, in oblong Flower-cups, divided into five Segments. The Root consists of a great many white Fibres stretching out lengthwise, and endures three or four Years. The Taste is somewhat biting and aromattick, the Smell dull and heady, betwixt the Smell of *Mint* and *Dead-nettle*. It grows rank in any Soil or Climate, and propagates it self by the fallen Seeds.

14. *Sideritis Cretica*, Maxima, *Ocimastrum valentini facie*. The greatest Candy Iron-wort, with the Taste and Appearance of *Ocimastrum valentinum*.

15. *Sideritis Cretica*, tomentosa, candidissima, flore luteo. The whitest Rocky Iron-wort of Candy, with a yellow Flower.

16. *Sideritis orientalis*, *Phlomidis folio*. Oriental Iron-wort with a Blomis Leaf. From this Genus ought to be excluded, *Sideritis arvensis*, *latifolia*, *glabra*. C. B. Pin. 233. *Sideritis arvensis*, *angustifolia*, *rubra*. C.

B. Pin. 233. *Sideritis Alpinæ Triffaginis folio*. C. B. Pin. 233. The First of which belongs to *Betonica*; the Second to *Galeopsis*; and the Third to *Marrubiastrum*.

This Plant is called *Sideritis*, from the Greek Word *σίδηρος* Iron, because it is accounted an Herb proper to cure Wounds made by Iron. *Sideritis sic dicta à ferro, quasi Ferruminatrix, quod vulneribus ferro factis fuit medela*, of which there was great Use in War; and therefore many Herbs conducing to this End, although of different Forms, were called *Sideritides*, as also *Serratotes*, as *Dioscorides*, *Pliny* and others relate, because Soldiers had most especial Use for them.

All the Species of this Plant in General, are accounted to be astringent and vulnerary, and proper to be applied either inwardly or outwardly: But the chief Use of them is in Ruptures, and the healing up of Wounds.

TABLE XCII. Fig. I.

GENUS II.

Marrubium, Hore-hound.

Hore-hound is a Plant with a labiated Flower of one single Leaf, whose upper Lip A is upright with two Horns, but the under Lip C divided into three Parts. Out of the Flower-cup D rises the Pointal E fixed in the hinder Part of the Flower B like a Nail, and attended as it were by five Embryo's, which afterwards turn to so many oblong Seeds FI, shut up in the Husks GH, which before was the Flower-cup.

The Species of Hore-hound are,

1. *Marrubium album*, vulgare, C. B. Pin. 230. Common white Hore-hound. *Marrubium album*. J. B. 3. 316. *Marrubium sive Prassium album* Tabern. Icon. 539.

It stands upon a single ligneous Root, sending forth many Fibres. From thence rise many Stalks a Foot high, and better, downy, square, branched, clothed with Leaves at each Joint, that grow in Couples, over against one another, roundish, hoary, notched round the Edges, wrinkled, and supported by pretty long Foot-stalks. The Flowers encompass the Stalks at the Joints, being ranged in thick and close Wherles, with very short

short or no Foot-stalks, from hairy channelled Flower-cups, each of which Channels terminates in a Prickle, they themselves being very small and whitish, while that Part which stands for the Hood in the Middle, is split a good length into two Horns; the Lip is entire, sending out a Stripe that looks two different Ways. To each of the Flowers, as in all the other wherled Plants, succeed four Seeds joined together. Tho' the Wherles of the Flowers seem to encompass the Stalk quite round, yet they come forth from the Wings of the Leaves. The Stalks rarely rise above a Foot, or a Cubit high. The Smell of the whole Plant is strong and uneasy.

It grows by High-ways, and in ruinous Places.

2. *Marrubium album, villosum, C. B. Pin. 230. Prodr. 110. White hairy Hore-hound.*

This small *Hore-hound* rises not above a Foot high, with its woody, white, hoary Stalks, spreading into several Branches, whereon are set thick Leaves in the same Manner as in the Candy *Hore-hound*, but smaller and rounder, a little notched at the Edges, smooth and woolly underneath, so as no Cotton-weed is more, but somewhat blackish and rugged on the upper Side. The Flowers stand at Distances at the Tops of the Branches, of a pale purplish Colour, in the like rough Husks.

C. Baubinus gathered it in the Fields about Paris, and Mr. *Magnol* found it in the Island of *Magalon*.

We have no true Figure of this Plant, or of the former. That which *Tragus*, *Fuchsius* and *J. Baubinus* have given us of the former is good for nothing. In that which *Dodoneus*, *Clusius* and *Lobel* followed, the upper Lip of the Flower is arched, whereas it ought to be upright, and split into two Horns. The same Fault is perceivable in that of *Tabernaemontanus*. The Leaves of this Plant have been somewhat better represented in the Cuts of *Marthiolus*, than in any others; but we cannot distinguish whether the Gravers design'd to express the Flowers, or their Flower-cups.

3. *Marrubium album, latifolium, peregrinum, C. B. Pin. 230. Marrubium candidum, folio subrotundo, J. B. 3. 317. Marrubium candidum, Dod. Pempr. 87. Broad-leav'd, foreign, white Hore-hound.* This is the *Marrubium candidum Hispanicum* of *Parkinson*.

The many Stalks which it produces from a Root resembling that of the *Marrubium vulgare*, or common *Hore-hound*, are a Cubit, or two Cubits high, square, covered over with a hoary Down, and hollow with many Wings; at each Joint of which rise Leaves that are soft to the Touch like Velvet, hairy, and of a purer White than in the common *Hore-hound*, hanging by a broader Foot-stalk, jagged round the Edges, longer, than they are broad, blunt, having no remarkable Smell, of a somewhat hot Taste, which yet is not disagreeable. The Flowers encompass the Joints in Wherles, like those of the common *Hore-hound*, and stand in oblong, hoary, soft Flower-cups.

I have observed this wild, and gathered it about *Messina* in *Sicily*. *Ray*.

4. *Marrubium album peregrinum, brevis & obtusis foliis, C. B. Pin. 230. White foreign Hore-hound, with short blunt Leaves. Marrubium Creticum angustis foliis, inodorum, Eyst.*

5. *Marrubium album, angustifolium, peregrinum, C. B. Pin. 230. Marrubium album, angustiore folio, J. B. 3. 317. Marrubium Creticum Tabern. Icon. 539. Parrow-leav'd Candy Hore-hound.*

This is whiter than our *Hore-hound*; having slender, square Stalks and Branches. The Leaves are extremely white, oblong, dented, nervous; but the Nerves or Ribs do for the most part run straight along the Leaves longwise. The Flowers are ranged in Wherles on the Branches, with two small Leaves under them, and sometimes they are placed in Spikes, being small, white, with an upright Leaf cut in two, and a hanging Lip, and standing in white channelled Flower-cups. It has a more agreeable Smell than the common *Hore-hound*.

6. *Marrubium Hispanicum, supinum, calyce stellato & aculeato. The low Spanish Hore-hound, with a starry and prickly Flower-cup. Alysson Galeni. Clus. Hist. 387. Dod. Pempr. 88. Galen's Madwort.*

It grows with a square Stalk a Foot high, divided into many Branches from the very Root, which are hoary, and covered over as it were with Flox, about which grow Leaves like those of the common *Marrubium*, but shorter, and more curled and downy, without Smell, and bitter to the Taste. The Flower-cups

er-cups surround the Branches in Wherles at Distances, being generally five in Number, full of Prickles, and White, out of which starts up the Flower, like that of common *Hore-bound*, but of a different Colour, to-wit, purplish. The Seed which is in the prickly Flower-cups, is reddish, and much like the Seed of the other *Hore-bound*. The Root is hard, divided into many Parts, and annual.

Clusius observed this Plant growing only in one Place in Spain, viz. at *Elda*, a Village, in a Burying-place, in which are many Tombs with *Arabick* Inscriptions upon them, in the Kingdom of *Valentia*, seven *Spanish* Miles below *Orbuela*; and this he saw in Flower and Seed, about the Middle of the Month of *March*.

7. *Marrubium Hispanicum*, supinum, foliis sericeis argenteis. The low *Spanish Hore-bound* with silken Leaves of a Silver Colour. *Marrubium album*, sericeo, parvo & rotundo folio. *Bocc. Mus. Part. 2. 78. Tab. 69.*

This Plant rises above a Span high, and is found in the Islands of the *Archipelago*.

From this Genus ought to be excluded, *Marrubium Cardiacum*, *fortè primum Theophrasti*. C. B. 230. because its true Name is *Cardiaca*, and ought to be ranged under that Genus. *Marrubium Nigrum satidum*, *Ballote Dioscoridis*. C. B. Pin. 230. because it is a Species of *Ballote*. *Marrubium palustre hirsutum*. C. B. Pin. 230. *Marrubium nigrum, rotundifolium*. C. B. Pin. 230. *Vide Galeopsis*. *Marrubium nigrum, longifolium*. C. B. Pin. which belongs to *Phlomis*.

Marrubium, in Greek *Prasson*, is a Latin Word, and not of Greek Original: For the Second *r*, is always read without an Aspiration. It is thought to be thus nam'd, *quia tabidè & marcescentibus conducit*, because it is good for consumptive and wasted Persons. And *Dioscorides* says, that the Decoction of the dry Leaves and Seed together, or the Juice of the green Leaves with Honey, is administered to phisical Persons.

Or it is called *Marrubium*, *quod folia marcida & squalentia sint quasi rubigine exesa*, because the Leaves are withered and rough, as if they were eat with Rust.

8. *Marrubium album*, candidissimum & villosum. The whitest and most hairy white *Hore-bound*.

9. *Marrubium orientale*, foliis subrotundis, flore purpureo. Idem flore albido. *Oriental Hore-bound*, with roundish Leaves, and a purple flower. The same with a whitish flower.

10. *Marrubium orientale*, angustissimo folio, flore albo. *Oriental Hore-bound*, with a very narrow Leaf, and a white flower.

11. *Marrubium orientale*, folio *Cataria*, flore albo. *Oriental Hore-bound*, with a *Cataria* Leaf, and a white flower.

The first Species is of most general Use in Physick, tho' the others are not without their Virtues and Efficacy. The Juice of this Plant mixt with Honey, as *Dioscorides* prescribes, or rather the *Syrupus de Prassio*, gives great Relief to asthmatick, consumptive Persons, and such as are troubled with a Cough. For it is an excellent *Pneumonick*, or Remedy for the Lungs. The Powder of the dried Leaves, kills Worms in the Guts. It is said likewise to do good Service in hard Labour, and bringing away the *Lochie*.

The *Syrupus de Prassio Mesues*, as *C. Hoffman* observes, is very hot, and therefore is to be administered rather to old, than to young Men, rather to cold, than to hot Constitutions.

Take of the Syrup of *Prassium* two Ounces, of the Oil of *Tartar per Deliquium*, one Scruple; mix them. Let the Patient take a Spoonful of this every now and then. This is a Remedy for the *Faundice*, equal to any whatsoever.

Dioscorides writes, that *Hore-bound* hurts the Bladder, and the Kidneys, which it exulcerates by frequent using of it.

The Antients made use of *Hore-bound* by way of Snuff in the *Faundice*, in Order to purge away the Bile through the Nose, which sometimes fixes it self most obstinately in the Eyes.

I have found by innumerable Experiments, says the famous *Borelli*, that the Tops of white *Hore-bound* infused in White-wine, and drank for three Days successively, have a wonderful Efficacy in bringing down Women's Courses, [nor do's it only accelerate the *Menstrua*, but likewise hastens the voiding of the After-birth.] in strengthening the Stomach, and in restraining and putting a Stop to an ill Habit of Body, and the *Green sickness* in young Girls,

and all this more effectually, if they are mixed with *Germander* and *Centaury*. *Borell. Observ. Medic.* 289.

The Conserve of the Flowers of white *Hore-bound* prepared with Honey, and administered for forty Days to the Quantity of an Ounce every Day, restored a certain Nobleman to perfect Health, who had long labour'd under a *Schirrhus* of the Liver, after having taken other Medicines prepared of *Ebony* and *Chalybeates* without Success. *S. Paul. Quadripart. Botan.* p. 389. *Simon Pauli* had this Observation from *Zacutus. Prax. admir. Lib. 2. Obser.* 48.

This same Nobleman drank every Morning a little of the distill'd Water of *Hore-bound* with the Root.

Galen says, that by reason of its Bitterness, it opens the Obstructions both of the Liver, and of the Spleen, purges the Breast and Lungs of Phlegm, procures Women's Courses, and being applied outwardly, it both cleanses and digests. A Decoction of *Hore-bound*, says *Matthioli*, is available for those that have bad Livers, and for such as have Itches and running Tettors.

If, says the same Author, you boil two Ounces of fresh *Hore bound* in three Pints of good *White-wine*, with the Roots of *Bugloss*, *Elecampane* and *Agrimony*, of each one Dram and a half; *Rhubarb* and *Lignum Aloes*, of each one Dram, till half be consumed, and strained; hereby is made a most excellent Medicine to cure the *Yellow-jaundice*, that comes by the Obstruction of the Vessels, and the overflowing of the Gall; if two Ounces of it, with a little Sugar put to it to sweeten it, be taken fasting for nine Mornings successively; but he advises those that have an Ague, while they take this Medicine, to make the Decoction of it in Water, and not in Wine. The Decoction of this Plant is a singular Help to Women that are troubled with the Whites, if they sit over it while it is warm. The same also heals any Scabs, whether moist or dry, if the Parts affected be bathed therewith; if the Herb be bruised, and put into new Milk, and set in any Place over-pestered with Flies, it will soon destroy them all.

The Leaves of white *Hore-bound*, says *Mr. Tournefort*, do not redden blue Paper; they are very bitter, and of a penetrating

Smell. 'Tis very probable, that in *Flanders* this Smell is much like the Smell of Musk, since *Dodonæus* affirms it. The natural Salt of the Earth, which is bitter, and composed of Sea-salt, of *Sal Armoniack*, and of Nitre, seems to be united in this Plant with a considerable Portion of Sulphur, Phlegm, and terrestrial Particles. This Plant by a Chymical Analysis, yields Abundance of acid Phlegm, a great deal of Oil and Earth, a little urinous Spirit, concrete volatile Salt, and some fixed Salt not much lixivial. And so it is not strange, that *White Hore-bound* is a great Dissolver, and a good Opener. It is very proper for Asthmatick Persons, and for those that have the *Jaundice*. The Juice of this Plant is prescribed for Rheums and obstinate Coughs, from two to six Ounces; the Infusion in *White-wine*, to the Quantity of a Drinking-glass, and the *Pisane* to several Glasses. Two *Pugils* of white *Hore-bound* is sufficient for a Decoction, but you must first strain it through a wet Cloth, and dissolve in it half a Dram of soluble chalybeate Tartar, or twenty Grains of the chalybeate Flowers of *Sal Armoniack*. One or two Ounces of the Syrup of *Hore-bound* are prescribed for the *Menstrua*; but there is commonly added to it, two Drams of the Tincture of *Mars*, and two Ounces of *Orange-flower-water*.

TABLE XCII. Fig. 2.

GENUS III.

Melissa, Baulm.

Baulm is a Plant with a labiated Flower of one single Leaf, whose upper Lip A B is upright, roundish, and cut in two, but the under Lip E F cut into three Parts. Out of the Flower-cup G H rises the Pointal I, fixed like a Nail into the hinder Part of the Flower-cup C D, and attended as it were by four Embryo's, which afterwards turn to so many Seeds N K, which are roundish M L, shut up in a Husk H G, which before was the Flower-cup. To these Marks we must add, that the Flowers of *Baulm* rise in the Wings of the Leaves, but that they are not altogether wherled.

The Species of Baulm are,

1. *Melissa Hortensis*. Garden Baulm. C. B.

Pin. 229. *Melissa vulgaris*, odore Citri. J. B.

3. Part. 2. 232. *Melissa*. Dod. Pempt. 91.

Baulm, which is a most grateful Herb to the Bees, and which from thence took its Name, grows up with Stalks above a Cubit high, square, smooth, and almost glittering, divided into many Wings placed over against one another, solid, hard, stiff and brittle. The Leaves grow in Pairs at the Joints, opposite to one another, hanging at Foot-stalks about an Inch long, [The lowermost Leaves on the Stalk have longer Foot-stalks, but the upper Ones shorter.] like the Leaves of *Calaminth*, only the lowermost Ones are three times larger, of a shining dark green Colour, covered with a short Down, notched round the Edges, smelling like Orange, and striking the Tongue with a certain Acrimony; out of whose Wings peep wherled Flowers, [in two Bunches, leaning upon several very short Foot-stalks, in the same manner as in *Calaminth*,] whitish, or of a pale red Colour, with a short Pipe, and the upper Jag cut in two, with a deep coloured Lip, and two lateral Jaggs, standing in a rough, channelled Flower-cup cut in two, the upper Part turning upwards with three Teeth, but the under Part turning downwards, and cut in two, or divided into two long, sharp Segments. The Root is ligneous, parted into many Divisions, taper, shooting down into the Earth obliquely, with many whitish Fibres, and several curled Sprays running deep down into the Earth. It does not grow wild in England, that I know of, but is only cultivated in Gardens. *J. Bauhinus* saw it grow wild in Ditches about Geneva. It flowers in June, July and August, the Stalks wither in Winter, but the Root continues alive. Ray.

2. *Melissa Romana*, molliter hirsuta & graveolens. H. R. Par. Stinking Roman Baulm, somewhat hairy and soft. *Melissa Romana*, hirsutior. Moris. H. R. Bles.

3. *Melissa humilis*, latifolia, maximo flore purpurascens. Low broad-leav'd Baulm, with a very large purplish Flower. *Melissa*. Trag. 12. *Lamium montanum*, *Melissa folio*. C. B. *Pin.* 231. *Melissa adularina* quorundam, amplis foliis, & floribus non grati odoris. J. B. 3. Part. 2. 233. *Melissa Fuchsii*. Lob.

Icon. 515. This is the *Melissophyllon Fuchsii* of Parkinson.

It has a fibrous, bitter, and somewhat biting Root. The Stalks are about a Foot high, square, jointed, and full of Pith. The Leaves are like the Leaves of *Galeopsis*, oblong, wrinkled and hairy, much resembling the *Melissophyllon*, shining with a black Green, and having a somewhat biting Taste. The Flowers come forth by Threes and Fours out of each Knot, in oblong Bottles or Baggis, which are loose and hairy, all of them looking forwards, and hanging down, longish, without Smell, somewhat resembling the Flowers of *Archangel*, but larger, and not distinguished by any Hood, only the under Lip hanging down, and larger than the other Leaves, of a purple Colour; tho' in some of the Flowers they are of a whitish Purple, or a pale and light Purple. *J. Bauhinus* attributes to the Flower an upright Helmet or Hood, with *Scamina* appearing out of the Yawn or Opening. The Seed is big, blackish and uneven.

It grows common in Woods in the Western Parts of England, for Example, in Devonshire about Totnes, and in Pembrokeshire, about Haverford-West. I have likewise observed it in the hilly Forrests near Geneva, and in other Places beyond Sea. Ray.

4. *Melissa humilis*, latifolia, maximo flore albo. Low, broad-leav'd Baulm, with a very large white Flower. *Lamium Pannonicum* L. albo flore. Clus. Hist. xxxvii.

It rises with a square, thick Stalk, above half a Yard and better, furnished with many Joints towards the Root, at which break forth Leaves not much unlike the Leaves of Nettle, notched round the Edges like them, but much larger, and sometimes broader than one's Hand, rough, but not pricking or stinging. From the Middle of the Stalk upwards, at each Joint, grow Flowers in Bells, in Sixes, in Eights, and sometimes in Tens, not blowing all at once, but one after another, much larger than the Flowers of *Archangel*, of a deep red, and almost purple Colour, gaping like a Helmet or Casque, with the under Lip (whose Borders are jagged) cut in two, and furnish'd at the Sides with many little Beards, the inner Part being marked with purple and white Lines, with four

Stamina and a Pointal lurking under the Calque; of a stinking and disagreeable Smell, as the whole Plant is, if bruised, and likewise of an unpleasant and bitter Taste. The Seeds, which are like the Seeds of *Molucca Baulm*, are contained in jagged Seed-vessels. The Root is thick, fibrous and perennial, growing bigger every Year, and producing new Shoots.

5. *Melissa humilis angustifolia*, flore maximo. Low, narrow-leav'd Baulm, with a very large Flower. *Lamii Pannonici primi species altera*. Clus. Hist. xxxvii.

6. *Melissa Pyrenaica*, caule brevi, Plantaginis folio. Pyrenean Baulm, with a short Stalk, and a Plantain Leaf. *Galliricum folio rotundiore, flore magno, Violaceo*. J. B. 3. 313.

Roots about the Bigness of one's little Finger, fibrous and brown, produce roundish Leaves an Inch and a half long, nervous, notched, and standing upon a Foot-stalk a Palm long. The Stalks are nine Inches high, square, bestrewed with Hairs, and parted into many Joints: At which are placed Flowers as it were in Wherles, labiated and gaping, violacious, half an Inch long, with a very short upper Lip cut in two, and an under Lip large, and cut into three Segments. The Flower-cup is of a greenish Purple, divided into two Notches, the upper cut in two, and the under cut into three Divisions, in which are ripen'd four roundish bay Seeds.

It grows in the *Pyrenean Mountains* at *Bigerriones*.

This Plant is called *Melissa* from the *Greek* Word *Μέλι* Honey, because the Bees when they are gathering of Honey from the Flowers, are particularly delighted with this Plant; and are so much in Love with it, that if their Hives be besmeared with the Juice of it, they will never forsake them.

The *Arabian Physicians* have extolled the Virtues of *Baulm* for the Passions of the Heart in a wonderful manner, which the *Greeks* have not mentioned: For *Serapio* says, it is the Property of *Baulm* to exhilarate the Heart and Mind, to revive the fainting Heart, and to prevent one's falling into Swoons, to strengthen the Weakness of the Spirits, to drive away all troublesome Thoughts and Cares out of the Mind, and to abate the

excessive Bearing of the Pulse. *Avicenna* says in his Book of Medicines proper for the Heart, That it is hot and dry in the second Degree; that it makes the Heart merry, and strengthens the vital Spirits, both by the Sweetness of Smell, Austerity of Taste, and Tenuity or Subtily of Parts; by which Qualities it likewise conduces very much to the Ease of the rest of the inward Parts and Bowels. From hence it is highly extolled both by *Forestus* and others, in the Palpitation of the Heart, and in fainting Fits. It is recommended by *Rondoletius*, in the Palsy, the Falling-sickness, Giddiness of the Head, and other cold Affections of the Brain, either boiled or macerated in Wine, and so drunk. It is commended above all Things by *Gratacolus*, for comforting the Memory, and sharpening the Judgment and Wit.

It is of great Use in the stopping of Women's Courses, and the *Lochia* of lying in Women, in the Suffocation and Flatus's of the Womb. It likewise cures a stinking Breath.

A Tansy or Candle made of Eggs, and the tender Tops of this Plant, or the Juice, with some Sugar and Rose-water, is often given to Women in Child-bed, when the After-birth is not thoroughly voided, and for their Faintings after, or upon their hard and long Labour.

The external Use of it is in Baths and Cataplasms from the Womb, or to comfort the Joints and Sinews; for the Stings of Bees, Wasps, &c.

Caspar Hoffman advises to gather it for the Shops in the Spring, before it flowers; because after it is once in Flower, the Plant has a nasty Smell.

It is likewise prescribed for Madness, in this Manner, Take of the Leaves of *Baulm* one Handful, let them be cut very small, and infused in four Ounces of the Spirit of Wine, add half a Dram of Pearl powdered. The Dose is two Spoonfuls. This was a Secret in a certain Family at *Montpelier River*.

If you desire a Formula of a Medicine to restrain Melancholy, says *Simon Pauli*, take this: Take of the Conserve of *Baulm* one Ounce, of *Burrage* and *Bugloss* of each half an Ounce, of the Confection of *Alkermes* one Dram, with the *Syrupus quinque aperientium*; by the joint Use of which, *præmissis universaliibus*,



Calamintha. Calamint.

Fig. 1.

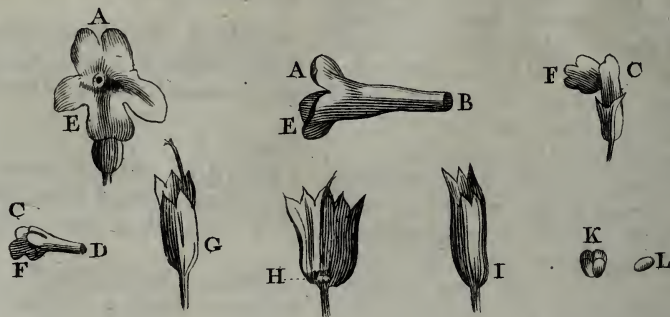
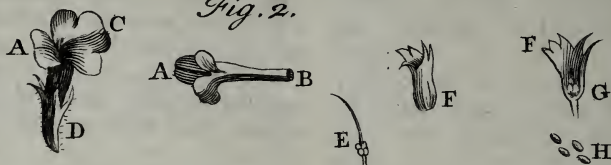
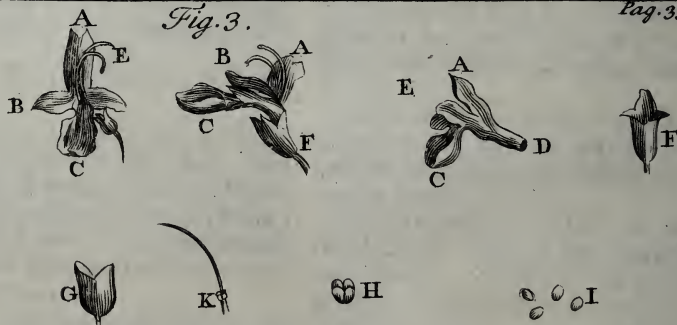


Fig. 2.



Clinopodium. Field-basil.

Fig. 3.



Rosmarinus. Rosemary.

universalibus, I remember to have restored a young Woman to her former Health, tho' she was likewise troubled with the *Green-sickness*.

Our Women provoke and procure to themselves their Courses by the Decoction of *Baulm*. Nay, I know one or two who bring down their Courses with very good Success, only by putting green *Baulm* into their Stockings or Shoes. *Simon Pauli*.

There is an ordinary *Aquavita* or Strong-water distilled, says *Parkinson*, and called *Baulm water*, used generally in all the Land, which, because it hath nothing but the simple Herb in it, which is too simple, I will recommend a better Receipt to you. Take two Pounds of *Baulm* while it is young, and tender, of *Mint* and *Sage* of each one Pound, bruise them well in a stone Mortar, and put them into a Pot or Limbeck, and add thereto of *Aniseeds* four Ounces; of *Cloves*, of *Nutmeg*, of *Cinamon*, of *Ginger*, of *Cubebs*, of *Galangal*, of each one Ounce; being all a little bruised, and put into two Gallons of good Sack, if you would have it excellent good, or else into four Gallons of Ale, and so still it as *Aquavita* is stilled; and let it distil as long as you find any Strength in the Water, yet so that the latter Water be not so weak, as to make all the rest white: Whereunto put a Pound of Sugar, shaking it well before you set it away; and after it hath rested so one Month, you may use of it as Occasion shall require: For it is of special Use in all Passions of the Heart, Swoonings and faintings of the Spirits, and for many other Purposes whereunto the Herb is here declared to be available. *Park. Theatr. Pag. 43.*

Frederick Hoffman not only praises its admirable Virtues in the Affections of the Head, especially Melancholy, in Hysterick Passions, in restoring the Course of the *Menstrua* and *Lochia*, and the purifying of the whole Mass of Blood; but likewise mentions the Essence of *Baulm* from *Boyle* and *Le Febure*, who had it from *Paracelsus*; and says, that taken inwardly, it makes an old Man become young again, after the Nails have fallen from his Fingers and Toes, and the Hairs fallen from his Head, and that it makes them grow again; and that it restores the *Menstrua* to old Women, and so makes them renew their Age. Of this also is prepared a Water with Wine,

and the fresh Skin of Orange, which by Rectification turns to a Spirit, and this Spirit by a strong Infusion of green *Baulm-leaves* cut small, degenerates into an Essence. There may likewise be made of this Plant, a Conserve of the Flowers, and a simple or compound Syrup.

This Plant, says *Mr. Tournefort*, is excellent for the Suppression of Urine. Put two Pounds of it into an *Alembick*, with as much *Herniaria*; strew them over with Salt, put a little Water to them, and leave them to digest for three Days; after which distil them in *balneo Mariae*; cohobate the distilled Water three times upon fresh bruised Herbs, and keep the last Water in a Bottle wellcorked. In the Suppression of Urine, you must give every four Hours four Ounces of it mixt with *White-wine*; and you must anoint the lower Belly, the *Perinaum*, and the Region of the Reins with the following Oil: Infuse in the Sun for three Days in the Oil of *Oleaes*, or boil gently in this Oil a Handful of *Palmer's*, ten *Cantharides*, and a Scruple of *Aniseed*. You may, if you please, give a Glister with the Decoction of *Mallows*, of the *Melissa Tragi*, and of *Herniaria*, in which have been boiled two Drams of Nephritick Wood rasped.

TABLE XCIII. Fig. 1.

GENUS IV.

Calamintha, Calamint, or Mountain-mint.

Calamint is a Plant with a labiated Flower of one single Leaf, whose upper Lip AC is upright, roundish, and cut in two; but the under Lip EF cut in three. Out of the Flower-cup G rises the Pointal H, fixed like a Nail into the hinder Part of the Flower BD, and attended as it were by four Embryo's, which afterwards turn to so many Seeds K, which are roundish L, shut up in a Husk I, which before was the Flower-cup. To these Marks must be added, That the Flowers rise out of the Wings of the Leaves, and stand upon branched Foot-stalks.

The Species of *Calamint* are,

1. *Calamintha vulgaris*, vel officinarum Germaniæ. C. B. Pin. 228. Common Calamint of the Shops, *Calamintha flore magno, vulgaris*. J. B. 3. Part. 2. 228. *Calamintha Montana*. Dod. Pempt. 98.

The common *Calamint*, that usually grows abroad in the Fields with us, is a small Herb seldom rising above a Foot high, with square, hoary and ligenous Stalks, and two small hoary Leaves set at a Joint, about the Bigness of a *Marjoram-leaf*, or not much bigger, a little dented round the Edges, and of a very penetrating, quick Smell, as is the whole Plant: The Flowers stand at several Distances on the Stalks, almost from the Middle upwards, which are small and gaping like those of *Mint*, and of a pale blueish Colour; after which follow small, round, blackish Seeds. The Root is small and ligenous, with several small Sprigs spreading within the Ground, and dies not, but endures many Years.

It flourishes in the Summer, and perfects its Flowers and Seed from June to Autumn.

It is rarely to be met with growing wild in England, tho' it is to be seen on the Highways, in Ditches and Hedges, &c.

The Leaves of it are larger, broader, and for the Size shorter than that Species which smells like *Penny-royal*. However the Flowers of that which grow wild with us, as far as I remember, are larger than those of that other. For, as *Parkinson* observes, the Flowers vary in bigness, in the common *Calamint*: And *Caspar Bauhinus*, in his *Prodromus*, describes a common *Calamint* with a small Flower, as a different Species.

2. *Calamintha procerior, magno flore, sylvæ fontis Bellaquei*. The taller Calamint, with a large Flower, of *Fontainebleau Forrest*.

3. *Calamintha Pulegii odore, five Nepe-ra*. C. B. Pin. 228. Calamint smelling like *Penny-royal*, or *Pepp*. *Calamintha flore minore, odore Pulegii*. J. B. 3. Part. 2. 229. *Pulegium sylvestre, five Calamintha altera*. Dod. Pempt. 98.

It rises up every Year with several Stalks half a Yard high, slender, square, stiff, reddish in open Places, branched, and bending towards the Earth. The Leaves stand at

Distances opposite to one another, being small, hairy, cut in with thin-set Notches, almost triangular, with the heady Smell of *Penny-royal*, or *Sisymbrium*, with a piercing and lively Taste. The Flowers grow in Whorles at the Joints, being of a pale purple or blue Colour, with a long Pipe, a Lip cut in three, and resting upon long Foot-stalks. From the Wings of the Leaves, on both Sides goes forth a common Foot-stalk, which is oblong, slender, and supporting several Flowers upon particular Foot-stalks. The Flower-cup, which is also the Seed-vessel, is oblong, narrow, channelled, containing at the Bottom four very small, reddish Seeds sticking together.

It flowers late, and generally about Autumn; and comes up plentifully upon Ditches at the Sides of Fields, and on the publick Roads, especially in barren and sandy Ground.

4. *Calamintha Montana, præalta, Pulegii odore, dentatis foliis, floribus dilute cæruleis, ex longo, ramoso & brachiato pediculo prodeuntibus*. Bocc. Mus. Part. 45. Very high, Mountain Calamint, smelling like *Penny-royal*, with dented Leaves, and pale blue Flowers standing upon a long branched and armed Foot-stalk. *Calamintha præalta, Pulegii odore*. Ejusd. Tab. 40. *Calamintha præalta Pulegii odore altera* Icon, ex *Salaudia* Ejusd. Tab. 38.

It rises to the Height of four geometrical Palms, and stands upon numerous fibrous Roots. Its Stalks resemble those of the *Len*, and grows on the Brinks of the River *Piane*, in the *Venetian* Territory. The Difference of the Smell, which is like that of *Penny-royal*, and the Arrangement of the Flowers, do constitute this Species in the Rank of new and beautiful Plants. I have observed the same *Calamintha montana præalta* upon the Sides of a Lake near *Anney*, a Town in *Savoy*; but with narrower and more flocky Leaves. Ray.

5. *Calamintha magno flore. C. B. Pin. 229. Calamint with a large Flower. Calamintha montana flore magno ex calyce longo*. J. B. 3. Part. 2. 229. *Calamintha montana, præstantior*. Lob. Icon. 512. This is the *Calamintha magno flore* of *Gerarde* and *Parkinson*.

The Leaves grow over against one another all along the square Branches, standing upon

upon Foot-stalks half an Inch long, being an Inch and a half in length, not quite so broad, somewhat hairy, and deeply dented round the Edges. Out of the Bosom of every one of these, comes forth one Foot-stalk, half an Inch long, bearing four or five Flowers standing upon their own proper Foot-stalks, purplish in the gaping Mouth or Opening, and appearing an Inch above the long, fringed, and channelled Flower-cup. The Root is a great deal longer than in the common *Calamint*.

It grows upon the woody Mountains of *Tuscany*, and on the Mountains near the great Abbey of the *Carthusian Monks*.

6. *Calamintha magno flore albo*. H. R. Par. *Calamint with a large white Flower*.

7. *Calamintha vulgaris*, exiguo flore. C. B. Pin. 229. & Prodr. Common *Calamint* with a very small Flower.

8. *Calamintha humilior*, folio rotundiore. Low *Calamint*, with a roundish Leaf. *Hedera terrestris*, vulgaris. C. B. Pin. 306. *Chamaecissus* sive *Hedera terrestris*. J. B. 3. App. 855. *Hedera terrestris*. Dod. Pempt. 394. Ground-ivy, Gill-go-by-ground, Ale-hoof, or Tun-hoof.

It spreads its self far and wide by slender square Stalks, lying and creeping upon the Ground, and shooting Roots into the Earth from the Joints. The Stalks, which sustain the Flowers, are slender, hairy, square, reddish, weak, and hardly able to bear themselves up, a Palm or half a Foot high, cloathed with Leaves in Pairs, opposite to one another, at Distances, resting upon long Foot-stalks, roundish, or gradually ending in a Point, dented round the Edges, hairy, and purplish while they are yet tender, and first sprout out. The Flowers are placed in Wherles at the Joints of the Stalks, three, four, or more of them coming forth from the Wings of the Leaves, being blue, oblong, labiated of both Sides, the upper Lip being split in two, and bending back at the Sides, and the under Lip divided into four Segments, with a Tube variegated within with deep purple Spots and Lines, and the Mouth or Yawn covered with short, white Hairs like a Sort of a Down. The Pointal is smaller, and divided into two Horns. The Flower-cup is oblong, narrow, channelled, with the Brims parted into five short Segments; when

the Flower decays, it swells into a Belly, and contains four oblong Seeds. The Plant is bitter to the Taste. The Smell is somewhat unpleasant, and pretty much approaching that of *Mint*, or is a Smell betwixt *Archangel* and *Mint*.

It generally flowers with us in the Month of *April*, and grows about Hedges, and Places full of Rubbish.

9. *Calamintha humilior*, folio rotundiore, flore purpureo. Lower *Calamint*, with a roundish Leaf, and a purple Flower. *Hedera terrestris* vulgaris, flore pupureo. H. R. Par.

10. *Calamintha humilior*, folio rotundiore, minor & elegantior. The lower, smaller, and more beautiful *Calamint*, with a roundish Leaf. *Hedera terrestris*, vulgaris, minor & elegantior. C. B. Pin. 306.

11. *Calamintha incana*, Ocimi foliis C. B. Pin. 228. Hoary *Calamint*, with Basil Leaves. *Calamintha folio & flore parvo*, incana. J. B. 3. Parr. 2. 230. *Calamintha secunda*, incana, Lob. Icon. 514.

12. *Calamintha frutescens*, Satureia folio, facie & odore. Frutescent *Calamint*, with a Savory Leaf, and the Taste and Smell of the same. *Satureia Montana*. C. B. Pin. 218. *Satureia durior*. J. B. 3. 272. *Thymbra*. Dod. Pempt. 283.

The Leaves in this are narrower than in the Summer Savory, especially those that come first out, much harder, and ending in sharp and prickly Points, and of a light green Colour. The Stalks are taper and hairy, and have many more Joints than the Garden-savory; from whence both the Leaves and Branches are thicker-set, and more numerous. And by this Mark alone it may immediately at first Sight be distinguished from the other. The Branches in this Species do not run out into such a Length as in that. The Flowers grow here and there out of the Wings of the Leaves, upon a longish common Foot-stalk, two or three of them together, and sometimes also single, crested, with the Calque sometimes turning back, a Lip divided in two, of a faint, white, purplish Colour. The Flower is divided into five long, narrow Segments. The Plant is shrubby, and lives many Years. It agrees both in Taste and Smell with the Garden Savory.

It grows in France upon the Hills about *Montpelier* and *Nismes*. It is likewise to be seen in some Parts of *Tuscany*.

13. *Calamintha Hispanica frutescens*, Mari folio. Spanish frutescent Calamint, with a Marum-leaf. *Saurcia Hispanica, frutescens Mari folio*. Elem. de Boran.

14. *Calamintha Cretica*, angusto, oblongo folio. Candy Calamint, with an oblong, narrow Leaf. *Cinopodium Creticum*. P. Alpin. Exot. 265.

It rises up with six seven, fewer or more Stalks nine Inches high, upright, round and slender: The Leaves are like those of the Mother of *Thyme*, both in Size, Shape and Order, covering the Stalks very close by Pairs, at very small Distances from one another. Betwixt the Leaves and the Stalk come forth Flowers of a Vine-colour, to which succeed very small Seeds. The whole Plant breathes the Smell of Mother of *Thyme*, but sweeter, and warm to the Taste. The Root is long, slender and ligneous, without either Taste or Smell.

The Plant, if you except the Strell, is very like the *English* wild *Basil* of *Cusius*, or the beautiful Species of wild *Basil* of *Caspar Bauhinus*.

15. *Calamintha minima*, annua, Thymi folio. The smallest, annual Calamint, with a *Thyme*-leaf.

16. *Calamintha Cretica*, angusto oblongo folio, odore Ciri. Candy Calamint, with a narrow oblong Leaf, smelling like *Citron*.

17. *Calamintha orientalis*, annua, Ocimi folio, flore minimo. Oriental annual Calamint, with a *Basil* Leaf, and a very small Flower.

Calamintha comes from two Greek Words *καλός* beautiful, and *Μέντη* Mint, as if one should say beautiful Mint.

The first Species is most generally made use of in the Shops: The Herb only is used, for the Root is useless. It is hotter and more biting than *Mint*, and consists of subtile and volatile Parts. It is chiefly used for the Stomach and the Womb; it brings down Womens Courses, provokes Urine, opens the Liver, and cures the Cough. *Schrod.*

Hoffman says, That it cures Obstructions of the Liver, dissolves *Flatul's*, and makes the Courses flow duly, either infus'd in Wine,

or drank in Powder with Wine. There may likewise be made of this Herb Fomentations and Cataplasms for the same Purposes.

Dioscorides says, That it is useful for such as have a Rupture, such as are troubled with Convulsions or Cramps, with Shortness or Difficulty of Breathing, and with cholerick Torments or Gripings in their Belly or Stomach; it likewise conduces in the *Yellow-jaundice*, and being taken in Wine stayeth Vomiting, and taken with Honey and Salt, kills all manner of Worms in the Body. Either taken inwardly with Wine, or the green Herb applied outwardly, it cures the *Leprosy*, by drinking Whey after it. If it be applied in Wool as a Pessary to the privy Parts of a Woman, it draws down the Courses, and eases the Pains of the Mother; but at the same time kills the Birth, and therefore to be refused to Women with Child.

It takes away blue and black Marks or Spots in the Face, and makes black Scars to become of a natural Colour, if the green Herb, and not the dry be boiled in Wine, and laid upon the Part, or if the Part be washed with the Decoction. Being laid to the Huckle bone or Haunch, where the Pain of the *Sciatica* seizes and rests, in process of Time it so heals the Part, that it entirely draws forth and spends the Humours that caused the Distemper. This was a Course followed in the Days of *Dioscorides*, but our Physicians and Surgeons do not use it now a Days.

The Juice of it dropped into the Ears kill the Worms that breed there. The Leaves boiled in Wine, and drunk, provokes Sweat, and opens the Obstructions both of the Liver and Spleen. It helps those that have a *Tertian-ague*, the Body being first purged, by taking away the cold Fits. The Decoction, with some Sugar put to it afterwards, is very serviceable for those that are troubled with the overflowing of the Gall, such as have an old Cough, and that are scarce able to breathe, or such as have any cold Distemper in their Bowels, and are troubled with the Hardness of the Spleen: For all which Purposes, both the Powder called *Diacalamenthos*, and the compound Syrup of *Calamint*, are most effectual.

The Leaves of the 8th Species, i. e. the *Calamintha humilior*, folio rotundiore, are bitter, somewhat Aromatick, and do not redden blue Paper; which makes one judge that their

their Salt has an Affinity in some Sort to *Tartar Vitriol*. This Salt has but a small Mixture of *Sal Ammoniack* in it, but a good deal of both Sulphur and Earth. This Plant yields no volatile concrete Salt, by a chymical *Analysis*, but gives us a little urinous Spirit; all the rest that is drawn from it is Acid, Alkali, Oil and Earth; and these two last Parts take up the greatest Room in this Herb. This low *Calamint* is very opening, cleansing, and vulnerary. *Camerarius* and *Cesalpinus*, put a great Value upon it, for voiding both Urine and Stone. *Simon Pauli* order'd the Powder of this Plant to be drunk, mixed with an equal Quantity of Sugar, and steeped in the distilled Water of the same Plant. For the rest; it closes up Ulcers; and it is used in Broths and Pisans that are prescribed for such as are phtisical, and such as void purulent Urine. *Lobel* made use of it to prevent the *Gout*, and to open the Obstructions of the Bowels. They prepare the Extract, the Syrup and the Conserve of the Leaves and Flowers of this Plant.

TABLE XCIII. Fig. 2.

GENUS V.

Clinopodium, Field-basil.

Field-basil is a Plant with a labiated Flower of one single Leaf, whose upper Lip A is upright, roundish, and generally split in two; but the under Lip C divided into three Segments. Out of the Flower-cup D rises the Pointal E, fixed like a Nail into the hinder Part of the Flower B, and attended as it were by four Embryo's, which afterwards turn to so many Seeds G that are oblong H, shut up in the Husk F, which before was the Flower-cup. To these Marks must be added, that the Flowers of the *Field-basil* are ranged into Wherles.

The Species of *Field-basil* are,

I. *Clinopodium Origano simile, elatius, majore folio.* C. B. Pin. 225. The taller *Field-basil* with a large Flower, resembling *Bastard-marjoram*. *Clinopodium quorundam, Origani facie.* J. B. 3. Part. 2. 250. *Acinos.* Lob. Icon. 504.

This *Clinopodium* or great *Field-basil* shoots

its Root flauntingly down into the Earth, and is furnished with some Fibres. The Stalks rise above a Cubit high, and are slender, square and hairy. The Leaves resemble those of the wild *Marjoram*, but not so sweet smell'd, growing opposite to one another at the Knots, and are hairy on both Sides. The Flowers grow close together in great Rundles or Wherles, and are oblong, crested and purple, standing in small, oblong, channelled Flower-cups, that end in five Prickles, three above, and two below over against one another. But each of the Flower-cups do's not stand upon its own proper Foot-stalk, but several of them together upon one common Foot-stalk. To each of these succeeded four small reddish Seeds.

It grows every where among Briars, and in Thickets.

2. *Clinopodium Origano simile, humilius, alterum, minore folio.* C. B. Pin. 225. Another lower *Field-basil*, with a smaller Leaf, resembling *Bastard-marjoram*.

3. *Clinopodium Origano simile, flore albo.* C. B. Pin. 225. Hort. Edinburg. *Field-basil* with a white Flower, resembling *Bastard-marjoram*.

4. *Clinopodium arvense, Ocimi facie.* C. B. Pin. 225. *Wild Field-basil*, resembling *Wassil*. *Acinos Multis.* J. B. 3. Part. 2. 259. *Ocimum Sylvestre, Acinos.* Dod. Pempt. 280.

It stands upon a single, small, and fibrous Root. The Stalks rise a Palm high, and are hairy, reddish, square, and branched, tho' towards the Bottom they appear to be round; when they lean, they shoot down Fibres into the Earth. The Leaves grow in Pairs at the Joints upon Foot-stalks opposite to one another, resembling the Leaves of Mother of *Thyme*, but larger (others compare them to the Leaves of small *Basil*) cut in round the Edges with gentle Notches, green on the upper Side, and whitish underneath, having conspicuous Nerves or Ribs, and standing upon short Foot-stalks. The Flowers are ranged in Wherles upon the Tops of the Stalks and Branches, standing in oblong channelled Flower-cups, with a narrow Neck, and a swollen Belly, being of a purplish Colour, and crested, with a Lip split in three, and a Hood or Casque turning somewhat back. In the Middle of the Lip there is a white Spot, and within that a purplish Crest.

cent. The Seeds are like the rest of this Genus.

It grows wild in Mountains, chalky, dry and gravelly Places. It flowers in the Month of *June*; but it often varies in the white Colour of its Flower.

The *Acinos Anglicum Clusii*, seems to have been only a Variety of this, differing with Leaves not notched.

5. *Clinopodium montanum*. C. B. Pin. 225. *Mountain Field-basil*. *Acini pulchra species*. J. B. 3. Part. 2. 260. *Clinopodium Austriacum*. Clus. Hist. 353.

This *Austrian Field basil*, has slender, square, hard, jointed Stalks nine Inches high; and Leaves not much unlike the Leaves of the *Acinos vulgare*, sharp pointed, notched, green, of no disagreeable Smell, but somewhat biting to the Taste. It bears, at each Joint upon the Tops of the Stalks, Flowers not unlike the *Clinopodium vulgare*, but twice or thrice as big; growing by two's or threes together out of the Bosome of the Leaves, being of a deep purple Colour (tho' they are sometimes found to be white) generally hanging downwards, and bending forwards. To which succeed, as in the said *Conopodium*, swollen Seed-vessels or Husks, in which are contained black Seeds, about the Size of *Mint*, or common *Field-basil-seed*. The Roots are many, hard and black, with many Fibres annexed to them.

I have observed it grow wild upon the Ascet of Mount *Jura*. It grows likewise, according to the Testimony of *Clusius*, upon the Mountains of *Baden*, that hang over the Baths, and the other neighbouring Hills that run out to the *Darube*, &c. It flowers in *May*, and the Seed is ripe in *June*. Ray.

6. *Clinopodium Lusitanicum*, spicatum & verticillatum. Spiked and whorled Portuguese *Field-basil*. *Bugula odorata Lusitanica*. Cornur. 46.

It has a Root beset with black Fibres, and not at all creeping along on the Ground; from which grow up four or five round hairy Stalks, which are jointed on that Part where the Leaves grow; which Leaves are long, hairy, of a dark green Colour, divided into two or three Jaggs, resembling on both Sides a crooked Tooth: But the nearer they are to the Ground, they are so much the larger, and the farther they are from it,

they are so much the shorter and narrower; so that they appear almost as small as Hairs in those Parts where the Flowers are placed. For the Flowers among the Leaves encompass the Stalk on all Sides in Whorles, from the Middle almost quite up to the Top, and are guarded, as it were by a formed Hedge, by those little intermediate Leaves. The Flowers are of a violet Colour, formed into a Pipe, one End of which rises out of small Flower-cups; but the other, as in our Bugle, forms a Sort of a yawn or Mouth, while it gapes. When the Flower decays, which commonly happens in the Month of *August*, the little Flower-cup swells with white Seeds, which afford a new Offspring the following Year. It is sown in the Month of *March*.

The whole Plant has a very sweet Smell, and is delightful to the Eye, and with us scarce rises a Foot high.

7. *Clinopodium alpinum*, *Hysopi folio*. *Field-basil of the Alps*, with an *Hysop*-leaf. *Brunella alpina*, *glabro folio*, *angusto*, *integr.* Moris. Hor. R. Bles.

8. *Clinopodium Creticum*, *fruticosum*, *foliis lanceolatis*. Shrubby *Field-basil of Candy*, with *Lanceol*-leaves.

9. *Clinopodium orientale*, *Origani folio*, *flore minimo*. *Oriental Field-basil*, with a *Passard-marjoram*-leaf, and a very small Flower.

10. *Clinopodium orientale*, *hirsutum*, *foliis inferioribus Ocimum*, *superioribus Hysopum referentibus*. *Oriental*, hairy, *Field-basil*, the lower Leaves of which resemble *Basil*, and the upper one's *Hysop*.

Clinopodium is formed from two Greek Words *κλιν* a Bed, and *πους* the Foot: For the Flowers of this Plant, as *Dioscorides* says, do, by their orbicular Figure, represent the Foot of a Bed, being ranged at Distances like the Flowers of *Hore-bound*.

I know no Author that has given any Account of the Virtues of this Genus, or any Species of it; for in regard *Galen* says, That *Clinopodium* consists of thin Parts, and may be accounted to be in the third Degree of Heat and Dryness, being somewhat sharp and bitter to the Taste, neither of which, says *Matheolus*, can be found in these; yet because in Make and Appearance it so much resembles the true Plant, they may bear the same

same Name till their Virtues and Qualities are better known. *Dioscorides* says, That his *Clinopodium* is applied to those who have Convulsions and Cramps, Ruptures or Burstings, or Strangury; that it is a Remedy against the Sting or Bite of venomous Serpents, and that it brings down Womens Courses, expells the dead Child, takes away such Warts as are long and hang down, if it be drunk in Decoction for several Days successively. It stops a Looseness, if it be boiled in Wine till such Time as two Thirds of the Liquor are consumed and wasted, to such as have no Fever; but for such as have a Fever, it must be boiled in Water.

TABLE XCIII. Fig. 3.

GENUS VI.

Rosmarinus, Rosemary.

Rosemary is a Plant with a labiated Flower of one single Leaf, whose upper Lip is split in two, and turns up backwards, with hooked Stamina or Threads E; but the under Lip B is divided into three Parts, the middle Part C being hollow like a Spoon. Out of the two teeth'd or three teeth'd Flower-cup F, rises the Pointal K, fixed like a Nail into the hinder Part of the Flower D, and attended as it were by four Embryo's, which afterwards turn to so many Seeds H, that are roundish I, and shut up in a Husk G, which before was the Flower-cup.

The Species of *Rosemary* are.

1. *Rosmarinus hortenſis*, angustiore folio. C. B. Pin. 217. Garden Rosemary, with the narrower Leaf. *Rosmarinus coronarius*, fruticosus sive nobilior, angustiore folio. J. B. 2. 25. *Rosmarinum coronarium*. Dod. Pempt. 272.

Rosemary is an Under-shrub of a most delicious Scent, smelling like Incense (from whence it had the Name of *Libanotis*) very well known by reason of its Usefulness, and has got the Name of *Coronarius*, because it is much used in Garlands; this *Rosemary*, I say, grows above a Yard high, with small Branches, or Rods annexed to it, which are of an ash Colour, on which stand several Leaves together at Distances, [there are only two opposite to one another, and many others

growing out of their Bosoms] pretty stiff, narrower than the Leaves of *Lavender* and shorter too, white on the under Side, and of a deep Green on the upper Side. The Flowers break forth from the Wings of the Leaves, being of a whitish blue Colour, shaped like the Flowers of *Sage*, but smaller, with a Lip hollow like a Saucer, and spotted. The crooked long Fibres appear out of the Yawn under the uppermost Leaf.

It flowers early in the Spring, and almost the whole Summer over. It is planted in Gardens, but not in Seed, but by Slips; whether it differs in Specie from the wild Sort, with a broad Leaf, I am in some Doubt; but I do not find it delivered by any Author, whether it differs from it when it grows wild. That which is planted, has both broader and more wrinkled Leaves, and do's not well bear the Winter.

2. *Rosmarinus hortenſis*, angustiore folio, argenteus. H. R. Par. Garden Silver-coloured Rosemary, with a narrow Leaf.

3. *Rosmarinus spontaneus*, latiore folio. C. B. Pin. 217. Broad-leav'd or wild Rosemary. *Rosmarinus coronarius*, fruticosus, ignobilior. J. B. 2. 25.

This is smaller and lower than the former, with Branches not so ligneous. It has broader, more wrinkled, and greener Leaves, little, or not at all hoary or white on the under Side, thinner set on the Shoots and Branches. This Species is very tender, and do's not well bear our Winter.

It grows in great Abundance in Spain, so that such as sail in the open Sea at many Leagues Distance, can easily smell it, even before they see Land. It grows in so great Plenty in the South of France, that the Inhabitants hardly burn any other kind of Wood.

Whether this differs from the former Garden-species, I am not able to determine: For the Garden-species that is planted, produces broader-leav'd Plants; and it is known likewise in other Sorts of tender Under-shrubs that grow up from a Slip, that they bear the Winter better, and remain more firm against the Injuries of the Weather, than such as grow up from the Seed.

4. *Rosmarinus folio variegato*. Rosemary with a variegated Leaf. *Rosmarinum striatum sive aureum*. Park. Theatr. 74.

This *Rosemary* differs not in any Thing from the former, but in the Leaves, which are edged and striped, or pointed with a beautiful yellow golden Colour, which continues so the whole Year throughout; tho' it is fresher in Summer, than in Winter.

5. *Rosmarinus Almeriensis*, flore majore, spicato, purpurascens. *Rosemary* of *Almeria*, with a larger, spiked, purplish Flower.

The Species of *Rosemary* without either Flower or Fruit, may be known by their hard, shrubby Stalks, and narrow, oblong Leaves, that smell like *Campfire*.

It is thought to be called *Ros*, either because it is of a roscid Nature, or because it is sprinkled like Dew, or because it is used in sprinklings, which seems the most probable; and it is called *Marinus*, either because it thrives well in Places by the Sea-shore, or because it is of a Marine, i. e. a bitter Taste.

The Greeks call it *Libanotis*, and *Stephanomantica* is added to that Appellation, to distinguish it from other *Libanotides*, that are umbelliferous Plants. The Latins call it *Rosmarinus*, quasi *Rosa Marina*, says Parkinson. Cordus upon Dioscorides calls it *Libanotis coronaria*, according to the Greek. Dalechampius upon Pliny takes it to be the *Casia nigra* of Theophrastus, and *Anguillara*, to be the *Casia* of Hyginus; acceptable to the Bees, and therefore sown near their Hives; and also to be the *Cneorum nigrum* of Theophrastus, and *Lavender* to be his *album*, but they do not agree in their Characters, and therefore cannot be the same; as we may have Occasion to shew, when we come to *Lavandula*.

The first Species is most in Use, and the Leaves and Flowers of that (called in the Shops *Anthos*) as also the Seed. It warms, dries, cuts tough Matter, and is of a mixt Taste, betwixt biting and bitter; it is likewise somewhat astringent. It is a chief Remedy for the Womb, and for the Head. Its principal Use is in the Affections of the Head, and Nerves, in an Apoplexy, Epilepsy, Palsy, Giddiness, Lethargy, &c. It sharpens the Sight, and cures a stinking Breath. It resolves Obstructions of the Womb and Spleen, cures the Jaundice and Whites in Women, and comforts the Heart. It is of Use outwardly in Catarrhs, and in the Distempers

thence arising, by burning it, and taking in the Smoak, in strengthening the Womb, &c.

The Smoak and Vapour of this Plant in Plague-time, cures the Air, and renders it wholesome. Dioscorides says, that this Herb cures the King's-evil, if the Decoction of it in Water be given the Patient to drink before Exercise, and after Exercise if the Patient washes, and drinks some Wine. Mizaldus recommends the Seed drunk in Wine for the Jaundice.

It is good in a Palsy, and other affections of the Nerves, to use for common drink Beer or Wine in which the Tops of *Rosemary* have been infused.

To sharpen the Sight it is of good Use, to eat the Flowers with Salt and Bread on a fasting Stomach.

The Plant dried and cut, and smoak'd like Tobacco, is reckoned to have great Efficacy in a Cough, wasting of the Lungs, or Consumption.

Mr. Jaques saw and observed many *Tertian-agues* exquisitely cured in an Hospital at Paris, called *la Charité*, by the sole Use of the chymical Oil of *Rosemary* administered in Decoctions of the same Plant before the Fit came on. The Dose is four or six Drops. Sim. Paul. Botan. Class. 2. p. 133.

They make Combs in France of the thick Trunks and Stocks of *Shrub-rosemary*, with which they who desire to be preserved from a Giddiness, comb their Heads every Day. But the Cheat is apparent as soon as it is found out; since they make Combs very dexterously of Willow, Pear-tree, Lime, &c. and after they have polish'd them very well, they drop upon them a few Drops of the Oil of *Rosemary* or *Spiknard*; and thus those cunning Varlets impose upon silly People.

F. Hoffman says, that it is the most excellent of all the cephalick Plants, because of its absterfise and attenuating Virtue, by cutting all thick and pituitous Humours, and opening the obstructed Passages; from whence it do's Wonders in the Apoplexy, Epilepsy, Catarrh, Deafness, Asthma, Jaundice, Inflation of the Stomach, Cholick, Stone, the Whites in Women, Barrenness, Green-sickness, and Gout, if it be distilled with the rectified Spirit of Wine. If the Flowers or Leaves be boiled with Wine and Honey, till one half is boiled away, and taken before going to Sleep, it is

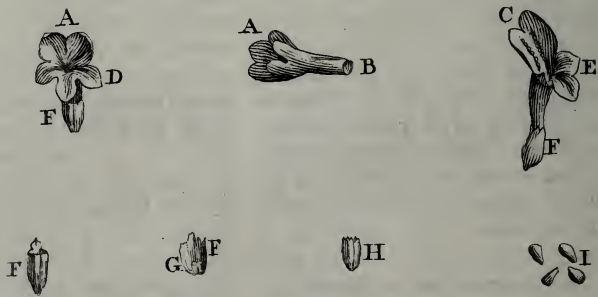
Fig. 1.

Thymus. Thyme.



Fig. 2.

Lavandula. Lavender.



of wonderful Effect towards curing of an *Asthma*, and clearing the Voice.

It cures the Pains of the Gums and Teeth, by Rheum falling down upon them, or from Putrefaction, which causes a bad Smell, or stinking Breath. It is likewise said to cure a bad Memory, by heating and drying up the cold Moisture of the Brain, and quickening the Senses. It is also very comfortable in all the Ailments of the Stomach, puts a stop to nauseating and Squeamishness, procuring Strength to the Stomach, and helping Digestion, either by taking the Decoction or the Powder in Wine.

There is an Oil made by Insolation, in this Manner: Take what Quantity you will of the Flowers, and put them into a strong Glass well stopped, digest them in warm Horse-dung fourteen Days; after which take them out, and unstop them, tye a fine Linnen Cloth over the Mouth of the Glass, and turn the Mouth down into another strong Glass, which being set in the Sun, an Oil will distil down into the lower Glass, which you must preserve for several precious Uses, both internal and external, as a sovereign Balm to cure the Diseases before mentioned, to clear a dim Sight, and to take away Spots, Marks and Scars in the Skin.

TABLE XCIV. Fig. 1.

GENUS VII.

Thymus, Thyme.

Thyme is a Plant with a labiated Flower of one single Leaf, whose upper Lip A C is upright, and generally split in two, and the under Lip E F split in three. Out of the Flower-cup G rises the Pointal H fixed like a Nail into the hinder Part of the Flower B D, and accompanied as it were by four Embryo's, which afterwards turn to so many Seeds I, shut up in a Husk K, which before was the Flower-cup. To these Marks must be added, That the Stalks are hard and ligneous, and the Flowers gathered into Heads L M.

The Species of this Plant are,

1. *Thymus capitatus*, qui *Dioscoridi*. C. B. Pin. 219. The true Thyme of the Ancients, and particularly of *Dioscorides*. *Thy-*

mum Creticum, sive *Antiquorum*. J. B. 3. Part. 2. 262. *Thymum Cephaloton*. Dod. Pempt. 276. This is the *Thymum legitimum capitatum* of *Parkinson*, and the *Thymum Creticum* of *Gerarde*.

Thyme is an Under-shrub sometimes a Foot high, having many ligneous, slender and white Branches, which are cloathed at Distances by narrow, small, and whitish Leaves set over against one another, of a biting Taste, which in some Places fall off in the Winter; for wheresoever I have seen this Plant growing wild, says *Clusius*, either in the Winter, or Beginning of Spring, I have always seen it without Leaves; but on both Sides where the Leaves either sprung out, or left any Vestiges, there stuck out little oblong Heads, like those in *Origanum onites*, made up of very small, green Leaves, set so close together, and so many in Number, that they appeared to be but one longish Leaf. I could not, says he, observe the Heads with the Flowers in the green Plant; but at *Seville*, where there is great Plenty of it, (for there they know no other Sort of *Thyme*) large Bunches of it dried were shown me with the Leaves and longish Heads, which still retain'd their purplish Flowers spreading a most grateful Smell: For they use it boiled in Water to wash and purge the Hogsheads in which they keep their Wine: Nor is it of less Use to give a sweet Smell to those Vessels in which they preserve their Grapes.

It not only grows plentifully about *Seville*, but likewise at *Cales*, in that Part where the Island is joined to the Continent by a Bridge, and likewise all over *Andaluzia* upon the Coast, that lies to the South. I found it in the rocky Places near *Syracuse*, a City of *Sicily*: And *Wheeler* found it in the Island of *Corfou*, and either another Species or Variety of it, with smaller Leaves growing in Ranks, in the Island *Cibiera*, now *Cerigo*.

According to the Testimony of *Ballinius*, it is so frequent all over *Greece*, that no Herb grows more easily upon the Mountains; where according to the Diversity of the Place, it bears either a white, a blue, a purple, or a mixt Flower.

2. *Thymus vulgaris*, folio latiore. C. B. Pin. 219. Common Thyme, with a broad Leaf. *Thymum durum*. Dod. Pempt. 276.

3. *Thymus vulgaris*, folio tenuiore. C. B. Pin. 219. Fine-leav'd common Thyme.

Thymum

Thymum vulgare, rigidius, folio cinereo. J. B. 3. Part. 2. 263.

That which we commonly call *Thyme* at this Day, has recommended it self to Culture in Gardens by its pleasant and agreeable Smell, and has a ligneous Root furnished with a great many Sprays. The Branches are taper, and likewise ligneous, somewhat hairy, adorned with Leaves resembling those of Mother of *Thyme*, but more narrow, hoary, and Ash-coloured, endued with a biting Taste, and growing in Wherles at Distances. The Wherles of the Flowers are at smaller Distances, and represent the Figure of a Spike: They are of a purplish or white Colour, thrusting out as it were a Lip cut in three, with one Jagg standing upright, pushing forth a purplish Pointal out of their Centre, and standing in striped, hairy Flower cups, like those of the Mother of *Thyme*.

Mr. *Ray* doubts whether this differs from the former Species, because, says he, others have not distinguished them.

4. *Thymus vulgaris, tenuiore folio, candido & graveolente.* C. B. Pin. 219. Common *Thyme*, with a small, white, and stinking Leaf. *Thymus variegato folio.* H. R. Par.

5. *Thymus supinus, candicans, odoratus.* Low, whilish and sweet-smelling *Thyme*; *Thymum supinum, candicans, odoratum.* Bot. Monsp.

Mr. *Magnol* mentions this Species, which he found in the barren Grounds towards *Clapies* and *Facou*, and distinguished it by this Name, because he says it is lower than the former, has white Leaves, and is very sweet-smell'd. This perhaps is the Species which *Parkinson* describes by the Name of *Thymum durius candidius*, which grew up to him in his Garden, from a Seed mixt with the Seeds of *Thymum durius vulgare*, with smaller Branches, whiter or more hoary Leaves, growing more thinly on the Stalks, and with both Taste and Smell more quick and penetrating.

6. *Thymus inodorus.* Unflavoury *Thyme*. *Thymum inodorum.* C. B. Pin. 219. Prodr. 108.

This is an Under shrub, and hoary by reason of the Down that covers it, with a ligneous Stalk covered with a hoary wrinkled Bark, which is divided into many Bran-

ches not a Palm long, and they again into others, and ranged as it were into a Ball; which are begirt at Distances by very short and very narrow Leaves, many of them being joined together, almost without either Smell or Taste: On the Tops of the Stalks stand several purple Flowers, resembling the Flowers of common Mother of *Thyme*, both in Form and Disposition.

It grows plentifully on the Shores, in sundry Places, in the Kingdom of *Valentia*.

It is of a somewhat biting Taste; for which Reason it both attenuates and cuts. Its chief Use is in tartarous Affections. 1. Of the Lungs, as the Asthma, and Cough. 2. Of the Joints, as in the Gout. It opens all the Bowels, and gives an Appetite. It is applied outwardly in cold Tumours, Bruises, Wind in the Guts, and Pains of the Joints. It is used by our People instead of *Cole*, for they boil it in their Broth. It refreshes the Stomach, and promotes Concoction by its kindly Heat.

7. *Thymus capitulis minoribus, Massiliensis.* H. R. Par. Small-headed *Thyme* of *Marseilles*.

8. *Thymus Lusitanicus, folio capillaceo villosa, capite magno, purpurascete, oblongo.* Portuguese *Thyme*, with a capillaceous hairy Leaf, and a large, oblong, purplish Head.

This eighth Species has a thick, ligneous Root, fastened in the Earth by a great many clinging Sprays; many Stalks, (twenty or more) which form as it were a Sort of Turf, being jointed, stiff, only nine Inches high, and undivided. Upon these grow at the Knobs, half an Inch distant from one another, long, narrow, small Leaves, opposite to one another, like the Leaves of *Garden-savory*, stiff, furnished with long white Hairs, especially at the Sides; out of whose Wings grow other smaller ones: The Leaves that grow towards the Top extend themselves, and of those broad and pointed Leaves, which are hairy and purplish, is composed as it were a plated, *Hare-foot*, thick Head, an Inch, or an Inch and a half long. Betwixt those foliaceous Plates or Coats, peep out small, hooded, reddish Flowers. The Smell of the whole Plant is agreeable, and very much like the Smell of *Cassidony* or *Sticadore*.

9. *Thymus Lusitanicus*, folio capillaceo villosa, capite magno, purpurascens, rotundo. *Portuguese Thyme*, with a capillary hairy Leaf, and a large, purplish, round Head.

10. *Thymus Lusitanicus*, cephalotos, capitulo majori. *Coped Portuguese Thyme*, with a large Head.

11. *Thymus Lusitanicus*, cephalotos, capite minori. *Coped Portuguese Thyme*, with a smaller Head.

12. *Thymus Lusitanicus*, cephalotos, squamis capitulorum amplioribus. *Coped Portuguese Thyme*, with the Plates or Coats of their Heads larger. *Tragoriganum Djummi capite, Hispanicum*. Barr. Icon. Bocc. Mus. Part. 2. 50. Tab. 43.

13. *Thymus Lusitanicus*, cephalotos, maritimus, glaber & lucidus. *Coped, Paris time*, smooth and shining *Portuguese Thyme*.

14. *Thymus cephalotos, autumnalis*, longiore folio. *Coped autumnal Thyme*, with a longish Leaf. *Satureia floribus in Summitate dispositis*. H. L. Bat. *Satureia Virginiana*. Par. Bat. *Serpentaria Virginiana*. Bocc. Mus. Part. 2. 161. Tab. 108, & 115.

15. *Thymus capitatus*, qui *Dioscoridis*, flore caeruleo. *Bellon. Obs. Lib. 1. Cap. 2.* The true *coped Thyme* of *Dioscorides*, with a blue Flower.

16. *Thymus capitatus*, qui *Dioscoridis*, flore niveo. *Bellon. Obs. Lib. 1. Cap. 2.* The true *coped Thyme* of *Dioscorides*, with a snowy Flower.

17. *Thymus capitatus*, qui *Dioscoridis*, flore suaverubente. The true *coped Thyme* of *Dioscorides*, with a charming red Flower.

18. *Thymus capitatus, orientalis*, capitulis & foliis longioribus. *Oriental coped Thyme*, with longer Heads and Leaves.

19. *Thymus Orientalis*, *Majoranae* folio. *Oriental Thyme*, with a *Marjoram* Leaf.

Thymus is so called $\Sigma\theta\delta\ \tau\theta\ \Sigma\theta\mu\varsigma$ from the Mind, quod adhibeatur iis qui animi Deliquium patiuntur ob crassos humores, because it is given to those who faint away, by reason of gross Humours oppressing them; or $\Sigma\theta\delta\ \tau\theta\ \Sigma\theta\mu\alpha\sigma\epsilon\omega\varsigma$; & $\tau\theta\ \Sigma\theta\mu\varsigma$, from Perfume or Incense, quod hoc veteres in sacris quæ igne accenso fiebant primum usi sunt, because the An-

cients first used this in their sacred Ceremonies or Religion where they employed Fire.

The true *Thyme*, or if that cannot be had, our Garden *Thyme*, (as nearest to it in Virtues, tho' not altogether so effectual) helps to purge Phlegm by Stool, if, as *Dioscorides* prescribes, it be taken with Honey, Salt, and Vinegar. The Decoction of it is of good Use for such as are troubled with a Shortness or Difficulty of Breathing. It kills the Worms in the Belly, procures Womens Monthly-courses, expells the Secundine or After-birth, after it hath helped the Delivery of the Child; and causes easy Expectations of rough Phlegm, being taken with Honey in an Electuary. It dissolves Tumours or Swellings when they are fresh, the Juice of it mixed with some Vinegar, takes away all hanging Warts, by anointing them with it, and dissolves clotted Blood. Applied with Wine and Meal, it relieves those that are troubled with the *Sciatica*. It cures Dimness of Sight, and is of good Use in Meats and Broths, to warm and comfort the Stomach; for even in the time of Health, says *Dioscorides*, it is very proper to season Victuals.

Pliny attributes to it the same Virtues, and moreover adds, That it is given to such as have the *Falling-sickness*, whom the very Smell of *Thyme* awakens out of their Fits. It is found by Experience, says *Etius*, that if four Drams of dried *Thyme* in Powder be given in *Oxymel* fasting, to such as have the *Gout*, it eases them; for it purges Choler and other sharp Humours; and that if one Dram be given with *Mead*, it dissolves the hard Swellings of the Belly. It is good for such as have Pains in their Sides, or in their Loyns and Hips; mixed with Wine it is with good Success applied to the swollen Cods.

TABLE XCIV.

GENUS VIII.

Serpillum, Mother of Thyme.

Mother of *Thyme*, differs from *Thyme* in its lower Stalks, not so hard and ligneous.

The Species of this Plant are,

1. *Serpillum latifolium, hirsutum. C. B. Pin. 220. Prodr. 108. Broad-leav'd, hairy, Mother of Thyme.*

This Mother of *Thyme* grows in most respects like the ordinary Sort, spreading on the Ground in the same Manner, but that the whole Plant is all over hoary by reason of a Down with which it is covered, and that the Leaves are somewhat broader and rougher, or as it were hairy, smelling like *Bitumen* or hard *Pitch*, which is not very agreeable to any one. The Stalks are many, slender, long, crooked, and cloathed with roundish Leaves that stand upon oblong Foot-stalks. The Heads of purplish Flowers stand upon the Tops of the Stalks.

2. *Serpillum vulgare, majus, flore purpureo. C. B. Pin. 220. The greater common Mother of Thyme, with a purple Flower.*

This greater Mother of *Thyme* grows more upright than the common wild Kind, with two Leaves for the most part at a Joint like the other; but larger, and not of so deep a green Colour, but rather resembling *Marjoram-leaves*. The Flowers grow on the Tops of the Stalks, and are of a reddish purple Colour, like our Garden *Thyme*, but somewhat larger, as the whole Plant is, having but little Smell or Taste, but hot.

3. *Serpillum vulgare, minus. C. B. Pin. 220. The smaller, or common Mother of Thyme. Serpillum vulgare. J. B. 3. Part. 2. 269. Dod. Pempt. 277.*

The creeping Branches of this Mother of *Thyme*, gave Original both to its *Greck* and *Latin* Name, which Branches are hard, ligneous, square, reddish, somewhat hairy, which, after they touch the Ground, shoot down new Roots. The First and original Roots, are ligneous, pretty thick and numerous, brownish, and furnished with a great many Fibres. At the Joints of the Branches grow Leaves broader than those of common *Thyme*, roundish, nervous, and of a biting and aromatical Taste. The Flowers stand upon the Heads like those of *Thyme*, and are sometimes white, but generally, and for the most part purplish.

There are two Sorts of this Mother of *Thyme*. The former has a Flower smaller by one half, with a Chive cut in two,

and generally of a purplish Colour. The Leaves are like those of the following Sort, and smelling somewhat like *Baulm*. The latter has a Flower bigger by one half, five Chives in the Middle, and its Colour is somewhat fainter, and not so purplish. It does not differ from the former in its Leaves, but in the Smell, which seems to be sweeter. Both those Varieties are every where to be met with in this Country.

I have likewise another Sort, like the former both in Leaves and Stalks, but very hairy. *Ray.*

The Tops of Mother of *Thyme* very often degenerate into flocky and whitish Heads, which, says *F. Baubinus*, are in lieu of Flowers; nay, they are the Matrices of Insects. For the Tops of this Herb being pricked by certain Insects do thus degenerate, and become both their Abode and their Food. Concerning these spurious and excrementitious Excrescences of Fruits, as they call them, you may consult the most excellent *Marcel. Malpighi's* Second Part of the Anatomy of Plants.

This Plant abounds almost over the whole Earth in mountainous Places, and dry Fields, and in the Hillocks cast up by Ants.

4. *Serpillum vulgare majus, flore albo. C. B. Pin. 220. The greater common Mother of Thyme, with a white Flower. Serpillum album. Tabern. Icon, 361.*

5. *Serpillum vulgare, flore albo. H. Edinb. The common Mother of Thyme, with a white Flower.*

6. *Serpillum vulgare, minus folio ex albo & viridi vario. H. L. Ear. The smaller common Mother of Thyme, with a Leaf variegated of white and green. Serpillum vulgare, foliis variegatis. H. Edinb.*

7. *Serpillum vulgare, minus, capitulis lanuginosis. C. B. Pin. 220. The smaller common Mother of Thyme, with downy Heads.*

8. *Serpillum foliis Citri odore. C. B. Pin. 220. Mother of Thyme with Leaves smelling like Lemon, or Lemon Thyme. Serpillum Citri odore. J. B. 3. Part. 2. 270. Serpillum citratum. Tabern. Icon. 360. It is very like the common Sort, that is to be met with in all Parts of Europe; but it has thicker and blacker Leaves, which being bruised smell like *Lemon* or *Melissophyllon*, and*

and somewhat larger and more purplish Heads; but the Flowers are alike. It has likewise thicker square Branches, a Palm high, spreading upon the Ground, and shooting down Fibres at all the Joints. The Root is ligneous, divided into many Parts, fibrous, bearing numerous Stalks, and spreading in a Circle upon the Surface of the Ground.

It is found in mountainous Places, but rarely. In Hungary it grows up among the common Sorrel, and flowers with it in June.

The Musk Mother of Thyme of Parkinson, differs from this especially in Smell, nor is it mentioned, that I know of, by any other Botanist.

9. *Serpillum vulgare, citratum, minus.* H. R. Par. The smaller, common, Lemon Mother of Thyme.

10. *Serpillum angustifolium, glabrum.* C. B. Pin. 220. Parrow-leav'd, smooth Mother of Thyme. *Serpillum odore Juglandis.* J. B. 3. Part. 2. 270. *Serpillum angusto, glabroque folio.* Clus. Hist. 359. This is the *Serpillum Pannonicum Clusii* of Parkinson.

The Leaves of this Plant are somewhat narrower, and longer than in the common Mother of Thyme, green, smooth, and rarely spread along the Stalks. The Stalks are frequent, slender, long, spread upon the Ground, and then strengthening themselves by Fibres at the Knots, bearing oblong, soft, and as it were spiked Heads at Top, that are full of Flowers like those of the common Mother of Thyme. The Root is ligneous, hard, and divided into a great many Parts. The whole Plant either smells somewhat like Walnut-leaves, or is sometimes found without any manifest Smell at all; but whether this Variety is owing to the Change of Soil, or to the blowing of a different Air, I am not able to determine. Clus.

11. *Serpillum angustifolium, hirsutum.* C. B. Pin. 220. Parrow-leav'd, rough Mother of Thyme. *Serpillum angusto, lanuginosque folio.* J. B. 3. Part. 2. 270. *Serpillum Pannonicum tertium.* Clus. Hist. 360. This is the *Serpilli Pannonici Clusii varietas altera* of Parkinson; and the *Serpillum hirsutum* of Gerard. It creeps far and wide, and sometimes takes up a large Spot of Ground. For tho' it has a hard and ligneous Root, like the other Kinds, yet the small Stalks which it

spreads all around shoots down Fibres which in some Time become as hard and ligneous Roots as the original One; and then produce other Stalks spreading around, and cloathed with Leaves not less oblong than those of the Species immediately preceeding, but somewhat narrower, and covered with a soft and hoary Down. The long Heads on the Top of the Stalks do not differ in the long and smooth Leaf of the second Species, and are full of like Flowers. The Seeds in hairy and reddish Husks are small, and round, and of a brown Colour. The whole Plant, when rubb'd, or bruised, has somewhat of a Piny or Resinous Smell, and is hot to the Taste.

These two last described Species, grow up among the common Mother of Thyme, in Hungary, Austria, and Moravia, and flower at the same Time, viz. in the Month of June.

12. *Serpillum Thymi folio, humillimum.* The lowest Mother of Thyme, with a Thyme Leaf. *Marum repens.* Tabern. Icon. 342.

13. *Serpillum orientale, Origani folio, Rosam & Cionamomum olente.* Oriental Mother of Thyme, with a bastard Marjoram Leaf, smelling like Roses and Cinnamon.

14. *Serpillum orientale, folio Pulegii vulgaris.* Oriental Mother of Thyme with common Pennyroyal Leaf.

15. *Serpillum orientale, folio Pulegii cervini.* Oriental Mother of Thyme, with a Hart Pennyroyal Leaf.

Serpillum in Greek *Ἐρπύλλιον* from *ἔρπω* *repto* to creep, because it is a creeping Plant.

As Mother of Thyme agrees with Thyme in Make and Appearance, so it seems likewise to agree with it in Vertues; for it is accounted one of the hot and dry Herbs, which provoke Urine and Women's Courses. It is a Cephalick, Uterine, and Stomachick. Its chief Use is in moving Urine and the monthly Courses, in spitting of Blood and Cramps, &c. Applied outwardly, it cures Watchings, Head-akes, and Giddiness. It provokes the Courses, by bathing with it.

The common People, when they are troubled with the *Erysipelas*, drink the warm Decoction

coction of the Mother of *Thyme*, by which they fall into a Sweat, and often recover their Health by drinking of it. *S. Pauli.*

Paracelsus accounted the Water of Mother of *Thyme*, with the chymical Spirit of Wine, a sovereign Remedy in *Catarrhs*.

The Water against *Catarrhs* prescribed by *Hoffman*, is this. Take of the fresh Tops of wild Mother of *Thyme*, when it first begins to flower, what Quantity you please; pour on them as much *Marshmallows-wine*, as will cover them, and three Inches over, put them in the Sun in a large Glass stop'd close, for a Fortnight, then distil them, and pour that which you have distilled upon fresh Tops, and let them be again digested in the Sun as before, or distilled; and last of all put into each Pound of this Water, of the Shavings of *Sassafras* half an Ounce. When you have a Mind to use it, you must stop it in order to have clear the Quantity you want.

This is of excellent Use in a *Catarrh*, it prevents the *Apoplexy*, *Epilepsy* and *Palsy*, &c. The Dose is one Spoonful in the Evening, when the *Catarrh* begins to trouble you.

Mother of *Thyme*, says Mr. *Tournefort*, is somewhat bitter, biting, stiptick, and smelling, and reddens blue Paper pretty much. 'Tis probable that it abounds in Aromatick and Oily Volatile Salt; but that Salt still retains an acid Part of the *Sal Armoniack* of the Earth; whereas in artificial, volatile, aromatick, oily Salt, the acid Part of the *Sal Armoniack* was detained by the Salt of *Tartar*, or by the gravelly *Athes*: And thus is Mother of *Thyme* a Cephalick, Stomachick, and proper for the Vapours: It destroys that explosive Matter, which occasions convulsive Motions; it furnishes the Blood with spirituous Parts which it had lost; it recovers the Functions of the *prime vie*, and carries off Obstructions.

For the *Green-sickness*, infuse for the Space of one Night a Handful of Mother of *Thyme* in *Rose-wine*, strain the Infusion through a linnen Cloth, and give it the Patient to drink fasting, adding to each Draught four or five Drops of the essential Oil of *Sassafras*.

The Spirit of Mother of *Thyme*, and its distilled Water, are very proper for sleepy Distempers, and for the Vapours.

For the *Epilepsy* or *Falling-sickness*, the essential Oil of this Plant is very much commended, or the Water drawn from its Flowers, macerated in *Aqua vitæ*, and distilled afterwards.

For a Rheum or an inveterate Cough, throw two large Handfuls of Mother of *Thyme* into a Pottle of boiling Water; let it only give one Boil; take the Pot from off the Fire; cover it, and mix in the Infusion two Spoonfuls of white Honey; or pour a Quarter of a Pint of the same Infusion boiling into a like Quantity of Cow's-milk; and make the Patient drink it warm at nine a Clock at Night. A Dram of the Powder of Mother of *Thyme*, makes the Urine to pass well. The Conserve of the Leaves and Flowers of this Plant relieves such as are troubled with the *Falling-sickness*.

GENUS IX.

Satureia, Savory.

Savory differs from *Thyme*, in its Flowers, which grow scattering in the Wings of the Leaves, and not gathered into a Head: From *Calamint*, in the Flowers resting upon Foot-stalks not branched; and from *Thymbra*, in the Flowers not being ranged in Wherles.

I know but one Species of *Savory* which is,

Satureia Sativa. *J. B.* 3. 272. Summer of Garden-Savory. *Satureia Hortensis*, sive *Cunila sativa Plinii*. *C. B.* Pin. 218. *Satureia*. *Dod. Pempt.* 289. This is the *Satureia Hortensis* of *Parkinson*, and the *Satureia hortensis astra* of *Gerarde*.

It stands upon a single woody Root, that sends out large Fibres or Sprays, from which rise up Rods or Stalks a Foot or half a Yard high, taper, reddish, somewhat rough, parted by certain Joints, at each of which grow Leaves like the Leaves of common *Hyssop*, somewhat hairy, cut in with Holes that don't go quite thorough, with a piercing agreeable Smell, yet milder than that of the common *Thyme*, and of a biting Taste. The Stalks are branchy, having the Branches growing
in

in Couples over against one another, coming out of the Wings of the Leaves, and in length surpassing the Stalks themselves. Out of the Wings of the Leaves come forth several little Flowers together, upon short Foot-stalks, standing in Flower-cups divided into five sharp and narrow Segments, and they themselves parted into four Jaggs, of a white purplish Colour. The Seeds are small and brown, but larger than the Seeds of *Thyme*.

This is a Summer Plant, and cannot bear the Winter; so that it must be sown every Year.

I have seen it grow wild in great Plenty in the Fields about *Castleneuf*, not far from *Montpelier*. *Ray*.

Some say this Herb is called *Satureia* a *Satureia*, because it is made Use of in Sauces to season Meats: Others say, it derives its Name à *Saturis*, because it stimulates and provokes such as are backward and dull in Venery. It was called *Thymbra* by the *Greeks*, perhaps ἀνδρὶ θυμῷ, on account of its Fragrancy. C. B. And yet *Columella* distinguishes *Thymbra* from *Satureia*.

The Herb and the Flowers are in use: It is of a biting and hot Taste and Smell, from whence it is accounted hot and dry in the third Degree. It attenuates, opens and discusses. Its Use is in the Affections of the Stomach, such as Crudity and Squeamishness; &c. of the Breast, as the *Asthma*; of the Womb, as in obstructed Courses. It sharpens the Sight, and applied externally, it discusses Tumours, and eases the Pains of the Ears. Strowed upon a Bed, it is thought to kill Fleas. *Schrod*.

It is much used in the Kitchen amongst other Herbs. It is well to boil it with *French-beans*, and other windy Pulse. Shred small and fried with *Beans* and *Parssly*, it affords a very grateful Dish to the *Hollanders*. *Lob*. The poor People in *Germany* season their *Cabbage* with this Herb, which gives it both a very agreeable Taste and Smell.

GENUS X.

Thymbra.

Thymbra differs from *Savory*, *Thyme* and *Calamint* in its Flowers, being ranged in Wherles.

The Species of *Thymbra* are,

1. *Thymbra legitima*. *Clus. Hist.* 358. *Satureia Cretica*. C. B. Pin. 218. The true *Thymbra* of *Clusius*. This is the *Thymbra* five *Satureia Cretica legitima* of *Parkinson*; and the *Thymbra Græca* of *J. B.*

It grows up with many Branches from the very Root, like *Thyme*; which Branches are Square, covered over with a rough Down, and purplish, on which grow alternately over against one another little Branches, full of Leaves ranged in the same Order, very much like the Leaves of true *Thyme*, somewhat rough, sweet smelling, of a Smell betwixt *Cunila* and *Thyme*, and of a somewhat biting Taste. The Tops of the Branches are surrounded in Wherles by several Heads consisting of small Leaves, amongst which are the Flower-cups, in which stand pleasant small purplish Flowers, resembling the Flowers of *Thyme*, divided into four Jaggs, the lowermost of which is broad and stretched out, the uppermost is broad also, but shorter, the other two are lesser, with five whitish *Stamina* or Threads coming out of the Centre; whose Chives are of a dark, brown Colour, with a Pointal in the Middle split in two. This Plant sprang up from a very small, black Seed, not unlike the Seed of *Thyme*. The Root is hard and ligneous.

Clusius will have this true *Thymbra*, which the *Candians* to this Day call *Thymbri*, and *Thybri*. It sprang from a Seed sent to *Clusius* from *Candy*, by *Bellus*.

Prosper Alpinus contends, that this Plant is *Tragoriganum*, and not *Thymbra*.

2. *Thymbra Hispanica*, *Majoranæ folio*. Spanish *Thymbra*, with a *Maricam* Leaf, *Sampsuchus*, five *Marum Mastichen redolens*. C. B. Pin. 224. *Clinopodium quibusdam*, *Mastichina Gallorum*. *Dod. Pempr.* 271. *Herbmastick*, or *Mastick-thyme*, by some also called *Marum*.

It grows up into a ligneous Shrub, sometimes a Yard high, divided into many Branches, and lasts for many Years, unless a very sharp Winter destroys it. The Leaves are green, resembling those of the harder *Thyme*, but larger, and endued with a biting Taste. It bears downy Heads on the Tops of the little Shoots or Twigs, and a little lower like Wherles surrounding them, out of which do peep white little Flowers. The Smell of the whole Plant is agreeable, but a little too piercing.

But it is not necessary to insist long on the Description of this Plant, since it differs from all the wherled One's known to us, in its downy Heads.

According to the Testimony of *Clusius*, it flowers with *Thyme* and *Cassidony* in many Parts of *Spain*, and grows in dry and stoney Ground. It is carefully cultivated in Gardens, on account of its fragrant Smell, in *France*, *England*, *Germany*, &c.

Deodati esteems the Powder of the Bark of this Plant, to the Quantity of a Dram, drunk with *Austere-wine*, in the Morning, to be the best and most excellent Remedy in a desperate Flux of Women's Monthly Terms.

3. *Thymbra Hispanica*, folio subrotundo. Spanish *Thymbra* with a roundish Leaf.

4. *Thymbra Hispanica*, Coridis folio. Spanish *Thymbra*, with a fair Beath low Pine-Leaf. *Serpillum sylvestre* *Zygis Clusio*, *Thymo vulgari*, *rigidiori simile*. J. B. 3. Part. 2. 271. *Serpillum sylvestre*, *Zygis Dioscorid.* *Clus. Hist.* 358.

I observed the Wood-mother of *Thyme*, called *Zygis*, such as *Dioscorides* describes, if I mistake not, in old *Castile*, growing in the same Places with the harder or black *Thyme*, which it very much resembles both in Shape, Branches, Height and Root: But it has Leaves somewhat broader than those of *Thyme*, not smelling so much, but of a somewhat duller or heavier Smell, it being almost betwixt *Lavender-cotton* and *Cassidony*. It has likewise little Branches upon the Stalks, which are adorned with Flowers growing in Wherles, of a whitish green Colour; by which Disposition of the Flowers, and the Smell it can alone almost be distinguished from *Thyme*. It has not so much *Astringency* as

Thyme, because it has somewhat of *Astringency* mixed with it. *Clus.*

It flowers with the harder *Thyme*, and is perpetually green.

5. *Thymbra Sancti Juliani*, five *Satureia vera*. *Lob. Icon.* 425. *Satureia spicata*. C. B. Pin. 218. *Satureia foliis tenuibus*, five *tenuifolia S. Juliani quorundam*. J. B. 3. 273.

It grows in great Abundance in the rugged and uneven Places of the *Tyrrhenean-Sea*, at *St. Julian* in *Tuscany*, with small Twigs nine Inches high, full of Sprigs, and ligneous. It has many Leaves from the Bottom, like those of *Candy-thyme*, but narrower, longish, bearing a short Spike at Top, interwoven with many small Flowers. It has a biting Taste, and penetrating Smell; and the whole Plant is of a whitish worn-out purple Colour, smaller than the greater *Thyme*, and almost equal to the smaller.

I have observed it growing no less frequently on the Hills about *Messina* in *Sicily*, than on Mount *St. Julian*. It grows likewise upon the very Walls of *Florence*.

This Plant has the same Virtues and Qualities with the Genus immediately preceeding, if we may be allowed to form a Judgment from the Affinity of their Shape, Texture, Taste and Smell.

TABLE XCIV. Fig. 2.

GENUS XI.

Lavandula, Lavender.

Lavender is a Plant with a labiated Flower of one single Leaf, whose upper Lip A C is upright and roundish, and generally split in two; but the under Lip D E is cut into three Segments. Out of the Flower-cup F rises the Pointal G, fixed like a Nail into the hinder Part of the Flower B, and attended as it were by four Embryo's, which afterwards turn to so many Seeds I, shut up in the Husk H, which before was the Flower-cup. To these Marks must be added, That the Flowers of *Lavender* grow in the Manner of a Spike in Wherles upon the Tops of the Stalks and Branches.

The

The Species of Lavender are,

1. *Lavandula latifolia*, Indica, subcinerea, spica brevior. *H. R. Par.* Broad-leav'd, somewhat Ash-colour'd, Indian Lavender, with a short Spike.

This Species differs from the common Lavender in its shorter, broader, and less hoary Leaves; but agrees with it in Smell: I have not yet seen the Spike of its Flowers; for although it can well bear our Winters, yet it never yet produced a Spike in my little Garden: If my Plant, and that of *Paris* be the same, it bears but a short Spike. *Ray.*

2. *Lavandula latifolia*, Hispanica, tomentosa. Broad-leav'd, flocky, Spanish Lavender.

3. *Lavandula latifolia*. *C. B. Pin.* 216. *Pseudonardus*, quæ *Lavendula vulg.* *J. B. 3.* 281. *Lavandula*. *Dod. Pempt.* 273. The most common or broad-leav'd Lavender. This is the *Lavendula major five vulgaris* of *Parkinson*; and the *Lavandula flore cæruleo*, & *flore albo* of *Gerarde*.

It grows up a Cubit and a half, and two Cubits high, into a great and ligneous Shrub, thick-set with many Leaves. The undermost Leaves are indeed thick-set and disorderly, but the upper Ones, (as in this whole Genus) are plac'd in Couples alternately, over against one another, at Distances, longish, hoary, as broad as a Blade of Corn, and sometimes half an Inch broad, two or three Inches long, with a Rib running all along the Middle, of a very strong, but agreeable Smell, and of a bitter Taste. It bears a long Spike upon the Tops of the little Branches, consisting of whorled, blue, narrow and oblong Flower-cups, out of which peep small blue or violet coloured Flowers.

This has Leaves much longer and broader than the smaller Lavender, more hoary, but not quite so thick set on the Stalks and Branches. The little Branches, or rather Foot-stalks sustaining the Spikes, are twice as big, and twice as long in this as in the other; and the Spikes are also much longer and crooked; but the single Flowers (which is very strange) are smaller than the Flowers of that other: And, in fine, the Smell of the whole Plant is stronger.

4. *Lavandula latifolia*, flore albo. *C. B.* 216. *Lavandula flore albo Eyst.* Broad-leav'd Lavender, with a white Flower.

5. *Lavandula angustifolia*. *C. B. Pin.* 216. Narrow-leav'd Lavender. *Lavendula altern.* *Dod. Pempt.* 273.

6. *Lavendula angustifolia*, flore albo. *C. B. Pin.* 216. *Pseudonardus quæ Lavendula*, flore albo. *J. B. 3.* 287.

It is very like the common Sort in its whole Appearance and Make, though somewhat smaller and lower, and at the same Time growing with thick-set Stalks and Leaves. The Leaves are narrower and shorter, and not quite so white, nor have they so penetrating a Smell. The Spikes of the Flowers are shorter and more upright, but the single Flowers are larger.

It grows wild in Spain, and the South of France. It loves open and stony Places, where it continually bears a green Bush, or rather a white One. It sends forth Spikes loaden with Flowers in the Months of June and July.

7. *Lavendula folio dissecto*. *C. B. Pin.* 216. Cut-leav'd Lavender. *Lavendula multifido-folio*. *J. B. 3.* 287. *Clus. Hist.* 345. This is the *Stachas multifida* of *Gerarde*. Jagged Lavender.

It sometimes rises half a Yard high, with square and rough Branches, that are surrounded by Leaves cut into many Parts, and small Divisions, hoary and Ash-coloured, of a biting Taste, and a pleasant Smell. The Flowers are ranged like a Spike upon the Tops of square, hairy and downy Rods, of a blue Colour, and sweet smell'd. The Spike is somewhat distorted, and dispos'd in four Rows or Orders, one sometimes growing out of another. It has a hard, ligneous Root, furnished with many small Shoots, which *Clusius*, the Author of the Description, believes is full of Life.

It grows about Malaga, a City of Andalusia, where *Clusius* first found it, upon a Hill near to that City, bearing Flowers in the Month of February; and afterwards about Murcia, in the Month of March, and not elsewhere in any other Part.

8. *Lavendula folio longiori, tenuius & elegantius dissecto*. Lavender with a longer Leaf, cut finer, and more beautifully.

As to the Manner of growing, it agrees with the jagged Lavender; but the Leaves are larger, and cut into smaller Divisions like Southernwood; The Spikes likewise, which are

are small, grow upon long naked Rods, and are rarely seen single, but other smaller lateral Ones (three or four,) grow out of One, and afterwards more loaden with blue Flowers. It grew from Seeds received from the Canaries by Mr. George London.

9. *Lavendula foliis crenatis*. Lavender with notched Leaves. *Stachas folio serrato*. C. B. Pin. 216. *Stachas serrato & crispo folio*. J. B. 3. 279. *Stachas crispo folio*. Clus. Hist. 345. *Cassidony*, or *Sticadore*, with indented Leaves.

This kind of *Stachas*, observed by *Clusius*, is very rare, of the same Height with the *Stachas latifolia flore albo*, with ligneous, brittle, square Branches; and with oblong, narrow Leaves, very much notched and crisped, green on the upper Side, and white on the under Side, of a hot and bitter Taste. Its extreme Branches end in Rods nine Inches long, naked, square, hoary, which sustain a Spike longer and thinner than *Cassidony*, but very much like the Spike of smaller *Lavender*, and composed as it were of many membranaceous Coats or Plates, with certain little broadish Leaves of a bluish purple Colour, sticking out at Top, as in the rest of this Genus. Out of the Bosom of each Plate or Coat grow many purple Flowers, as in the common Sort: The Seed is also alike, as is the Root.

Clusius found it no where, but on the Top of *Calpe*, growing wild, and loaden with Flowers, in the Month of February.

10. *Lavandula foliis crenatis, latioribus, Americana, frutescens*. Plum. American, frutescent Lavender, with broad, notched Leaves.

This Plant is thought to be named *Lavender* by the Moderns, because it is much used *in balneo & lavacro*, in Bathings and Washings. The Seed and Leaves, says *Lobel*, are commended in Fomentations and Lotions, for Fits of the Mother.

Some suppose it to be the *Iphyium* of *Pliny*, which *Hesychius* writes they commonly called *Λαβάρδα*, which Word sounds pretty much like *Lavandula*.

Martinius derives it from the German Word *Leben*, which signifies *to live*, transitively taken; because it enlivenes, and is good against a *Lipathymy* or Swooning, according to *Martiolus*.

As *Lavender* agrees with *Cassidony* in Make, so it likewise seems to agree with it in Virtues. It consists of subtle and fine Parts, and is good for the Head and Nerves. Its principal Use is in *Catarrhs*, *Palsy*, *Cramp*, *Giddiness*, *Lethargy*, and trembling of the Joints; in provoking Urine and the Courses, in expelling a dead Child (for which Cause it is usual to prescribe it to Women in Labour) and in windy Gripings of the Guts. Externally in Lies for washing the Head and Joints, in *Masticatories*, for drying up, and repelling the *Catarrh* to the Palate, that so it may not fall down upon the Lungs.

The distilled Water, the Conserve of the Flowers, and the Oil of *Spike* are in Use.

It is usual to put the Spikes of Flowers with Linnen and Cloaths in Chests, to give them a pleasant Smell. *Schroder* says, that the Smell of them chases away Lice.

In hard Labour the Seed of *Lavender* is very serviceable. The following Remedies are accounted a most excellent Secret.

1. Take of the Seed of *Lavender* half a Dram, of the Seed of *Plantain*, *Endive*, of each two Scruples, of *Pepper* one Scruple, make them into a Powder, and take them with the following Waters. Take of the Water of *Honey-suckle*, and *Endive*, of each three Ounces. *Rondelet*. Or,

2. Take of the Seed of *Lavender* half a Dram, of prepared white *Amber*, and *Borax*, of each two Scruples, of the Oil of *Cinnamon* nine Drops, mix them, and divide them into three equal Parts, and give them in *Rhenish-wine*. *Backmeister*.

I have found this in lowly Boys, say *A. Hieron. Reusner*; I order'd their Heads to be anointed with Oil of *Spike*, and the Lice died immediately.

But any Oil whatsoever will kill Insects and Vermin, because it obstructs the Passages of Respiration, and thus intercepts and excludes the Air; thro' the Want of which the Vermin must needs die. A Decoction made with the Flowers of *Lavender*, *Horehound*, *Fennel*, and *Asparagus* Roots, and a little *Cinnamon*, is a very good Remedy in the *Falling-sickness*, and in the Giddiness or Swimming of the Head. Two Spoonfuls of the distilled Water of the Flowers, relieves those that have lost their Speech or Voice, and restores it them again. The lesser *Lavender*



Tab. 95.

Fig. 1.

Origanum . *Organy.*

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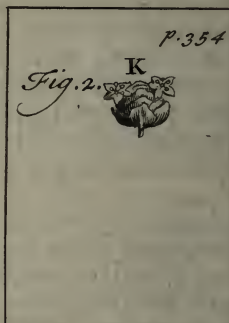
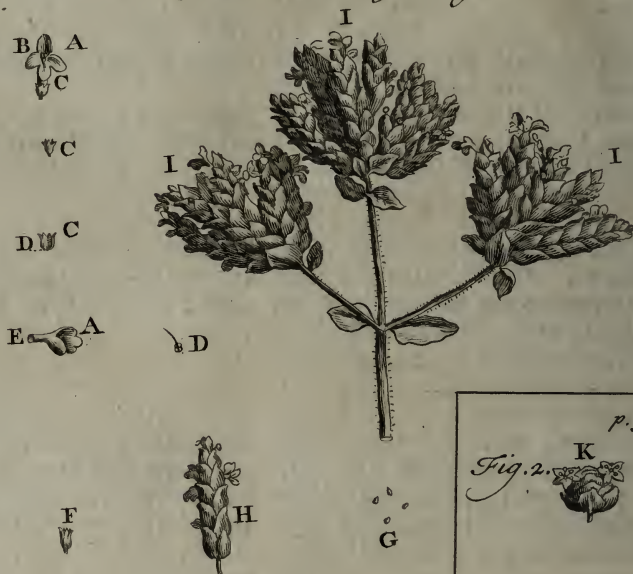
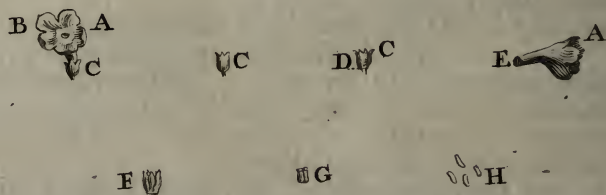


Fig. 3.

Verbena . *Vervain.*

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ender is much commended in all the Diseases of the Mother, such as the Strangling or Suffocation, Dislocation or Mislacing, &c. if the Patient be bathed therewith; and it likewise helps forward their Travel. The Oil chimically drawn from *Lavender*, which is usually called Oil of *Spike*, is of so fierce and piercing a Quality, that it must be used with great Caution and Reserve, and only some few Drops of it used with other Things either for natural or inward Ailments.

TABLE XCV. Fig. 1.

GENUS XII.

Organum, Orygany, or Bastard-marjoram.

Orygany is a Plant with a labiated Flower of one single Leaf, whose upper Lip A is upright, roundish, and split in two; but the under Lip B is cut into three Segments. Out of the Flower-cup C rises the Pointal D, fixed like a Nail into the hinder Part of the Flower E, and attended as it were by four Embryo's, which afterwards turn to so many roundish Seeds G, shut up in a Husk F, which before was the Flower-cup. To these Marks must be added, That the Flowers of *Organy*, grow in plated Spikes H, resembling the *Muscarium* I.

The Species of this Plant are,

1. *Organum sylvestre*, *Cunila bubula* Plinii. C. B. Pin. 223. *Wild Orygany*, or *Bastard Marjoram*. *Organum vulgare*, *spontanum*. J. B. 3. 236. *Organum sylvestre*. Dod. Pempt. 285.

The Roots of this common *Organy*, which are indeed small and ligneous, shoot down obliquely, with many small Fibres or Sprays, so that by the Help of these, the lower Part of the small Branches does again take Root. There rise from thence many Stalks one or two Cubits high, hard, square and rough, at whose Joints grow Leaves like those of *Field-calamin*, or the *Clinopodium vulgare*, hairy; and out of the Wings of those, smaller Leaves, resembling the Leaves of *Marjoram*. The Taste is biting and aromattick, and the Smell sweet. The Flowers, as in an Um-

brella, peep out amongst reddish Leaves, being of a flesh or white Colour, very small, turning up one small Leaf split in two, and hanging down the lowermost Leaf or Label, which is larger and cut in three, with *Stamina* or Threads in the Middle, of the same Colour with the Flower. The Seed is very small, and like *Marjoram* Seed.

The single plated Heads of this Plant are composed of the Conjunction of many small Leaves lying upon one another like Plates or Scales by reason of their Nearness; out of the Bosoms of each of which come forth the single Flowers. These small Leaves differ from the others that are on the Stalk, in their Shape and Smoothness; but they agree in their Position, unless that they are nearer to one another.

It grows commonly in Thickets and in Hedges.

2. *Organum sylvestre*, *foliis variegatis*. H. Edinb. *Wild Orygany*, with variegated Leaves.

3. *Organum sylvestre*, *album*. C. B. Pin. 223. *White wild Orygany*. *Organum album*. Tabern. Icon. 344.

4. *Organum sylvestre*, *humile*. C. B. Pin. 223. *Low wild Orygany*. *Organum repens*, *villosum*, *Aurelianensium*. H. R. Par.

From a ligneous, reddish, fibrous Root, commonly rises one round, red and rough Stalk, six or seven Inches high; which at Top is divided into a great many Branches, which sustain Flowers mixed with blue and purple, in the Shape of an Umbrella. The Leaves are small, oblong, hairy, compact, and placed without any Order, especially such as encompass the Top of the Stalk, and smell like common *Organy*.

This is found in great Abundance about Orleans.

5. *Organum Heracleoticum*, *Cunila galinacea* Plinii. C. B. Pin. 223. *Organum Heracleoticum Matthioli*, *aliis forte Grecicum*. J. B. 3. Part. 2. 237. *Organum Heracleoticum* 1 & 2. Tabern. Icon. 345. This is the *Majorana major Anglica* of Gerarde, and the *Majorana latifolia*, five *major Anglica* of Parkinson. *Pot Marjoram*.

Some reduce this Plant to the *Marjorams*, and others to the *Organy's*. It grows up with square, hairy, reddish, branched Stalks, half a Yard high, whose Leaves are larger than

than those of *Marjoram*, but almost equal to the Leaves of common *Organy*, being Ash-coloured, Hairy and Veiny. The extreme Branches end in scaley Spikes of two Rows, half an Inch, or a whole Inch long, from among whose imbricated Leaves, the little Flowers peep out. The Variety of this is *Majorana latifolia aurea*. Park. which appears especially in the Spring, when it is yet but young, with Leaves either wholly yellow or golden, or partly yellow, partly green, and that more or less, according as Nature sports; nor does it differ in any other Respect from the former. It is used for a Pot-herb by our People, and is therefore called *Pot-marjoram*.

6. *Origanum Heracleoticum*, *Cunila galinacea* Plinii, floribus candidis C. B. Pin. 223.

I saw and gathered this Plant, says *J. Bauhinus*, at least a Plant that goes by this Name, with a Stalk a Cubit high, square, hairy, and like the common *Organy*. The Leaves at the Joints are smaller, somewhat hairy, but of a sharper Taste and Smell. The Flowers are white or purplish, not Spiked, and spread after the Fashion of an Umbrella.

7. *Origanum Onites*. C. B. Pin. 223. *Origanum Creticum*. J. B. 3. Part. 2. 238. *Genuina Græcorum Hyssopus*. Lob. Icon. 494.

This Plant has a most grateful and lasting Smell; the Tops of which are brought to us, like the Spikes of *Marjoram*, some short, and some long, imbricated with a fourfold Series of channelled Plates or Scales, closely compacted together, of a most biting Taste, and of an aromatick, pleasant Smell. The Leaves are rarely brought hither, which I happen'd to see, says *Bauhinus*, are smaller than the common *Marjoram*, and not at all round.

There is great Confusion among the Botanists about the Species of *Organy*. *Caspar Bauhinus* distinguishes the *Origanum Syriacum sylvestre* Lob. from the *Origanum onites* of *Mathiolus*. But *John Bauhinus* makes them to be the same. *Prosper Alpinus* describes the *Hyssop* of the Greeks, (which is the same Plant with *Origanum onites*) thus;

This Plant rises a Cubit high, is very like the *Origanum onites*, both in its Leaves and Umbrella's, in the manner of *Corymbi* or

broad round Tufts; which is distinguished from *Organy* in its sweeter and more piercing Smell. It grows with many Shoots from one Root, or coming out from one Stalk, not wholly upright, but standing obliquely, with the Leaves of the *Origanum Heracleoticum*, but whiter and sweeter smell'd: And upon the Tops of the Stalks are seen Umbrella's, like broad round Tufts resembling a Wheel, with small white Flowers, such as appear in the *Origanum onites*, which are succeeded by a small blackish Seed. The whole Plant has a most excellent Smell, and is very acceptable to the Taste with a strong Acrimony, and is all over white with a fine Down. As soon as the Winter comes on, it seems wholly to change its Countenance: For from one Root rise up several small Stalks, standing obliquely, with *Penny-royal* Leaves, cloathing the Stalk from the Top to the Bottom, with round, whitish and somewhat downy Stalks, of a fainter Smell.

8. *Origanum onites*, floribus albicantibus. C. B. Pin. 223. *Origanum onites dictum*. Eyst.

9. *Origanum folio subrotundo*. C. B. Pin. 223. *Organy* with a roundish Leaf. *Origanum Monspelienſe, pulchrum*. Cam. Epit. 468. J. B. 3. Part. 2. 238.

It is very like the *Onites* drawn by *Mathiolus*, but not the same. It do's not differ much from the common *Organy*, unless that it has many beautiful and oblong purplish Spikes: The Stalk is likewise entirely Purple. It produces a dark, red Seed, and small like the other *Organy's*.

It grows in France near *Montpelier*. It rises near the Bridge of *Castleneuve*, and elsewhere on the Borders of manured Ground and Vineyards.

10. *Origanum Pulegii folio*. *Organy* with a *Penny-royal* Leaf.

11. *Origanum humilius, latifolium, glabrum*. Low, broad-leav'd, smooth *Organy*.

12. *Origanum Canadense, flore albo, umbellato*. Canada *Organy*, with a white Umbrella-flower.

13. *Origanum Creticum, latifolium, tomentosum, seu dictamnus Creticus*. Broad-leav'd, flocky, Candy *Organy*, or *Dictamnus* of Candy. *Dictamnus Creticus*. C. B. Pin.

Pin. 222. *Distamnus Creticus seu vera.* J. B. 3. Part. 2. 253. *Distamnium verum.* Dod. Pempt. 281.

It has hairy Stalks, and somewhat purplish, at whose Joints rise Branches opposite to one another, and others upon them in the same Order. The Flowers are almost quite round, sometimes oblong, an Inch long, cover'd quite over with a whitish Substance or Flok, of a piercing Smell, and a biting Taste. The Heads resting upon the Tops of the small Branches, resemble a longish Spike, from among Leaves larger than the Leaves of *Marjoram*, purplish without, lying close upon one another, like Plates or Scales, out of whose Bosom come forth purplish Flowers in the Form of an open Pipe, with little *Stamina* or Threads sticking out of the Opening, and sitting in a channelled Flower-cup.

The Plant is very tender, impatient of Cold, and hardly bearing our Winters.

7. *Baubinus* observes, That unless the Plants be set in the Ground, they will hardly be able to hold out the Winter, even tho' they be never so well lookt after. The best way therefore is to propagate them by Slips, and then these will produce Flowers the next Year.

14. *Origanum Montis Sipyli.* H. L. Bar. *Organy of Mount Sipylus.*

15. *Origanum Canadense, capitulis tenuioribus.* Canada *Organy*, with small Heads.

16. *Origanum lignosum, Syracusanum, Umbella amplissima.* Bocc. Mus. Tab. 38. *Ligneous Organy, of Syracuse, with a very large Umbrella.* *Origanum lignosum, Syracusanum, perenne, Umbella amplissima, brevis, lato & nervoso folio nigricante.* Bocc. Mus. 43.

17. *Origanum Creticum, flore rubello.* F. B. 3. Part. 2. 238. *Candy Organy, with a red flower.*

18. *Origanum Dictamni Cretici facie, folio crasso, nunc villoso, nunc glabro.* *Organy resembling Candy Dictamn, with a Leaf sometimes hairy, sometimes smooth.*

This Plant is called *Origanum* from ὄρος a Hill, and γάλη Joy; as if it was said to be a Plant delighting in Hills or Mountains;

and this is the Etymology given by *Theophrastus* and *Dioscorides*.

The first Species, which is the common wild *Organy*, has these Virtues: It opens, cleanses, and binds; (but how these agree, I cannot well perceive) Its chief Use is in the Obstruction of the Lungs, Liver, and Womb; and hence it is proper in a Cough, *Asthma*, or *Faundice*. It increases the Milk, and taken before Bathing, purges off ichorous Excrements by Sweat; but it is more used externally, in Baths for the Womb, Head, and for the whole Body against a Scab, or Itch. In short, all the Plants that come under this Designation, have very near the same Virtues with *Marjoram*, of which you shall have some Account under the next following Genus.

The wild *Organy*, says Mr. *Tournefort*, is biting, aromack, cleansing, and reddens blue Paper but very little; which gives Cause to conclude, that it is full of a volatile, aromack and oily Salt, which is not perfectly void of Acid; whereas in artificial, volatile, oily Salt, the Acid of the *Sal Armoniac* was detained by Salt of Tartar: Besides, *Organy* contains Abundance of earthy Parts. This Plant is diuretick, diaphoretick, proper to make one spir, and to carry off gross Excrements. It must be used like *Thea* in an *Asthma*; in a violent Cough, in Indigestions, and in the Pleurisy. It is used for washing one's Feet, and in Half-baths, for the Vapours, Green-sickness, and the Palsy. For the Rheum, and for the Rheumatism in the Neck, which is commonly called a Crick in the Neck, you must dry the Herb by the Fire, and wrap it warm in a Linnen Cloth, with which you must cover your Head well.

This wild Kind is said to heal all Bitings of venomous Creatures, by taking the Heads and Flowers in Wine. And to this purpose *Antigonus*, an antient Greek Author, in his Rhapsody of memorable Events, relates a pretty Story of a Tortois eating *Origanum*, when he goes to fight with the Serpent; which a certain Serpent heedfully observing, he cut up the *Origanum* where it grew, and removed it out of the way; of which the Tortois being, contrary to Expectation, deprived, perished by the Poison of the Serpent, against which he had not his ordinary Antidote. But

Plutarch, in his natural Questions, relates it somewhat differently; for, he says, that the *Tortois* having eaten the Flesh of a *Serpent*, was preserved from the Danger and Infection by eating of *Origanum*. The same *Antigonius* likewise gives us another Story celebrating the Virtues of *Origanum*; for he tells us, the *Ring-doves* cure their Wounds, by putting *Origanum* into them. Thus much at least we may gather from these different and varying Stories, that the Antients had a high Opinion of this Plant, and particularly of its Virtue in expelling and destroying of Poison.

Galen says, that all the Species of it are of a cutting and rarifying Quality, and that in the third Degree; and that the *Heracleoticum* is of more Efficacy than the *Onitis*, and the wild Sort stronger than either. The Decoction of *Origanum* with a few Cloves and Sugar, exceedingly relieves those who are troubled with the *Hickough*. The Powder of this Plant mixed with a little *Salt-peter* and *Honey*, and made in the manner of a thin Electuary, will make the Teeth both whiter and firmer, by rubbing them frequently therewith.

The 13th Species, which is the *Candy Dittany*, performs all the same Things that *Garden Penny-royal* do's, but much more effectually: For it not only expells the dead *Fœtus* when drunk, but likewise when it is laid near the Mother, or burnt, so that she may receive the Smoke into her Nose. They tell us also, that the Goats in the Island of *Crete*, make the Arrows with which they are stuck, drop away, by eating of this Plant. Besides, the Juice of it anointed upon the Body, or rubbed with Meal, has the Virtue of purging. The Herb it self laid to the Soles of the Feet, or to any other Part of the Body, loosens and draws out the Heads of Arrows, or any other sharp Instrument sticking in it. It is effectual in the Pain of the *Spleen*, by diminishing and removing it. The Root chewed warms the Mouth, and hastens the Birth. The Juice drunk with Wine, is an excellent Remedy against the Bites of venomous Creatures. And so great is the Power of this Herb, that the very Smell of it drives away raging mad and poisonous Beasts, and the Touch of it kills them. [This is too much

to be true, and not to be too easily relied on, because of its Improbability.] But the Juice of it squeezed into Wounds received by Iron, or any other sharp Instrument, or into Wounds made by venomous Creatures, is a present Remedy, especially if it be likewise drunk at the same Time. All this is from *Dioscorides*.

Hippocrates, according to the Relation of *Galen*, reckons this Plant amongst the best he knows, for bringing away the *After-birth*; and if it be drunk with Wine, for expelling a *Mole*. *Pliny* affirms, that it makes the monthly Courses flow, and brings away a dead or inverted *Fœtus*. It not only shows its Virtue by drinking it, but likewise by anointing with it, or smelling to the Smoak of it. Besides, it is so Efficacious, that it is not counted safe for Women with Child to have it with them in the same Room. This seems pretty improbable.

Thadæus Dinnus, as *J. Bauhinus* affirms, gave to a Woman sitting in a Bath, whom every Body believed must certainly dye of a dead *Fœtus*, half a Scruple of the Leaves of *Candy-dittany* in Powder, in Spring-water, after other Medicines had fail'd; which being done, he hop'd, he said, that all Things would succeed to his Wish, for every Thing seem'd to tend down to the lower Belly. That Night she was pretty easy, but could not sleep. Before the Dawn of the Morning she was happily delivered of the dead *Fœtus*. And indeed it is very easy to take this Remedy; whereas others that expel the Birth, are either too bitter, or stinking, or too sharp, or hurtful to the Stomach, and so may do harm.

TABLE XCV. Fig. 2.

GENUS XIII.

Majorana, Marjoram.

Marjoram differs from *Origanum* in rounder, thicker-set, and shorter Heads K, composed of a fourfold Order of Leaves placed like Scales or Plates.

The Species of *Marjoram* are,

1. *Majorana vulgaris*. C. B. Pin. 244. Sweet

Sweet Marjoram. *Majorana majori folio ex semine nata.* J. B. 3. Part. 2. 241. *Majorana, five Marum.* Dod. Pempt. 270.

This is an Under-shrub a Palm, or nine Inches high, hollow, with a great many thicker Wings, which are ligneous, commonly square, somewhat hairy, and a little reddish. The Leaves are placed opposite to one another, shaped like common *Origanum*, but much smaller, covered over with a hoary Down, of a fragrant Smell, and of a sharp and bitterish Taste, which however is Aromatick and Agreeable. About the Tops of the Stalk and Branches, at the Wings of the Leaves, and therefore at the very Extremities of the Branches, rise Spikes, whose hairy Leaves compacted like Scales over one another, thrust forth out of their Bosom small, whitish, chapped Flowers, with a Lip hanging down cut in four, near which stands an upright Leaf, producing a white Pointal cut in two out of the Middle of the Opening. The Seed is like that of common *Origanum*, small, round and reddish.

2. *Majorana latifolia aurea.* Park. Theat. 12. **Yellow Marjoram.**

This *Marjoram* is of the same Sort with the *Majorana latifolia five major Anglica*; differing only in the Colour of the Leaves, which in some are wholly yellow, in some, but a little green, or mixed of yellow and green, more or less, as Nature pleases to Sport, the Smell being but inconsiderable like the other. We have also another Sort mixed of White and Green.

3. *Majorana rotundifolia, villosa, Satureiæ odore.* Round-leav'd, hairy Marjoram, smelling like Savoy. An *Marum Syriacum, gracilioribus sarmentis, minoribus capitulis & foliis.* Adv. 213.

4. *Majorana rotundifolia, scutellata, exotica.* H. R. Par. Round-leav'd erotic Marjoram, with a Leaf shaped like a Saucer. *Majorana rotundifolia, cochleata, radice perenni.* Jong. Hort. *Origano cognata Zatarendi.* C. B. Pin. 223.

5. *Majorana tenuifolia.* C. B. Pin. 224. **Thin-leav'd Marjoram.** *Majorana tenuior & lignosior.* J. B. 3. Part. 2. 241.

This *Marjoram* is called by some, *Nobilis & Gentilis*, and do's not seem to differ in Species from the common or greater *Marjoram*; since C. *Baubinus* affirms, that it dege-

nerates with us into common *Marjoram*; and F. *Baubinus* makes no other Difference betwixt this and that Species, than That that grows from Seed, whereas this is propagated by Slips, whereby it becomes stronger and fuller of Shoots, and its Leaves, (if he is not mistaken) are render'd smaller and whiter. *Parkinson* distinguishes between this and the sweet-smell'd *Perennial Marjoram*; which he affirms some take to be the common *Summer-marjoram*, become stronger by Transplantation, and more patient of the Winter Colds. F. *Baubinus* has another Species of *Marjoram*, which he calls *Majorana Cretica odoratissima, quibusdam Marum dicta*, resembling the common sweet *Marjoram*, unless that the Leaves are smaller, whiter, and of a more lively and lasting Taste and Smell, which do's not decay till after a long Time, and are ranged in no Order along slender Branches. Its Heads are more hairy, and whiter than those of the common *Marjoram*. This is perhaps the *Majorana seu Amavacus alia tenuior, gentilis & minuta plebecula* of *Lobel*, and in his *Icon. Plant.* *Majorana tenuifolia delicatior.* Tho' to confess the Truth, neither do's this seem to differ in Species from the common *Marjoram*.

6. *Majorana Cretica, Origani folio, villosa, Satureiæ odore, corymbis majoribus, albis.* Hairy Candy Marjoram, with an Organy Leaf, a Savoy Smell, and large white Corymbi, and round tufted Heads. *Origanum Smyrneum Wheeler.* An *Origanum lignosum, Syracusanum, umbella amplissima.* Bocc. Mus. Tab. 38?

This is a perennial Plant, sending up many ligneous, long Roots, which produce Branches at Distances. The Leaves are smaller than those of *Candy-marjoram*, less hoary, and not quite so round, but rather oblong, pointed, nervous, and somewhat downy. Plated or scaled Heads stand upon the Tops of the Stalks and Branches. It breathes a sweet and fragrant Smell.

It grows in great Abundance at *Smyrna*, upon the Hill on which the Castle stands.

7. *Eadem spicis corymborum unciam longis.* The same with the Spikes of its tufted Heads an Inch long.

8. *Majorana Cretica rotundifolia, Lavan-dulæ odore, capitulis minoribus, incanis, flore purpurascente.* Round-leav'd Candy

Marjoram, smelling like Lavender, with smaller, hoary Heads, and a purplish Flower. *Majorana nostra respondens, floribus rubentibus.* Bellon. Obs. Lib. 1. Cap. 17. *Eadem flore purpureo violaceo.* The same with a Purple violet-colour'd Flower.

9. *Majorana, Cretica, Origanii folio, villosa, Saureia odor, flore purpurascens.* Hairy Candy Marjoram, with an Origan Leaf, a Savory Smell, and a purplish Flower. *Marum Creticum.* P. Alp. Ezor. 288. *An Marum Syriacum gracilioribus sarmentis, minoribus capitulis & foliis.* Adv. 213?

This Plant is full of Sprigs, and rises a Palm high, with small slender whitish Leaves, of a very piercing Taste, and a very penetrating quick Smell; and produces, from a little slender ligneous Root, several upright, round, slender, ligneous Sprigs; which, from the Root up to the very Top, bear Branches in Pairs, at Distances opposite to one another, and are thick set with Leaves, growing in Couples opposite to one another; On the Top stand small purple Flowers, in the fashion of the *Origanum Heracleoticum*, and of a very quick and lively Smell.

The Authors of Common-place Books describe it thus;

It has a most agreeable and lively Smell: In its whole Make and Countenance it resembles *Marjoram* or *Origanum*, but has slenderer, not shorter, Sprigs, a Foot, or a Foot and a half high, more beautiful by their round rusted *Corymbi*, and comely Heads, which retain their Fragrancy after they are come ten Years from *Aleppo* to *Venice*.

We have a Species of *Marjoram*, every where cultivated in Gardens, whose scaled, square, oblong Heads answer very well to the Figure of this Plant; but its Flowers are white, not purple. The Root endures many Years, but the Herb it self perishes every Year. It rises with several small Sprigs about half a Foot high; the Leaves resemble those of *Sweet Marjoram*, both in Shape and Size; but are not so downy and soft, nor of quite so fragrant a Smell, tho' agreeable.

Some will have it to be call'd *Majorana*, *quod majori cura diligentiaque, quam cetera herbae, servatur, colaturque*; because it is sown and cultivated with greater care and diligence than other Herbs. It is look'd upon to be the same Plant which the Greeks called *Sam-*

psuchus, tho' it is more probable, that *Amaracus* and *Sampsuchus* were the same Plant, which *Dioscorides*, *Pliny*, *Matthiolus* and others affirm, and *Galen*, *Aetius*, *Paulus*, &c. deny.

This Plant being of subtle and small Parts, of an aromatick, lively quick Taste and Smell, warms, dries, attenuates and digests: I relieves the cold Distempers of the Head and Brain, taken any way. The Powder of the dry Herb put up the Nose makes one Sneeze, brings away pituitous Matter, and strengthens the Brain; and the same is done by the Juice of the Leaves put up the Nose. It is good in all the Ailments of the Breast, and comforts the Stomach, and relieves those whose Liver or Spleen is out of Order, taken in any manner whatsoever. It helps the cold Diseases of the Womb, as well as expells the Wind from thence. Taken in Drink it carries off the Urine and other watery Humours. It eases the Tooth-ach, if it be chewed or laid to the Teeth. It is an Ingredient in *Antidotes*.

The Oil of this Plant strengthens and warms the Nerves.

Nicholas Chesneau, Dr. of Physick at *Marseilles*, commends the following *Errhinum* or *Snuff*, which he tried often in a Head-ach.

Take of the Root of white *Hellebore*, half a Dram, of the Leaves of *Sampsuchus* or *Marjoram* two Pugils, boil them in six Ounces of Water, till a third Part is evaporated; use it with your Mouth full of Water, by drawing up into your Nose the Decoction a little warm, laid upon the Palm of your Hand, in a violent Head-ach, for it exasperates and encreases a small Pain.

Marjoram-Water is good in a *Catarrh* (if it be taken by way of *Errhinum*, with the Mouth first full of fair Water, or Wine) laid upon the Hollow of the Hand, stopping one Nostril, and drawing it up with the other, as high as the *Os ethmoides*, or Root of the Nose. For if you do otherwise, this *Errhinum* will not reach the said Place, but will rest upon the Jaws, or in the Nostrils. With this my Father cured Prince *Wallestein* of a *Rheum* or *Distillation* in his Nose and Eyes, and received great Honour by it. *Simon Pauli*.

The Decoction of this Plant made with some *Pellitory of Spain*, and long *Pepper*, or with a little *Acorus* or *Origanum*, recovers the

Loss of Speech by the Resolution of the Tongue.

Though the 9th Species, which is *Marum Syriacum*, is very much of the Nature of *Marjoram*, and has the same Virtues with it; yet these Plants are not to be confounded, much less are foreign Plants to be made use of instead of this: However the *Marum* which is brought to these Parts, and agrees in Marks with that described by *Dioscorides* and *Cornus*, ought to be retain'd. Of this are prepared the *Pilule Marocostina Mindere-ri*, which are esteem'd among the excellent *Cephalicks*. And at the same time, relieve and comfort the Stomach, Liver, Spleen and Breast, &c.

Our *Marjoram*, says *Parkinson*, is much used in all odoriferous Waters, Powders, &c. that are for Ornament and Delight. The great or Pot *Marjoram*, because it is more mild, and less bitter than the former, is less used in Physick; but more in Meats and Broths, to give them a Relish, and help to warm a cold Stomach, and to expell Wind. The *Wild Marjoram* is hotter than it, and therefore more effectual to heat, warm, comfort and strengthen both outwardly and inwardly, in all Things whereunto it is applied. *Herb Mastick*, continues the same Author, is more temperate in Heat than *Marjoram*, and is us'd by our Apothecaries instead of the true *Marum*, (which may well be admitted until a truer be known) in the Composition of the *Trochisci Hedycroi*, which *Andromachus* thought fit to make a principal Part of his *Theriac*; as accounting it effectual against all Poisons, especially of Vipers and other Serpents. Our daintiest Women do put it to still among their other sweet Herbs, to make sweet washing Water. *Parkinson*.

TABLE CXV. Fig. 3.

GENUS XIV.

Verbena Verbain.

Vervain is a Plant with a labiated Flower, of one single Leaf, whose upper Lip A, is upright, and commonly split in two; but the under Lip B, is cut in three Parts: But they are both so cut, that at first sight the

Flower appears to be cut into five Parts. Out of the Flower-cup, rises the Pointal D, fixed like a Nail into the hinder Part of the Flower E, and attended as it were with four *Embryo's*, which afterwards turn to so many Seeds G, which are thin and oblong H, compleatly filling the whole Husk F, which before was the Flower-cup. To these Marks must be added, That the Flowers of *Vervain* do generally grow in Spikes, but not in Wherles, and that they are sometimes ranged into a Head.

The Species of *Vervain* are,

1. *Verbena communis cœruleo flore C. B. Pin. 269. Common Verbain with a blue flower. Verbena vulgaris. J. B. 3. 443. Verbenaca recta Dod. Pempt. 150.* This is the *Verbena mas seu recta & vulgaris* of *Parkinson*. Common *Vervain*.

From a fibrous and bitterish Root, smaller than one's little Finger, grow up many Stalks above half a Yard high, square, solid, somewhat rough, with a short Down, and these purplish and branched.

The Leaves stand upon the Stalks over against one another in Couples at distances, and hairy on both Sides, with a short and hardly perceptible Down, being wrinkled, deeply jagged, cut somewhat like the Leaves of Oak, the two lower Cuts being the deeper, and are of a deeper green Colour above than underneath. The Flowers, which are ranged in long Spikes, of a faint blue Colour [of a pale purple Colour *J. B.*] small, divided into five Segments, as in the wherled Plants, come out of the Wings of the Leaves, and Tops of the Stalks, standing in a Flower-cup sitting in the Wing of a very small Leaf. To each Flower succeed four longish Seeds, joined together in the Flower-cup, as in the wherled Plants, to which this Plant is certainly to be reduced. The two uppermost Segments of each little Flower appear like a Hood or Crest

It grows in Court-yards, and Cross-ways, and flowers in Summer.

2. *Verbena communis, floribus albidis C. B. Pin. 269. Common Verbain, with White flowers.*

3. *Verbena Lusitanica, latifolia, procerior. Broad-leav'd, taller Portuguese Verbain.*

4. *Verbena tenuifolia. C. B. Pin. 269. Thin-leav'd Verbain. Verbenaca supina. J. B. 3. 444. Verbenaca supina Dod. Pempt. 250. It*

It has four or five corner'd or square Stalks, such as the common *Vervain* has, but slenderer, bending and leaning upon the Earth, knotty or jointed. At each Joint there grow, under the small Branches, Leaves, not differing from the Leaves of the common Sort in Colour, but much more jagged, and cut into many Parts; the Flowers are ranged on the Tops of the Branches, in the Form of a Spike, as in the common Sort, and likewise of a purplish blue Colour, but smaller. The Seed is of the same Size, nor is the Root different.

It is common in the Fields about *Salamanca*, and in some other Places in *Castile*. It flower'd there in the Months of *July* and *August*. It is an annual Plant, and uses to perish even in its native Soil, after it has shed the Seed.

5. *Verbena urticæ-folia Canadensis*. *H. R. Par.* *Pettle-leav'd Wervain of Canada.* *Verbena con foglio d' Ortica di Canada.* *Zan.* 203. *Verbena Urticæ folio.* *Mor. H. R. Blef.*

6. *Verbena urticæ-folia, Canadensis, foliis incisif, flore majore.* *H. R. Par.* *Pettle-leav'd Wervain of Canada, with cut Leaves, and a larger Flower.* The Leaves of this Species are graven on the same Table. *Zan.*

7. *Verbena Americana, spica multiplici, foliis Urticæ angustissimis, floribus cæruleis.* *Prodr. Par. Bat.* *American Wervain, with a manifold Spike, very narrow Pettle-Leaves, and blue Flowers.*

From a durable Root made up of many Fibres, it sends forth square, striped, jointed Rods, six or seven Foot high. The Joints are cloathed with conjunct Leaves, in Make and Texture like the Leaves of Nettles, but narrower, tho' they sometimes exceed a Palm in breadth, and a Span in length, sometimes whole and entire, at other times divided at the Bottom into one or two Jaggs. Out of the Bosom of these, on both Sides rise little Branches, whose Tops terminate in many Spikes of Flowers, or florid Manes, which are square, closely join'd to one another, as long as one's Finger, and very pleasant to look at. Now the Flowers are of a bluish purple Colour, very small, fistulous at bottom, and at top divided into five equal Segments. To these succeed four oblong dark

brown Seeds, in Flower-cups cut into five Segments.

It is likewise found with a purple Flower. It is much cultivated in our Gardens, by the Name of *Verbena Urticæ folio*.

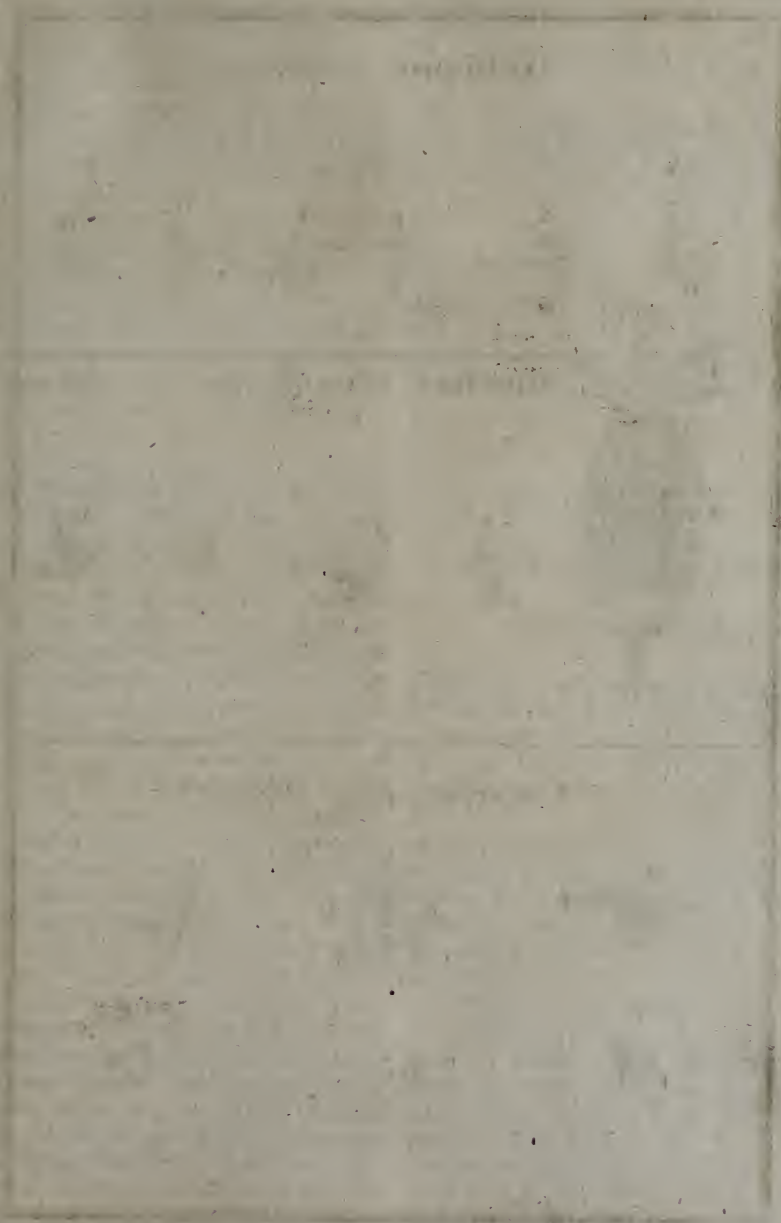
8. *Verbena Americana, spica multiplici, foliis Urticæ angustissimis, floribus purpureis.* *Prod. Par. Bat.* *American Wervain, with a manifold Spike, very narrow Pettle-Leaves, and purple Flowers.*

Verbena, Ἰεβοβόρν by the Grammarians, *quasi Herbenæ*, or *Herba bona* a good Plant, because it signifies any Herb made use of in sacred Rites and Ceremonies. *Pliny* acquaints us, that it is a sacred Herb; That the ancient *Romans* purged their Houses with it, lustrated their Families, swept *Jupiter's* Table with it that was appointed for Sacrifices and Banquets; and that the Heralds were crown'd with it when they went upon any Embassy or Negotiation.

It was call'd *Hierobotane*, or *Herba sacra*, says *Dioscorides*, because being hung up or tied to any Thing in Lustrations, it had a lucky Effect. And this Plant was so much in use amongst the Heathens, that they made use of its Name to signify any Plant that was useful in their Religion and Worship; as all Criticks and Grammarians unanimously agree with *Servius*.

It was likewise called *Sagminalis Herba*, that is Grass or Herb from the *Castle* or *Capitol*, pluckt by the Consul with its Earth, which was made use of in the Rites both of Peace and War, and the *Sagmina* or *Sacred Turfs* were employed as Remedies in all publick Misfortunes and Calamities.

The Antients attributed many Virtues to *Vervain*, especially the first Species, which in Sum are these. It is a Cephalick and Vulnerary Plant. Its principal Use is in the Pain and other Affections of the Head from cold Humours; in the Distempers of the Eyes and Breast, as an inveterate Cough. In the Obstruction of the Liver and Spleen, the Jaundice, Gripings of the Guts, Bloody-flux; it notably waits and expells the Stone, restrains Lust, chafes away the *Tertian* Ague, eases the Gout, cures Wounds, and facilitates the Birth. It is good also applied externally, in the Head-ach, Tooth-ach, Distraction and Melancholy; in the Dimness, Weakness

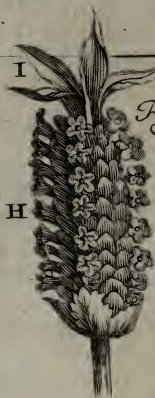
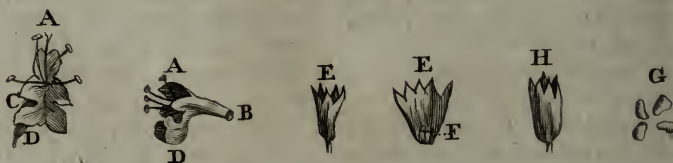


Tab. 96.

Fig. 1.

Hyssopus. *Hyssop.*

Fig. 359.



Stæchas. *Cassidony.*

Fig. 361.

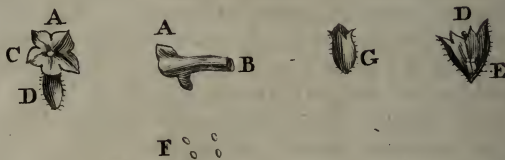
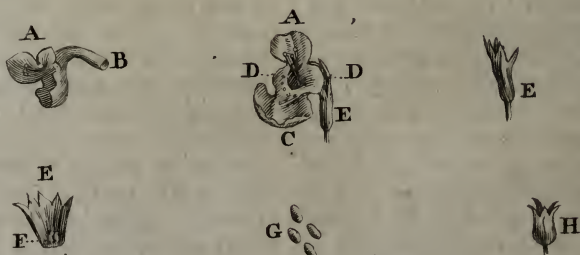


Fig. 3.

Cataria. *Cat Mint.*

Fig. 363.



ness and Redness of the Eyes; in the Squinisy, Hoariness (applied round the Neck as a *Cataplasma*;) in the swelling of the Glands about the Throat (by way of *Gargarism*;) in the Pain of the Spleen, (with Hogs-Lard;) and in easing the Pain of the Gout, and cleansing of putrid Sores; in the falling down of the *Anus*, Hemorrhoids or Piles, &c.

Since it possesses so many Virtues and noble Qualities, what Wonder is it that it was in so much Honour of old, as to deserve the Appellation of *Herba Sacra*?

For the Swelling of the Spleen.

Take bruised *Vervain* with the white of an Egg, and Barley-Meal, or Wheat-Flower; make them into a Cataplasma, put it into a fine Linnen Cloth, and lay it upon the Swelling, it attracts as it were the thinnest Part of the Blood: Some add *Betony*. This is a Remedy among the common People. *Chesneau*.

Vervain laid under the Head or Pillow, or made into a Plaister with very soure Ferment and Oil of Roses, eases the Pain of the Head occasioned by drinking. *D. Soame*.

The Decoction of the Leaves drunk, is held to be very good against the Bittings of Serpents and venomous Beasts, for the Plague or Pestilence, and against both Tertian and Quartan Agues. It kills and expells Worms in the Belly, and causes a good Colour in the Face and Body; and drunk with some *Peony* Seeds it is extremely good against a Dropsy, and no less prevalent in the Defects of the Reins and Bladder, by cleansing them from that viscous and slimy Humour, which engenders the Stone and Gravel; used with old Hogs-Grease, it allays the Swellings and Pains of the Privy Parts in Man or Woman.

The Leaves bruised, or the Juice of them mixed with Vinegar, does wonderfully cleanse the Skin, and takes away all Morpew, Freckles, Pustulaes, or other such like Inflammations and Deformities of the Skin in any Part of the Body. The distilled Water of this Herb, when it is at its full Growth and Vigour, dropped into the Eyes, cleanses them from Films, Clouds or Mists that darken the Sight, and wonderfully comforts the Optick Nerves. This same Water is very effectual in all the Diseases aforesaid, either inward or outward, whether they be old corroding Sores, or Green Wounds.

This Plant, by a Chymical *Analysis*, yields several acid Liquors, Abundance of Oil, pretty much volatile concrete Salt, and Earth: From whence 'tis probable, that it contains some *Sal Ammoniack*, united with a good deal of Sulphur. *Vervain* is vulnerary, cleansing, and opening, and febrifugous.

For the Green-sickness, the Patient must drink the Wine in which it has been infused the whole Night. *Cesalpinus* recommends the Powder of it for the Dropsy. The Extract or Juice of *Vervain*, cures intermitting Fevers. The Leaves of this Plant are prescribed after the manner of Tea, to such as are subject to the Vapours. The distilled Water, or the purified Juice of this Plant cleanses the Eyes, and clears the Sight. They are proper in the Distempers of the Throat, by way of *Gargarism*. *Tournefort*.

TABLE XCVI. Fig. 1.

GENUS XV.

Hyssopus, *Hyssop*.

Hyssop is a Plant with a labiated Flower of one single Leaf, whose upper Lip A is upright, roundish, and split in two; but the under Lip C is divided into three Parts, the Middle D being hollow like a Spoon, double pointed, and somewhat winged. Out of the Flower-Cup E rises the Pointal F, fixed like a Nail into the hinder Part of the Flower B, and attended as it were with four Embryo's, which afterwards turn to so many oblong Seeds G, shut up in the Husk H, which before was the Flower-cup.

The Species of *Hyssop* are,

1. *Hyssopus officinarum*, *cœrulea* seu *spicata*. C. B. Pin. 217. Common Garden *Hyssop*. *Hyssopus vulgaris*, *spicatus*, *angustifolius*, *flore cœruleo*. J. B. 3. 274. *Hyssopus vulgaris*. Dod. Pempt. 287.

From a ligneous hard Root, about the Thickness of one's Finger, rise Stalks a Foot or half a Yard high, shrubby and round, when they begin to turn ligneous; for while they are yet tender, they appear to be square. The Leaves are narrow, oblong, smooth, even

even at the Edges, like the Leaves of *Lavender*, but much shorter. The Flowers, which are large and blue, grow in Wherles, resembling long Spikes on the Top of the Stalks, looking almost all one way, standing in long channelled Flower-cups, divided into five sharp Segments; the upper Leaf of which Flowers is divided in two, and turns up, and a Lip split in two hangs down, having two Wings on the upper Parr. In each of the Flowers are four oblong, blue *Stamina*, with their little dark purple Chives.

Lobel tells us, that it grows wild on the rugged Hills of *Romania*, and in the Country of *Verona*, especially towards *Athefis* or *Esf* at the Straits of the Rocks, and the well fortified Castle, which divides the Territories of the Emperor and the *Venetians*, over against Mount *Baldo*; and adds, that he never was so happy as to see it any where else except in Gardens. *Lobel* was certainly more fortunate than I, for when I travelled those Parts, *Hyssop* no where presented it self to my View. *Ray*.

2. *Hyssopus utrinque florida*. *Dod. Pempt.* 287. *Hyssop* bearing flowers on both Sides.

3. *Hyssopus vulgaris*, *Moschum redolens*. *C. B. Pin.* 217. Common *Hyssop* smelling like Musk. *Hyssopus Moschata vel peregrina seu Cilissa*. *Gesner. Hort.* 262.

4. *Hyssopus crispa*. *Gesner. Hort.* 262. Cutted *Hyssop*.

5. *Hyssopus foliis dissectis*. *C. B. Pin.* 217. *Hyssop* with cut Leaves.

6. *Hyssopus spica brevi & rotunda*. *C. B. Pin.* 217. *Hyssop* with a short and round Spike.

7. *Hyssopus versicolor sive aureus*, *Park. Par.* 457. Various or golden coloured *Hyssop*.

8. *Hyssopus vulgaris, alba*. *C. B. Pin.* 218. Common white *Hyssop*. *Hyssopus albis floribus*. *Lob. Icon.* 435.

9. *Hyssopus rubro flore*. *C. B. Pin.* 217. *Hyssop* with a red flower. *Hyssopus Arabum flore rubro*. *Lub. Icon.* 434. *Hyssopus vulgaris, spicatus, angustifolius, flore rubro*. *J. B.* 3. 274.

10. *Hyssopus hirsuta*. *C. B. Pin.* 218. Hairy *Hyssop*.

11. *Hyssopus hirsuta, flore albo*. Hairy *Hyssop* with a white flower.

12. *Hyssopus humilior, myrtifolia*. *H. R. Par.* The lower Myrtle-leaved *Hyssop*.

The Species of *Hyssop* may be known, even without Flower or Fruit, by their long narrow Leaves, and their agreeable Smell.

Hyssop is hot and biting, and has a burning Taste, says *C. Hoffman*, and an Acrimony that pervades the whole Palate; from whence it attenuates, opens and cleanses. Its chief Use is in the tartarous Affections of the Lungs, Cough, Asthma, &c. The Syrup is of excellent Use in the inveterate Distempers of the Breast of long continuance, in which Cases the Syrup of *Liquorice*, of the *Capilli Veneris* and others have not Force enough to answer that End.

It is frequently applied outwardly to Eyes that are black and blue from a Blow, to cleanse and purify the Womb, to remove the Singing of the Ears, by rubbing it and smelling to it, and to cleanse the Mouth, and in a Gargle.

There are some who prefer *Wormwood* to it for strengthening of the Stomach.

Boil'd with Beef, and with other Pot-herbs, shred small, it makes a delicious Broth, that is agreeable both to the Mouth and Stomach.

It provokes Urine, and is likewise good in the dropping of Urine, or Stranguary.

How sovereign a Remedy *Hyssop* is for black and blue Eyes, let *Riolanus* the elder witness. I have found that to be true, says he, which *Archigenes*, as quoted by *Galen*, affirms, That if the Bush of *Hyssop* be boiled in Water, and be applied warm to the bloody Eye, it so evidently sucks away the Blood, that the Linnen which contain'd it will look bloody. Having followed his Authority as Opportunity offered it self, I have recommended the Decoction of *Hyssop* to many against Blows and Bruises, and even against bruises of the Eyes: But instead of Water I ordered the Juice to be boil'd in Wine, and I remember the Bruises vanished according to my Wish, while a little warm Bagg was applied to the Eye-lids when the Patient went to Bed. *Sim. Pauli*.

A famous Man whom I knew well, who had his Thigh grievously bruised by the Kick of a Horse, was cured of the Pain in a few Hours, and the black and blue Mark in his Skin entirely removed, only by the Application of a Cataplasm, made of the Leaves

Leaves of *Hyssop*, shred small, and mixt with fresh unsalted Butter. *Boyle.*

Dioscorides says, That *Hyssop* boil'd with Rue and Honey, relieves such as are troubled with Coughs, Shortness of Breath, wheezing, and rheumatick Distillations upon the Lungs. Taken with *Oxymel*, it purges gross Humours by Stool, and with Honey kills the Worms in the Belly; and taken with fresh or new Figs bruised, it helps to loosen the Belly, but more forcibly if the Root of the *Flower-de-Lis*, and *Cresses* be added to it. *Cardano si jungas, his solves fortius alvum.* It amends and cherishes the native Colour of the Body, that has been spoiled by the yellow Jaundice, and cures the Dropsy and Spleen; if it be taken with Figs and Nitre. It is also an excellent Remedy for those that are troubled with the Squinly, or any swelling in the Throat, to wash and gargle it, if it be boiled with Figs. It eases the Tooth-ach, being boiled in Vinegar, and used as a Gargle; and the hot Vapours of the Decoction taken in at the Ears by a Funnel, cures the Inflammation of them.

Matthioli says, That our *Hyssop* is of thin Parts, that it cuts and breaks tough Phlegm, it rarifies and thins that which is thick and gross, it opens that which is stopped, and cleanses that which is corrupt. For the Falling-sickness use the following Pills.

Take of *Hyssop*, *Horehound* and *Castor*, of each half a Dram, of the Root of *Peony* (the Male kind is most proper in this Disease) two Drams, of *Assa foetida* one Scruple, let them be well beat, and made into seven Pills (or more if they be too big) with the Juice of *Hyssop*; and one of the greater, or two of the smaller taken every Night going to Bed, is the proper Dose, and Time of taking it.

For an inveterate or old Cough, take an Handful of *Hyssop*, two Ounces of Figs, and one Ounce of Sugar-candy; boil them in a Quart of *Muscadine*, till half a Pint be consumed. Which being strained, and taken Morning and Evening, does much avail such as are troubled with an old Cough, by causing the tough Phlegm to be more easily expectorated and voided. It helps to break Wind, brings the monthly Courses, and eases the sharp Fits of Agues. The green Herb bruised, and a little Sugar put to it,

quickly cures any green Wound or Cut in the Hand or in any other Part.

TABLE XCVI. Fig. 2.

GENUS XVI.

Stœchas, *Cassidony*, or *French-Lavender*, by some *Sticadore*.

C*assidony*, is a Plant with a labiated Flower, of one single Leaf, whose upper Lip A is upright, and cut in two; but the under Lip C is cut into three Parts: But both are so cut, that at first sight the Flower appears to be cut into five Segments. Out of the Flower-cup D rises the Pointal E fixed like a Nail into the hinder Part of the Flower B, and attended as it were by four Embryo's, which afterwards turn to so many roundish Seeds F, shut up in the Husk G, which before was the Flower-cup. To these Marks must be added, That the Flowers of *Cassidony* are ranged in a various Series into scaley Heads H, out of the Tops of which peep out some small Leaves I, very entertaining to the Sight, which *Clusius* calls *Membranous Tenens*.

The Species of *Cassidony* are:

1. *Stœchas purpurea*. C. B. Pin. 216. **Purple Cassidony.** *Stœchas Arabica vulgò dicta*. J. B. 3. 277. *Stœchas brevioribus ligulis*. Clus. Hist. 344. This is the *Stœchas vulgaris* of *Parkinson*; and the *Stœchas sive Spica Hortulana* of *Gerarde*.

This is a beautiful as well as useful Shrub, with a pretty thick ligneous Root, sending up ligneous Rods or Stalks, half a Yard or a Yard high, and divided into several Branches. The Leaves grow in Couples at the Joints, resembling Lavender Leaves, and out of their Wings other smaller Leaves, in good Number, being hoary and of an aromattick Taste. Each of the Branches is square, generally beset with Leaves, and end in pretty large Spikes above an Inch long, imbricated with hairy Scales, in which are purple Flowers. Besides, several small purple-violet-coloured Leaves, pleasant to the Sight, peep out at Top, such as may be seen in the *Horminum Matthioli*,

I found it in *Gramont Forest*, and elsewhere about *Montpelier*, and likewise about half way betwixt *Montpelier* and *Arles*. *Clusius* says it grows in many Parts of *Spain*, *Portugal*, and of the South of *France*, where it flowers in the Months of *April* and *May*.

It varies in the white Colour of its Flower, which is *Parkinson's Stæchas vulgaris flore albo*, which he takes by Mistake for the *Stæchas latifolia flore albo* of *C. Bauhinus*.

2. *Stæchas cauliculis non foliatis. C. B. Pin. 216.* *Cassidony* with Stalks that want Leaves. *Stæchas longioribus ligulis. Clus. Hist. 344.*

This *Cassidony* differs but very little from the ordinary Kind: The chiefest Differences observed betwixt them are these; The Tops of the Branches are bare, without Leaves upon them, for above an Hand-breadth in Length, quite to the Heads; and the Heads of these are not quite so large as the other, but longer, and have several more hard, stiff, and longer membranous purplish Leaves rising above their Heads than are seen at any time in the other, which in some Places have the Appearance of some thin Pieces, like thin membranous Leaves, of a purple or blue Colour: The Flowers, Seed and Roots are alike, and so is the Smell.

3. *Stæchas latifolia, flore albo. C. B. Pin. 216.* Broad-leaved *Cassidony*, with a white Flower.

It has Leaves like the Leaves of *Lavender*, and a large white Flower. *Alpinus* gathered it in *Murena* in *Castile*: Nor does *C. Bauhinus* say any more of it, who is the only Author has mentioned it.

4. *Stæchas Lusitanica, ligulis amplioribus, ex roseo & purpureo colore variegatis. Portuguese Cassidony, with large Venous variegated with a rosy and purple Colour.*

5. *Stæchas Lusitanica, foliis viridibus, lanuginosis. Portuguese Cassidony, with green downy Leaves. An Stæchas viridis. J. B. 3. 279.*

The whole Plant is of a pleasant green Colour, with many Leaves upon the Stalks at distances, two long, and several others much shorter; having a roundish Head on the Top of the Stalk, with two small Leaves at top, betwixt which appear yellow Flowers.

Both *Dioscorides* and *Pliny* tells us, that *Stæchas* grows in the Islands of *France*, which lie over-against *Marseilles*, and are called *Stæchades*, and that it received its Name from them. Now the *Stæchades insule* are thought to be the same that are called at this Day, *les Isles d'Ieres*, over-against *Toulon*.

But *Lobel* contends that those noble Nurseries of this most rare Plant, those *Insule Stæchades* which bear the same Name with it, do not lie over-against *Marseilles*, as *Dioscorides* was made to believe, (for they are two Days sail from that and the Shore) but over-against *Olbia*, commonly called *Hyerès*, a small City formerly both noble and splendid, from which the *Insule Stæchades* both took and still retain the Name (not of *Marseilles*, but) of *Hyerès*; for they are called *Insule Hyerès*.

Lemery says, it grows in great Plenty in *Languedoc*, and the Isles of *Hyerès*, called by the Antients *Stæchades Insule*: It delights in dry and sandy Ground, and is brought dry to the Shops, where the Flowers only are used. It is called *Arabian Stæchas*, because the greatest Quantities are brought from thence: It is attenuating, cleansing, opening, cephalick, hysteric, strengthens and comforts the Brain, provokes Urine and the Terms, resists Poison, and removes Melancholy.

Some say this Plant grows near the *Rhine*, that it has a pretty large Flower, much of the Shape of Hops, of a fragrant Smell; that when growing they are yellow and bluish, but when dried of a brown Colour and in Knobs. Those that are largest, best scented, and least broken, are the best. These Flowers are diaphoretick and vulnerary, used chiefly in Diseases of the Head and Nerves, and by their Fume dry up Defluxions. They may be used in Powder from a Dram to two Drams. A *Lixivium* or *Lye* of the Ashes in fair Water, will kill Lice and Nits in the Head. The Spirit of this Flower is reckoned excellent against all cold Diseases of the Womb, as well as against Wind, Gripes and Convulsions; and exceeds *Hungary-Water*, taken either internally or applied externally.

The Syrup of *Stæchas* is given in Coughs, Catarrhs and Barrenness.

Stachas is put into Antidotes, i. e. such Medicines as are Remedies against, or Cures for Infection and Poison. *Mesues* says it purges, cleanses, and resolves all Obstructions of the Liver, Spleen, and other *Viscera*. It hinders Putrefaction, and corrects any Intemperature. By the small astringent Quality that is in it, it strengthens the Brain and Sinews, the Heart, and all the other inward Parts. It purges black Choler and Phlegm, as well from the Head and Brain, as from the Sinews and other Instruments of the Senses, and likewise comforts them. It is very effectual in all cold Distempers, used in Drinks, Baths, or Fomentations. An Oil made of it, and fomented, gives life as it were to the Brain and Sinews, by warming, comforting and invigorating them.

TABLE XCVI. Fig. 3.

GENUS XVII.

Cataria, Catmint.

Catmint is a Plant with a labiated Flower of one single Leaf, whose upper Lip A, is upright, roundish, and cut in two; but the under Lip is divided into three Parts, the middle Part C, being hollow like a Spoon; and the rest D D, like Wings binding a large Orifice or opening, placed between the two Lips. Out of the Flower-Cup E, rises the Pointal F, fixed like a Nail into the hinder Part of the Flower B, and attended as it were by four Embryo's, which afterwards turn to so many roundish Seeds G, shut up in a Husk H, which before was the Flower-Cup.

The Species of Catmint are,

1. *Cataria major, vulgaris*. The larger common Catmint. *Mentha Cataria, major & vulgaris*. C. B. Pin. 228. *Mentha Cataria*. L. B. 3. Part 2. 225. *Cataria Herba*. Dod. Pempt. 99.

2. *Cataria minor, vulgaris*. Common small Catmint. *Mentha Cataria minor*. C. B. Pin. 228. *Cataria tenui folio*. Clus. Hist. 33.

3. *Cataria minor alpina*. The smaller Catmint of the Alps. *Mentha Cataria, Alpina*. C. B. Pin. 228. *Neperilla*. Eyst.

The first Species of this *Catmint* shoots up, from a ligneous Root, a Stalk a Cubit or two Cubits high and better, square, hairy, reddish towards the Bottom, otherwise hoary, concave with many Wings, and those always opposite to one another, in Pairs; in which Order, tho' nor in the same Number, the Leaves bud forth at the Joints, being hairy, hoary, standing upon long Foot-stalks, like the Leaves of the great Nettle or *Baulm*, both in Shape and Jaggs, of a burning Taste, and a Mint Smell, but more stinking. The Flowers come forth in Clusters on the Tops of the Stalks and Branches, out of the Wings of the Leaves, upon the same common Footstalk, each of them sitting in a single Flower-Cup, divided into five sharp Segments, being crested with a Crest cut in two, with a hallow Lip dented in the Edge, marked within with a Line of purplish Spots. The Flowers tend chiefly to one Side.

It flowers in *June* and *July*, and is frequently to be met with in the Country about *Cambridge* and elsewhere about Hedges.

The second Species, which is very beautiful, grew in *Clusius's* Garden, from a Seed sent him from *Spain*, having Stalks half a Yard high, square, jointed, and many Branches shooting from them: The Leaves are oblong and narrow, dented round the Edges and hoary, of a stronger Smell than the Leaves of the common *Catmint*, and of a burning Taste. The Flowers grow in Spikes on the Tops of the Branches, and are white, resembling the Flowers of common *Catmint*. Then the Seed which is contained in small Flower-Cups, is black, and much like *Calamint* Seed. The Root is hard, fibrous, perennial, bearing new Stalks every Year. It flowers in *June* and *July*.

The third Species has square brownish Stalks, a Foot high, branching forth, on which are set Leaves smaller than the former, being somewhat broad, almost triangular, and hoary. The Flowers are small and whitish, set or placed Spike-fashion at Top, like the common Kind.

It grows on hilly Places about *Naples* in *Italy*.

4. *Cataria angustifolia, major*. The greater narrow-leaved Catmint. *Mentha Cataria, angustifolia major*, C. B. 228. *Mentha Cataria, Hispanica, angustioribus foliis*. L. B.

I. B. 3. Part 2. 226. *Cataria folio longiore*. Dod. Pempt. 99. This is the *Nepeta peregrina angustifolia* of Parkinson; and the *Mentha Cataria angustifolia* of Gerarde.

This Species, by the Description of *Dodoneus*, has more Flowers than the common Sort, from a faint red Purple inclining to a Blue, and strewed with small purple Spots. The Leaves are not quite so whitish, which distinguishes it from the other Species.

5. *Cataria angustifolia, minor*. Smaller narrow-leav'd Catmint. *Mentha Cataria angustifolia, minor*. C. B. Pin. 228. Prodr.

This differs so very little from the *tenuifolia Hispanica* of *Clusius*, that I am verily persuaded it is the same. The only Difference is in the Leaves, which in this are pointed, and divided into deep Notches like Jaggs; whereas that of *Clusius* has narrow Leaves, gently notched, and all over hoary. *Parkinson* reduces this to his third Species, or his *Nepeta minor*.

6. *Cataria Hispanica, Betonicae folio angustiori, flore caeruleo*. Spanish Catmint, with a narrow Betony Leaf, and a blue Flower. *Mentha Cataria Hispanica, olim mihi Sideritis altissima, flore subcaeruleo*. I. B. 3. 226. This is the *Cataria altera* of Gerarde, and the *Nepeta peregrina latifolia* of *Parkinson*.

It rises with many square, channelled Stalks, stuffed with fungous Pith, smooth, a Yard and a half high, and sometimes higher, with many hollow Wings, and divided into Branches standing over against one another. The Leaves resemble those of the *Mentastrium*, or the common *Nep*, but are longer, above an Inch broad, smooth, green on the Upper-side, but on the Under-side somewhat more whitish, wrinkled, notched round the Edges, and of a disagreeable heavy Smell. The Flowers standing upon two Foot-stalks do somewhat resemble a Spike with many Wherles, being of a carnation Colour, and mark'd within with deep red Spots.

The Seeds are two or three, and are oblong and reddish. The Tops are purplish; and the Taste of the Leaves is disagreeable.

7. *Cataria Hispanica, Betonicae folio angustiori, flore albo*. Spanish Catmint with a narrow Betony Leaf, and a white Flower. *Mentha Cataria Hispanica, olim*

mihi Sideritis altissima, flore albo. I. B. 3. 226.

8. *Cataria Hispanica, supina, Betonicae folio, tuberosa Radice*. Now Spanish Catmint with a Betony Leaf, and a knobby Root. *Mentha tuberosa radice*. C. B. Pin. 227. *Mentastrium tuberosa radice*. I. B. 3. Part 2. 227. *Mentastrium tertium, tuberosa radice*. Clus. Hist. 33.

This Species has Stalks half a Yard high, square, upright, somewhat hairy, with a great many Knots on them. The Leaves are longish, rugged, somewhat notched round the Edges, not unlike our seventh *Nep*, says *Clusius*, but somewhat more hoary, not of a sweet Smell, and of a bitter and biting Taste. The topmost Branches with the highest Stalk end in soft Spikes of small slender Leaves, among which grow little Stalks composed after the manner of Wherles, from whence proceed white Flowers, resembling the Flowers of common Catmint. When they decay, they are succeeded by Seed equal to the Seed of that other, which is small and black. The Root is thick and full of Sap, very much like the Radish Root, somewhat brown without, and has a great many small Knobs growing or adhering to it at the Sides, and has other longish Fibres hanging at it, is perennial, and produces several Stalks every Year: Nay, the very Knobs broke off from the mother Root, and covered over with Earth, do sometimes produce new Plants.

This Plant grew up to *Clusius* from a Seed he had received from Spain.

9. *Cataria Lusitanica, erecta, Betonicae folio, tuberosa radice*. Upright Portuguese Catmint, with a Betony Leaf, and a knobbed Root. *Cataria radice tuberosa, flore caeruleo, spicato*. V. Lusitan. *Nepeta tuberosa, spicata, purpurea, Hispanica*. Becc. Mus. Part 2. 44. Tab. 36.

It rises a Yard high. It grows on the Hills of *Nursia* and *Pavia*, and on the Hills of Spain. The Plant communicated to me by Dr. *Sherard*, had Leaves very much like Nettle Leaves, very long Spikes, composed of a great many very thick-set and close Wherles. *Ray*.

10. *Cataria Lusitanica, Betonicae folio, minor, radice fibrosa*. A smaller Portuguese Catmint, with a Betony Leaf, and a fibrous Root.

11. *Cataria*

11. *Cataria Cretica, humilis, scordiodides.* The low Candy Catmint like Water Germander. *Scordium alterum, lanuginosius, verticillatum.* C. B. Pin. 248. *Scordole primo legitimo di Plinio.* Pon. Bald. Ital. 90. *Scordis.* P. Alp. Exor. 283.

It bears woolly Leaves like *Mentastrum* or white *Horehound*: It spreads quite around upon the Ground, with many Branches coming from the Root, (which is big and perennial,) which are square cover'd over with Wooll or Flox, as in *Horehound*, on whose Tops stand Flowers like those of white *Horehound* in a certain large Spike, to which succeeds black Seed. The whole Plant is larger and thicker than the common water *Germander*.

It grows every where among Rocks and Stones, on Sides of Roads, and on the Borders of manur'd Fields. It has the Smell of *Garlick* like *Scordium*, and almost all over Candy the Sellers of Perfumes and Ointments use this Herb promiscuously for *Scordium*.

12. *Cataria Cretica, Melissæ folio, Asphodeli radice.* Candy Catmint, with a *Basil* Leaf, and an *Asphodel* Root.

13. *Cataria orientalis, humilis, Lamii folio.* Oriental Catmint, with *Archangel* Leaf.

14. *Cataria orientalis, minima, Lamii folio, flore longissimo.* The smallest oriental Catmint, with *Archangel* Leaf, and a very long Flower.

15. *Cataria orientalis, Teucrii folio, Lavandulæ odore, verticillis florum crassissimis.* Oriental Catmint, with a *Tree-Germander* Leaf, the Smell of *Lavender*, and very thick Whorles of Flowers.

16. *Cataria orientalis, Teucrii folio, floribus rarioribus.* Oriental Catmint, with a *Tree-Germander* Leaf, and thin-set Flowers.

17. *Cataria orientalis, minor, foliis Heliotropii.* The smaller oriental Catmint, with *Turnsol* Leaves.

18. *Cataria orientalis, folio subrotundo, flore intensè cæruleo.* Oriental Catmint, with a roundish Leaf, and a very bright blue-coloured Flower.

19. *Cataria orientalis, foliis oblongis, floribus spicatis, calyce purpureo.* Oriental

Catmint, with oblong Leaves, spiked Flowers, and a purple Flower-cup.

20. *Cataria orientalis, Lavandulæ flore.* Oriental Catmint, with a *Lavender* Flower.

The Species of *Catmint* may be known, even when they want both Flowers and Fruit, by a certain peculiar Smell, which is biting and aromattick, and by its hoary Leaves.

This Plant is called *Nepeta* and *Cataria* indifferently. *Nepeta*, says *Martinus*, from *Nepa*, which signifies a Scorpion, because it is a Remedy against these and all other venomous Creatures.

It is called *Mentha Cataria* by the Moderns, and was not perhaps known to the Ancients; on the account of the agreeable Spectacle it yields; for when a Cat has smelt it (even before she has well seen it) hugg'd it and kiss'd it, wantonly running upon it, and scouring away from it by turns, and has rub'd herself against it very much and long, using strange Postures in playing with it, she at last eats it up and devours it entirely.

This Herb is accounted hot and dry in the third Degree; it consists of small and subtle Parts, it attenuates and opens. Its principal Use is in the Dis-eases of the Womb, (*viz.* Obstructions) in Barrenness, in expelling the Fœtus, as also in cutting the Tartar of the Lungs. It is used externally in Baths for the Womb.

Hoffman says that the Root of this Plant chewed makes meek and gentle Persons to become fierce and wrathful; and acquaints us that *Turneifernus* lays down an Observation concerning a Hangman, that was otherwise gentle and pusillanimous, who never had the Courage to behead or hang any One, till he had first chewed the Root of *Catmint*.

I have often seen this Plant, when transplanted from the Fields to a Garden, wholly tore and destroyed by Cats, who bit it with their Mouth, and welter'd upon it with their whole Body; insomuch that the Ground mark'd and made smooth with their tumbling upon it, has discovered the Place where they had devoured the Plant: Nor could I ever yet observe any thing like this done to any other Plant brought from the Fields

Fields to a Garden. For all that I have ever hitherto transplanted, have remained untouch'd by a Cat, except this alone, which was always thus destroyed; unless guarded and fenc'd round with Thorns, as I have often found, and that in more Places than one. But if it be defended for some time, till it grows up and bears Flowers, it will continue afterwards untouch'd, as will those Plants that rise from fall'n Seed; so that the Cats seem to be fond of it when it is decayed and old, but despise it when it is in its full Growth and Vigour: Which gave Occasion to this *English* Rhyme: *If you see it, the Cats will eat it; If you sow it, the Cats can't know it.* Ray.

Catmint, says Mr. Tournefort, is aromatick, acrid, bitter, and does not redden blue Paper, which discovers to us, that it contains a volatile, aromatick, oily Salt, in which the urinous Part is predominant; as well as in artificial volatile oily Salt. This Plant is very opening, and is proper to provoke the Terms, and to cure the Vapours. It must be taken after the manner of Tea, or by Infusion in Wine. *Tabernaemontanus* says, That *Catmint* boil'd in Water and Honey cures the Jaundice, and a violent Cough. It is commonly used for washing of the Feet in the Green-Sickness.

TABLE XCVII. Fig. 1.

GENUS XVIII.

Betonica, Betony.

Betony is a Plant with a labiated Flower of one single Leaf, whose upper Lip A, is upright and imbricated, and commonly cut in two; but the under Lip is divided into three Parts, the middle Part B, being the largest, and split in two. Out of the Flower-Cup C, rises the Pointal D, fix'd like a Nail into the hinder Part of the Flower E, and attended as it were by four Embryo's, which afterwards turn to so many long Seeds F, shut up in a Husk H, which before was the Flower-Cup. To these Marks must be added, That the Flowers of

Betony grow in Wherles and Spikes upon the Tops of the Stalks H.

The Species of this Plant are,

1. *Betonica purpurea*. C. B. Pin. 235. Purple Betony. *Betonica vulgaris, purpurea*. I. B. 301. *Betonica*. Dod. Pempt. 4.

This common *Wood-Betony* rises with a great many square Stalks, above half a Yard high, and jointed at great Distances: Some of the Leaves grow in Couples over against one another at the Joints of the Stalks, and others lie spread upon the Ground without any Order, being furnish'd with Foot-stalks about a Palm long, and are notched round the Edges, wrinkled, rugged, hairy, and having an aromatick Taste. The spiked Flowers stand upon the Tops of the Stalks, being ranged in Wherles: Below the Spike at some Distance, there is one Wherle of Flowers that encompasses the Stalk. Now these Flowers are purple, with a roundish Crest turning back, and a Lip divided into three Parts, hanging down; out of the Middle of the Opening spring up *Stamina* or Threads of the same Colour with the Flower. The Flower-Cup is divided into five Segments, and is short and gaping. The Wherles are thick-set, nor are there several Flowers upon one Foot-stalk, as in *Calamint* and *Catmint*. The Root is an Inch thick, with many long Sprays hanging at it.

Clusius says there are two Sorts of this common *Wood-Betony*; for one has a shorter Spike of Flowers, and flowers earlier: But the other, has a longer, softer, and browner Spike of Flowers, and displays its Flowers later. This latter uses to grow to a greater Height than the former, tho' it grow wild in the same Place, or be cultivated in the same Bed.

2. *Betonica rubicundissimo flore*, Montis aurei. H. R. Par. Betony with a very red Flower, of Mont d'or in Auvergne.

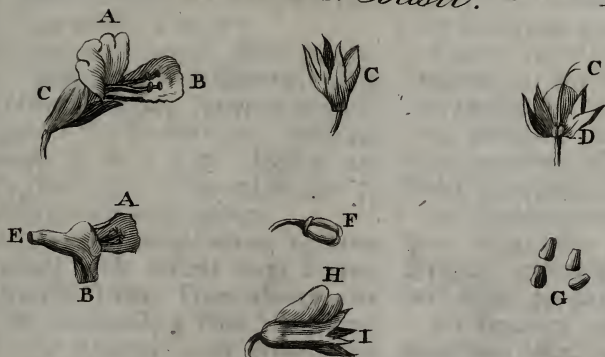
3. *Betonica alba*. C. B. Pin. 235. White Betony. *Betonica flore albo*. I. B. 3. 302. *Betonica albido flore*. Dod. Pempt. 39.

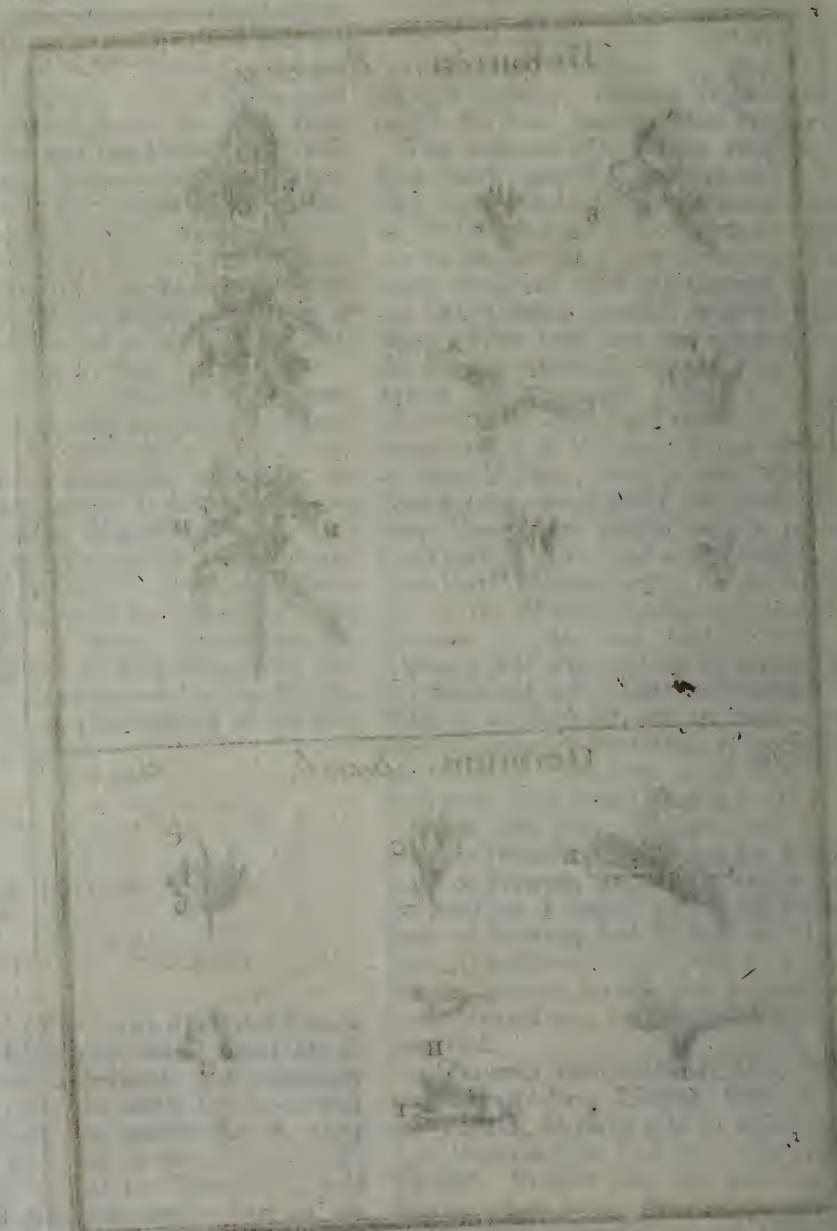
This *Betony* differs in no one Thing from the first, so much as in the Colour of the Flowers, which are wholly white, without any Spots at all in them; only the Leaves may seem to be a little greener, and the spiked

Betonica. Betony.



Ocimum. Basil.





spiked Head of Flowers somewhat smaller than the other. Mr. Ray is of opinion, that it ought not to be reckoned a different Species from it, tho' our Author is of another Mind.

4. *Betonica major*, Danica. Park. Theat. 614. Broad-leav'd, Danish Betony.

Nor does this great Betony differ from the common Sort in any other Thing, than in the Largeness of the Leaves, being twice, and in some sometimes three or four times as large as the common Species, of a strong and almost stinking Smell. The Stalk likewise is stronger and grows higher, and the Heads of purple Flowers are larger.

5. *Betonica minima*, Alpina, Helvetica. Park. Theat. 614. Small Mountain Betony.

This differs from the former, only in the Smallness of all its Parts, viz. Leaves, Stalks, and Flowers.

I have been shewn a smaller Species of *Betony* growing wild here in England; but I am in doubt whether it differs really in Species from the common Sort, or whether it does not owe its Smallness to the Soil where it grows. Ray.

6. *Betonica Alpina*, latifolia, major, villosa, flore luteo. H. R. Par. Great, broad-leav'd, hairy Betony of the Alps, with a yellow flower. *Betonica montana*, lutea. Bar. Icon. *Betonica montana*, lutea, latifolia. Bocc. Mus. Part 2. 82. Tab. 72.

7. *Betonica arvensis*, annua, flore ex albo flavescente. Annual Field-Betony, with a whitish yellow flower. *Sideritis arvensis*, latifolia, glabra. C. B. Pin. 233. *Sideritis glabra*, arvensis. I. B. 3. 427. *Alyssum majus*. Tabern. Icon. 541. Smoother-leav'd, yellow-flowered Field-Ironwort.

It stands upon an annual, white, ligneous Root, furnished with several large Fibres, and of a sweetish Taste. From thence rises a single Stalk, commonly a Foot high, firm, square, hairy, shooting forth Branches in Couples over against one another. The Leaves are broader than those of the *Ladanium segetum*, standing upon Foot-stalks, gradually ending in a sharp Point from a broad Bottom, notched or dented with great Teeth, covered with a short and manifest Down, and soft to the Touch. The crested Flowers are rang'd Umbrella-fashion on the Tops of the Stalks and Branches, sticking out with

a long Pipe, white, and hairy within, with some Tincture of yellow or green. The Label of the Flower, which is divided into three Segments, is painted within with a deep Spot or Stain, mix'd of Yellow and Green. The Flower-cups end in five small Prickles, containing large dark brown Seeds.

It flowers with us in England in the Month of July, or about the Beginning of August. It grows very common among the Corn in the Western Part of Yorkshire, viz. about Wakefield, Darfield, Shiffeld, &c. I have likewise met with it very often beyond Sea: But I cannot help wondering why all the Botanists who have wrote about it, have always called it smooth. Ray.

8. *Betonica matitima*, flore ex luteo pallescente. Maritime Betony, with a pale yellow flower. *Sideritis Heraclea*, latifolia. *Dioscoridis*, *Sideritis marina salvifolia nostra*. Donat. 84.

The Root is about the Bigness of one's little Finger, shrivelled, and yellowish. The Stalk is ligneous and square, on the lower Part betwixt the Leaves, like the Leaves of Sage, but somewhat greener; but those that grow higher are more like the Leaves of Candy Horehound. The Flowers, which are rang'd Spike-fashion after the manner of Sage, encompass the Tops of the Stalks, being dyed of a whitish or ash yellow Colour. The Leaves chewed taste like Mastick.

Magnol found this Plant flowering in the Summer, on the Sea-shore, betwixt Perauls and Maugio.

9. *Betonica orientalis*, *Sideritis facie*, flore purpureo. Oriental Betony, resembling Ironwort, with a purple flower.

10. *Betonica orientalis*, *Sideritis facie*, flore dilutissime purpurascence. Oriental Betony, resembling Ironwort, with a very faint purplish flower.

11. *Betonica orientalis*, angustissimo & longissimo folio, Spica florum crassiori. Oriental Betony, with a very narrow, and a very long Leaf, and a thick Spike of flowers.

12. *Betonica orientalis*, latifolia, caule brevi, flore magno. Broad-leav'd oriental Betony, with a short Stalk, and a large flower.

13. *Betonica orientalis*, latifolia, caule brevi, flore maximo. Broad-leav'd Oriental

ental Betony, with a short Stalk, and a very large Flower.

This Plant is called in Greek *νέσεν Cestron* à remediorum copia & varietate, from the Abundance and Variety of its Virtues. The Word *Cestron* hath divers Significations; for *Suidas* takes it for a Kind of Dart, and *Sophocles* for a Prickle or any pointed Thing. Others do hereby understand Books containing much Variety of Matter; and *Pliny*, speaking of graving, says anciently there were two Ways, the one in Wax, the other in *Ebore Cestro*, i. e. *Verruculo*, which both in Greek and Latin denotes the sharp-pointed Tool, wherewith they graved in Ivory.

It is called in Latin, *Betonica*, and *Vetonica*, ab inventoribus *Vetonibus Hispania populis*, from a People of Spain called *Vetones*, or *Vestones*, who were the first that discovered it.

Antonius Musa, Physician to the Emperor *Augustus*, wrote a whole Book concerning the Vertues of this Plant, from whence it came to be in so much Esteem, that they have a Proverb in Italy to this Purpose: *Vende la tonica, e compra la Betonica*, Sell your Coat, and buy *Betony*. And when they would praise any one very much, they say, He has more Vertues than *Betony*. *Tu hai piu virtu che non hà la Betonica*.

A great many Vertues are ascribed to this Plant taken or applied any how. *Schroder* gives them in short thus, It is biting and bitter. It discusses, attenuates, opens, and cleanses. It is a principal Cephalick, Hepatick, Splenetick, Thoracick, Uterine and Vulnerary, and last of all Diuretick. From hence it comes to be frequently used both internally and externally, especially in the Diseases of the Head.

It is, says *Pliny*, ante cunctas laudatissima, of all the Herbs known to us, it deserves the highest Commendations. *Musa* says it preserves the Lives and Bodies of Men from Danger of Diseases, and from Witchcrafts; and it is found by daily Experience, as *Dioscorides* had related before, to be good in innumerable Distempers; for it cures those who either loath or cannot digest their Victuals; such as have weak Stomachs, sower Belchings, or continual Risings in their Stomachs, if they use it frequently, either green or dry, either the Herb, the Root, or the Flow-

ers in Broth; or made into Conserve, Syrup, Electuary, Water or Powder, according to the Inclination of every different Patient, or as the Time and Season requires.

It cures the Jaundice, Falling-sickness, Palsy, Convulsions or shrinking of the Sinews, the Gout and Dropsy. It relieves such as have continual Pains in their Head, nay even tho' it should turn to a Frenzy. The Powder of the dried Plant mixed with pure Honey is no less available for all Sorts of Coughs or Colds, Wheezing and Shortness of Breath, Distillations of thin Rheum upon the Lungs, which causes Consumptions. The Decoction made with Mead, and a little *Pennyroyal* added to it, is good for such as are troubled with putrid Agues, whether quotidian, tertian, or quartan, that rises from any Disorder in the Stomach. This draws down and evacuates the Blood and Humours, which by falling down upon the Eyes, do hinder the Sight. The Decoction in Wine kills the Worms in the Belly; is good to open the Obstructions both of the Liver and Spleen, and for Stitches or other Pains in the Sides or Back, for gripings of the Guts, and Bowels, and the Wind-Cholick. The same brings down the monthly Terms, and is very effectual for curing such as are troubled with the Fits of the Mother, for causing a speedy and easy Delivery to Women in Travail. It helps to break and expel the Stone, either in the Kidneys or Bladder. The Decoction with Wine, used as a Gargle, eases the Tooth-ach. It is commended against the Sting or Biting of venomous Serpents, and mad Dogs, both used inwardly, and applied outwardly, or laid upon the Wound. It is said also to hinder Drunkenness, if it is taken beforehand, and quickly to remove it afterwards. A Dram of the Powder of *Betony* with a little Honey, in some Vinegar, does wonderfully refresh such as are over fatigued with hard Labour. It stays Bleeding at the Mouth or Nose, and cures such as piss or spit Blood.

The green Herb bruised, or the Juice, applied to any Hurt or green Wound in the Head or Body, will quickly heal and close it up; as also any Vein or Sinew that is cut; and will also draw forth any broken Bone, Splinter, Thorn, or any such Thing, got into the Flesh. It is no less effectual in
all

all putrid Sores and Ulcers, even tho' they be fistulous and hollow ; but for this Purpose some advise to put a little Salt to it.

The Root of this Plant is found to be of very different Qualities from the Leaves and Flowers, as being disagreeable to the Taste, and noxious to the Stomach, causing Loathing, Vomiting, and Belching : Whereas the Leaves and Flowers, by reason of their sweet and aromatick Taste and Smell, are refreshing, agreeable, and beneficial both in Food and Physick. *Park.*

Some who are troubled with Pains in their Head, are wont to smoak the dried Leaves, either alone, or mixed with Tobacco, with good Success.

Tea made of the dried Leaves of *Betony*, *Wood-Sage*, and *Ground-Pine*, sweetned and drunk warm, is a Remedy of admirable Efficacy for the Gout, Headach, and the Affections of the Nerves. *D. Bowls.*

N. B. The Juice of all Plants, after having stood some Time, and turn'd clear by the Fœces subsiding, appear to have some Sort of red Tincture, some paler and some deeper. But of all that I have ever seen, the Juice of common *Betony* is the purest, and least coloured. I had this from *D. Sam. Fisher*, Physician at *Sheffield*. *Ray.*

The Leaves of this Plant have an herby saltish Taste ; they are somewhat aromatick, and do not redden blue Paper : The Flower reddens it a very little, as well as the Root, which is considerably bitter. *Betony* is as full of Sulphur as it can hold, mixed with a little volatile oily Salt, and Earth. By a Chymical Analysis, there is drawn from this Plant Abundance of Oil, little Earth, and fixed Salt, no concrete volatile Salt, but a small Quantity of urinous Spirit. *Betony* is vulnerary, aperitive, diuretick, lenitive, and proper in the Diseases of the Head and the lower Belly. The Leaves of it are used like Tea, for Vapours, for the Sciatica, for the Gout, for Headachs, for the Jaundice, and for the Palsy. The Pisan of the Leaves of *Betony*, the Water in which it has been infused cold, the Conserve of its Flowers, the Syrup of its Flowers and Leaves, the Juice and Extract of those Parts, have all the same Virtues. Those Medicines do likewise procure Expectoration, and bring away purulent Matter : They consolidate internal

Wounds, restore the Functions of the *Primæ viæ* or First Passages, provoke Urine, and remove Obstructions that are in the *Viscera* or Bowels. Of the Leaves of *Betony* is made a Powder for Snuff, a Plaister for Wounds, especially for Wounds in the Head. The Roots have not the same Vertues ; for they purge both upwards and downwards. *Tournefort.*

TABLE XCVII. Fig. 2.

GENUS XIX.

Ocimum, Basil.

Basil is a Plant with a labiated Flower of one single Leaf, whose upper Lip A, is upright, roundish, notched, and larger than the under Lip B, which is generally curl'd, or gently cut. Out of the Flower-cup C, rises the Pointal D, fix'd like a Nail into the hinder Part of the Flower E, and attended as it were by four Embryg's, which afterwards turn to so many oblong Seeds G, shut up in a Husk which before was the Flower-cup. This same Husk is divided into two Lips, of which the upper H, is upright and split in two ; but the under I, has a great many Cuts.

The Species of Basil are,

1. *Ocimum Caryophyllum* Monachorum, five *Acinos Columnæ*. *J. B.* 3. 260. *Glove-gilly-flower Basil* of the Monks, or *Columna's wild Basil*. *Acinos Dioscoridis*. *Col. Phytob.* 23. This is the *Acinos latifolia Columnæ* of *Parkinson*, and the *Acinos odoratissimum* of *Gerarde*.

It has the Leaves of *Baulm*, but longer, and somewhat notched. The Stalk, which is a Cubit and a half high, and sometimes higher, is square, hairy, but not bristly, branched, green like the Leaves, which are hairy and even with long Foot-stalks. Betwixt these Leaves are other Leaves at about the Distance of three Fingers Breadth. It has a Flower and Seed-spike, like the other *Basils*, and each Spike has as it were some other Branches of Spikes growing to them. The Seed of this is smaller and rounder than the others, somewhat red and blackish. The whole Plant, except the Root, has both a

B b b

most

most lively Smell and Taste of *Clove-gilly-Flowers*. The Leaves pierce and bite the Tongue like *Gilly-flower*. The older the Plant is, so much sharper and stronger-smell'd are the Leaves.

This is the Description of the Monks who have commented upon *Mesue*, produced by *J. Bauhinus*.

2. *Ocimum soliorum fimbriis ad Endiviam accedentibus, maximum. H. L. Bat.* The great Basil, with the Fringes of its Leaves very much resembling *Endive*.

3. *Ocimum latifolium, maculatum vel crispum. C. B. Pin. 225.* Broad-leaf'd, spotted or curl'd Basil. *Ocimum sanctomauroitanum, latum, crispum, maximum. I. B. 3. Part 2. 249.* *Ocimum Indicum. Clus. Hist. 352.*

It grows to be a Cubit high, with square Stalks beset with thin-set Hairs, which are divided by Branches opposite to one another. The Leaves which are set at the Joints, are perfectly round, large, curl'd, fringed, of a dark green Colour, or spotted by a Mixture of Red, and of a fragrant Smell. The Flowers are like those of common Basil, being Whorle-fashion'd, and rang'd into a Spike, and are of a light red Colour. The Seed is somewhat larger, black, betwixt oblong and round, and shut up in foliaceous Heads.

The Seed was first sent from the *Indies* into *Spain*, and from thence into *Italy*, *Germany*, &c.

The *Ocimum crispum* of *Parkinson*, with green-fringed Leaves, the *Crispum viride*. *Eyft.* the *Ocimum viride foliis bullatis. C. B.* and the *Indicum viride majus foliis protuberantibus. Eyft.* seem to be nothing else but some degenerated Species or accidental Varieties of the *Ocimum Indicum* now described, growing from the Seed, as *Parkinson* also believes.

4. *Ocimum viride, foliis bullatis. Green Basil, with studded Leaves. Ocimum viride, majus, foliis protuberantibus. Eyft.*

5. *Ocimum foliis fimbriatis, viridibus. C. B. Pin. 225.* Basil with fringed green Leaves. *Ocimum crispum viride. Eyft.*

6. *Ocimum Caryophyllum, maximum. C. B. Pin. 225.* *Ocimum latifolium, maximum.* The greatest *Clove-gilly-flower* Basil.

7. *Ocimum Caryophyllum, majus. C. B. Pin. 226.* The greater *Clove-gilly-flower* Basil. *Ocimum magnum. J. B. 3. Part 2. 246.* *Ocimum tertium, maximum. Dod. Pempt. 279.*

This has a Leaf twice or thrice as large as the common Sort, oblong, notch'd with thin-set Notches, of a pale green Colour, or Red. (for there is a double Sort of this Basil, White, and Red) smelling sweet of *Orange* or *Gilly-flowers*. The Flowers are spiked, and Red or White.

I have frequently observed this beautiful Plant in *Italy* with Stalks half a Yard high, and Leaves larger than those of the *Amaranthus* or *Mercurialis*, standing in their Dining-Rooms and Parlours, or upon their Windows, and in their Flower-Gardens, sowed and raised in Earthen Pots; as *Matthioli* justly observes. *Ray.*

C. Bauhinus distinguishes the Basil in the Green-houses of *Egypt*, which *Alpinus* says grow above three Cubits high, with Leaves longer and smaller than ours, dyed with a red Colour, and breathing a most delicious Smell, from the former Species, and calls it *Ocimum caryophyllum, maximum*; but whether he is in the right must be left to the Curious to examine.

8. *Ocimum nigrum, majus, acuto Rutæ odore. H. L. B.* The greater black Basil, with the quick Smell of *Rue*.

9. *Ocimum Citri odore. C. B. Pin. 226.* Basil smelling like *Lemon* or *Citron*. *Ocimum medium sive citratum. Tabern. Icon. 343.*

This *Citron* Basil does not differ in the Manner of growing from the greater ordinary *Garden-Basil*; but branches out like it, with Leaves set by Couples at the Joints, but much larger, and of a reddish Colour in the hotter Countries, but not so in the colder, a little dented about the Edges, of a very sweet Smell, resembling a *Citron* Peel, and therefore called *Citratum*. The Flowers are white like the ordinary Basil, and the Seed black like it. It perishes after it has flowered and seeded.

10. *Ocimum Anisi odore. C. B. Pin. 226.* Basil smelling like *Anise*. *Ocimum Anisatum. Eyft.*

This *Basil* is of the same Sort with our ordinary *Garden-Basil*, and of a middle Kind, with Leaves neither so large as the greater, nor so small as the lesser Kinds, but of a middle Size betwixt both; the Difference consists chiefly in the Smell, which is very near the Smell of *Aniseed*.

11. *Ocimum vulgatus*. C. B. Pin. 226. Common *Basil*. *Ocimum medium, vulgatus & nigrum*. J. B. 3. Part 2. 247. *Ocimum magnum*. Taber. Icon. 343. This is the *Ocimum vulgare majus* of Parkinson, and the *Ocimum medium citratum* of Gerard.

This Plant rises nine Inches high, and spreads out into several square, somewhat reddish and hairy Branches. The Leaves resemble the Leaves of *Parietaria*, but are smaller, and smooth, sometimes cut in on the Edges, and sometimes not at all, of a fragrant Smell, but of no remarkable Taste.

The Flowers are wherl'd, rang'd into a long Spike, sweet smelling, of a white or purplish Colour, with a longish narrow Label, to which answers on the other Side a Leaf turning upwards, and divided into four Jaggs; having whitish *Stamina* or Threads shooting up out of the Opening, with a purple Pointal. The Seed is very small and blackish. The Root is ligneous, black and fibrous.

From this common middle *Basil*, C. Bauhinus distinguishes the *Ocimum citri odore*, i. e. the *Ocimum medium citratum*. Ad. Lob. But since they do not differ in any Manner, as Lobel says, unless in the more agreeable and delightful Smell, smelling very much like *Citron*; he seems to distinguish them without any real Foundation in Nature.

12. *Ocimum vulgatus*, foliis ex nigro virescentibus, flore albo. H. R. Par. Common *Basil*, with very dark green Leaves, and a white Flower.

13. *Ocimum vulgatus*, foliis ex nigro virescentibus, flore violaceo. H. R. Par. Common *Basil*, with very dark green Leaves, and a Violet-coloured Flower.

14. *Ocimum medium*, crispum, conglomerata brevique spica. H. R. Par. Middle curl'd *Basil*, with a conglomerated and short Spike.

15. *Ocimum minus*, angustifolium, foliis serratis. C. B. Pin. 226. The smaller nar-

row-leav'd *Basil*, with notch'd Leaves. *Ocimum minus, angustifolium, flore albo*. Eyst.

This is not so much branched as the foregoing *Basils*, but rather seems to resemble wild *Basil* or *Clinopodium*, with its fewer Stalks, and thinner-set Branches. It has small narrow Leaves, a little dented about the Edges, growing always at the Knots in Pairs, being thin-set, and spread along the Branches, or at a good Distance from one another. The Flowers are placed on the Tops of the small Branches, resembling those of the common *Basil*, but somewhat more turning back, and of a whitish Colour. The Smell is more faint and dull than in the other *Basils*.

16. *Ocimum minus, angustifolium, bul-latis foliis*. H. R. Par. The smaller narrow-leav'd *Basil* with studded Leaves.

17. *Ocimum tricolor*. H. R. Par. Three-colour'd *Basil*.

18. *Ocimum minimum*. C. B. Pin. 226: The smallest *Basil*. *Ocimum Caryophyllarum, minus*. Tabern. Icon. 344.

This Plant is a Palm high or a little more, growing with very numerous thick-set ligneous Branches, upon which are set Leaves resembling the Leaves of *Mother of Thyme*, or *Marjoram*, betwixt round and oblong, greenish or red, of a most lively, brisk and sweet Smell of *Gillyflowers*. The small Flowers are ranged Wherle-fashion upon the Tops of the Branches. The Root is fibrous.

This is a much tenderer Plant than the common Sort; nor does it easily bring its Seed to full Ripeness in this Country.

19. *Ocimum minimum foliis ex purpura nigricantibus*. H. R. Par. The smallest *Basil*, with Leaves of a black purple Colour.

The Species of *Basil* may be known, even when they want both Flower and Fruit, by a certain peculiar, aromack and sweet-Smell.

Varro writes, that *Ocimum* received its Name from the Greek Word *ὄνυς*, because it grows up very quickly. Theophrastus says that it comes up the third Day after it is sown. But the more learned Botanists (says Jo. Bodaus à Stapel) affirm that this Etymology agrees to wild *Basil*; but they derive the *Garden-Basil* ἀπὸ τοῦ ὀζειν redolere, to smelly sweet: For it is a Plant of a very fine Smell, which strikes the Brain with its Smell, and

makes one sneeze ; and they are of Opinion that it might more properly be written *Oximum* with a Z. The same Author tells us that *Ocymum* differs from *Ocimum* ; for *Ocymus* is a Sort of Forage or Food for Cattle. *Ocymum quod in vinca feri iubent, antiqui appellabant pabulum, umbræ patiens, quod celeriter proveniat* : But *Ocimum* is a sweet-smelling Herb : But it must be confess'd that this Distinction is not always observed by the Ancients.

This Plant is called by the Moderns *Basilicum*, on the Account of its Excellency, because it is worthy to be kept in King's Palaces, and to be handled by royal Hands, for its notable and fragrant Smell.

Schroder does thus briefly describe the Virtues of this Plant : It warms and moistens, digests and resolves, purges the Lungs, brings down the Terms, and therefore may be used both internally and externally.

Hollerius, in his first Book of internal Diseases, observes that a Scorpion was bred in the Brain of a certain *Italian*, by his too frequent smelling to *Ocimum* or *Basil*. *Cammerarius* likewise very often observed, that Scorpions lov'd to nestle under Pots in which *Basil* was kept at *Venice*. And *Dr. Raymond*, an *English* Physician, in his *Italian Mercury*, affirms that he found by Experience, that this Herb, if put under a Stone in a moist Place, would produce a Scorpion in two Days Time ; which was confirm'd to him while he staid at *Siena*, by a rare and memorable Accident. A certain Gentleman of *Siena* being wonderfully taken and delighted with the Smell of *Basil*, was wont very frequently to take the Powder of the dry Herb, and sauff it up his Nose ; but in a short Time he turn'd mad and died ; and his Head being opened by Surgeons, there was found a Nest of Scorpions in his Brain.

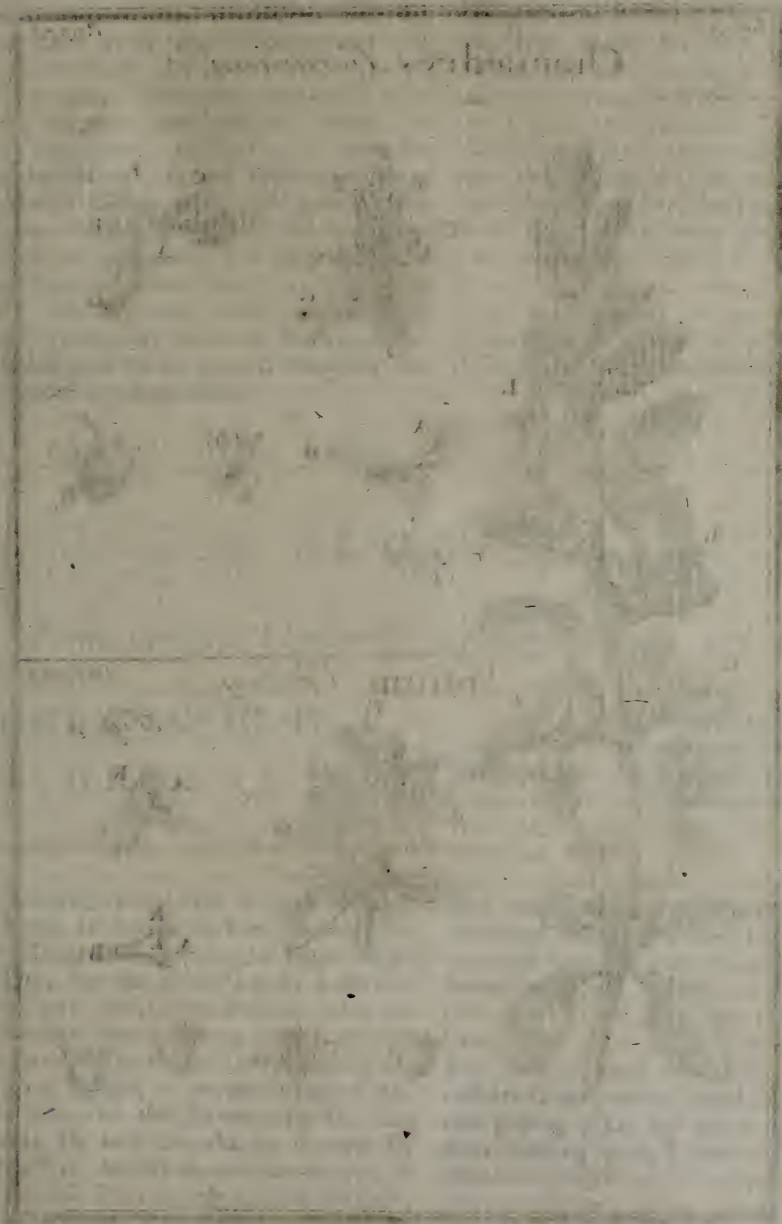
Notwithstanding these Instances produced by Men worthy of Credit, yet I must profess my self to be of the Opinion of the most celebrated Philosophers of this Age, that there is no æquivocal or spontaneous Generation of Animals ; and that therefore it is impossible the Herb *Basil* should of it self produce a Scorpion. In the mean while I will not deny, but those Creatures may creep to that Herb, as being delighted with the Smell of it, or may nestle under it, and perhaps eat

it, and lay their Eggs upon its Leaves and tender Buds ; from whence it might have happened that the foresaid Gentleman might have drawn up the Eggs of Scorpions together with the Powder of the Herb into his Nose, which being nourished by the Heat and Moisture of the Head, might breed Scorpions there.

Dioscorides says that this Herb eaten plentifully, makes the Sight dim and feeble, loosens the Belly, breeds Wind, provokes Urine, withdraws and diminishes the Milk in the Breasts, and is of hard Digestion. *Galen* says it is accounted among those Things that are hot in the Second Degree ; but because it has an excrementitious Moisture joined with it, it is not proper to be taken inwardly. And in another Place, that it is an Herb used in Sauce for Meat, but is noxious to the Stomach, breeding ill Juice, and hard to be digested.

It is held by *Chrysippus* (as *Pliny* testifies) who inveighed bitterly against the Use of it, to be hurtful both to the Stomach, Urine and Eye-sight ; and besides causes a Kind of Madness, Lethargy, and other Diseases of the Liver : and that the People of *Africa* say, That if any one have eaten *Basil*, that Day he is stung by a Scorpion, he cannot be saved : Which Saying is quite contrary to that of *Dioscorides*, who says, in the Name of the *Africans*, That he who is stung by a Scorpion shall have no Pain or Danger, if he hath eaten *Basil* before. *Pliny* acquaints us, that in his Time it was vindicated from such Calumnies as *Chrysippus* had cast upon it, and was particularly recommended as effectual against the Sting of Scorpions, and some other venomous Serpents ; and found to be helpful and wholesome for such as are subject to swooning, if it is used with Vinegar and smell'd to. Used with Oil of *Roses* or *Myrtles* and Vinegar, it is good against the Pains of the Head, and is to good Purpose applied to such as are troubled with the Lethargy, Jaundice or Dropsy. The Juice or the Seed buis'd put into the Nostriils procures Sneezing ; it is good also for the Palpitation of the Heart ; it provokes to Venerie, and therefore was given to Horses to make them apt to breed. Some of the ancient Writers have likewise related, that the Seed is good to kill the Worms in the Belly ; and

Received of the Treasurer of the State of New York the sum of \$100.00 for the purchase of land in the town of ...



Witness my hand and seal this 10th day of May 1870.

John G. Thompson

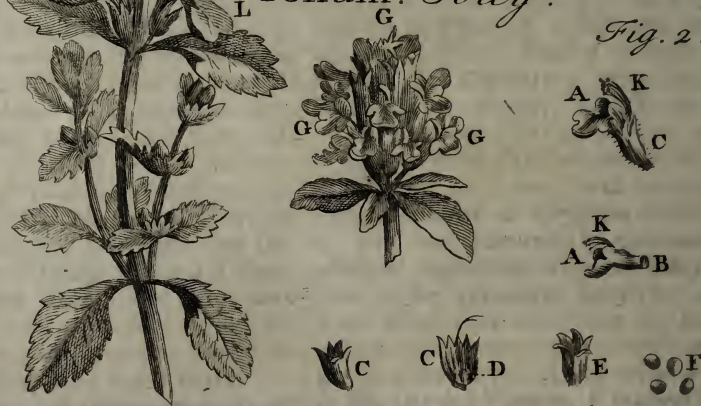
Chamaedrys. Germander.

Fig. 1.



Polium. Poley.

Fig. 2.



and that bruised and mixed with Ox-gall, it takes away the foul Marks and Scars of Ulcers and other Sores. And used with Honey, it takes away any Discolourings and Spots on the Face.

The Arabian Physicians, especially *Mesues* used the Seed among other cordial Spices, for comforting the Heart, &c. for driving away Melancholy and Sadness, without any manifest Cause. And for these Causes chiefly the Seed is prescribed by our Physicians for the most part. The fragrant Smell of this Herb, so comfortable to the Senses, reviving them as it were when they are dull and disordered, may evidently declare a singular Efficacy to be in it, and therefore not to be slighted and contemned.

Before I conclude this Head, allow me to relate a pleasant Passage, that happened betwixt *Francisco Marchio*, an Advocate of *Genoa*, sent on an Embassy to the Duke of *Milan*, and the said Duke: The Duke refusing to hear his Message, or to agree to the Conditions proposed, he brought an Handful of *Basil*, and offered it to him; who demanding of him what he meant by it, answered, That the Properties of that Herb were, that being gently handled, it gave a pleasant Smell; but being hard wrung or bruised, it would breed Scorpions: With which witty Answer the Duke was so well pleased, that he granted the Conditions, and sent him honourably home.

SECT. IV.

Of Plants with a Flower of one single Leaf, and one Lip.

TABLE XCVIII. Fig. 1.

GENUS I.

Chamædrys, *Germander*.

The Species of *Germander* are,
Chamædrys major, repens. C. B. Pin. 248.
 The greater creeping *Germander*. Dod.
 Pempr. 43. *Chamædrys vulgò vera existimata*.
 J. B. 3. 288. This is the *Chamædrys major* of
Parkinson.

Germander is a Plant with a labiated Flower of one single Leaf, whose *Stamina* or Threads F, supply the Place of an upper Lip; but the Under lip A, is divided into five Parts, the middle Part D, being the largest, hollow like a Spoon, and sometimes split in two; while the rest CC, EE, are placed over against it in the Neck of the Flower. Out of the Flower-cup G, rises the Pointal H, and attended as it were by four Embryo's, which afterwards turn to so many roundish Seeds I, shut up in a Husk K, which before was the Flower-cup. To these Marks must be added, that the Flowers of *Germander* LL, rise in the Wings of the Leaves, and are furnished with a fistulous Flower-cup.

This great *Gemander* rises with big and hard Stalks, half a Yard high, spreading into several Branches from the very Bottom; whereon are set two Leaves at a Joint; somewhat larger than in the common Sort, and more dented about the Edges, green above, and somewhat greyish underneath. The Flowers stand in a longer spiky Head, and are larger, but of a paler purple Colour, and gaping like the other. The Root is more bushing with Fibres or Threads, and does not creep so much as the common Sort. *Prosper Alpinus*, in his Book of *Egyptian* Plants, says, That in *Coroira* he saw a *Germander* almost two Cubits high, with Leaves twice or thrice as big as any that grow in *Italy*.

2. *Chamædrys major*, repens, flore albo, & rubello in eadem planta. C. B. Pin. 249. The greater creeping Germander, with a white and a red Flower in the same Plant.

3. *Chamædrys minor*, repens. C. B. Pin. 248. The smaller creeping Germander, or common Germander. *Chamædrys repens, minor*. Dod. Pempt. 43.

It belongs to the Class of Creepers, and shoots down ligneous Roots obliquely into the Earth, and then propagates new Roots by very slender Fibres, sending up small, reddish, downy Rods nine Inches high; on which are set at Distances, Leaves in Couples, divided like Oak-Leaves, above an Inch long, half an Inch broad, stiff, full of Ribs, of a bitterish, sweetish, and aromatick Taste. The Flowers grow in Wherles, Spike fashion, being purplish, with a Lip shap'd like a Saucer, and two sharp narrow Wings, plac'd at the narrow Neck, above which stands as it were an upright Dart or Prickle. But instead of a Hood, which they want, they are furnished with purplish Stamina.

It grows common in Germany, France and Italy.

I have likewise met with it frequently in England, but whether wild or no I am not certain. Ray.

4. *Chamædrys minor*, repens, flore niveo. C. B. Pin. 248. The smaller creeping Germander, with a snowy Flower. *Chamædrys minor, albo flore*. Clus. Hist.

5. *Chamædrys Alpina*, villosa. Hairy Germander of the Alps.

6. *Chamædrys palustris canescens*, seu *Scordium officinarum*. C. B. Pin. 247. The marshy, hoary Germander, or Water-Germander of the Shops. *Scordium*. Dod. Pempt. 126. I. B. 3. 292.

I place *Water-Germander*, says J. Bauhinus, which is an Herb of celebrated Vertue against Poisons, amongst the creeping Plants. The Stalks which are a Palm high, and sometimes higher, branch'd, growing up with Joints, take hold of the Earth with their hanging Fibres, after the Manner of *Pennyroyal*; but some of them are erect, and several hairy, square, empty ones grow up from the capillary Roots. The Leaves resemble those of *Germander*, and are oblong, shrivell'd, notch'd, soft to the Touch, hairy, whitish, with a *Garlick* Smell, but somewhat

milder and more agreeable, and bitter to the Taste. Out of their Wings do likewise spring little Branches. The Flowers grow in Fours all along the Stalk, perfectly resembling the Flowers of *Germander*, of a red Colour, hanging down a Lip in Shape of a Saucer, having on the upper Part four Stamina in lieu of a Crest or Hood, which is wanting in this as well as in the common *Germander*. The Stamina are small and purplish. The Flowers peep out of a little Bag or Husk, divided into five Points, (which is common to almost all the Flowers of wherl'd Plants) and downy, with a short reddish Foot-stalk. The Seed is very small.

It grows in great Abundance in the marshy Grounds in the Isle of Ely.

7. *Chamædrys fruticosa*, sylvestris, Melissæ folio. Wood, Shrubby Germander, with a Baulm Leaf. *Scordium alterum, five Salvia sylvestris*. C. B. Pin. 247. *Scorditis five Scordium folio Salviae*. I. B. 3. 293. *Salvia agrestis five Sphacelus*. Dod. Pempt. 291. This is the *Scordonia*, five *Salvia agrestis* of Gerarde, and the *Scordonia*, five *Scordium alterum quibusdam*, & *Salvia agrestis* of Parkinson. Wood Sage.

This Plant has a Bending, warp'd, hard, creeping Root, shooting down slender, and sometimes long Fibres; from which rise up several Stalks, a Cubit, and two Cubits high, square, hairy, purplish or blackish, full of white Pith; at whose Joints are set Leaves at Distances, in Pairs, opposite to one another, resembling the Leaves of *Sage* or *Betony*, unless that they are sharper, not much unlike *Nettle* Leaves, shrivell'd, dark Green, rugged and dry, hairy, dented round the Edges, and bitter to the Taste. The Stalk is divided into several Shoots at Top, on which the Flowers are ranged Spike-fashion, inclining to one Side, each rising out of the single Wings of the opposite Leaves, and therefore together in Couples, with short Foot-stalks, of an herby, or a pale white Colour, out of whose Yawn or Opening come forth purplish Stamina instead of a Crest; and standing in a Flower-cup, whose upper Segment is entire, and bends upwards, but the under divided into four little Teeth or Prickles. The Seeds are brown, like the Grains of *Basil*.

It grows in Woods and Thickets.

The Decoction of this Plant provokes Urine and the Monthly Terms; and is given with Success in the *Veneral Disease*. It is one of the principal vulnerary Plants, whether taken inwardly in Potions, or applied outwardly. It agrees in Vertues with *Scordium*, and in *Gesner's Opinion* is preferable to *Scordium* in Physick. *Hildanus* celebrated this Plant in a wonderful Manner for gangrenous Ulcers, and doubling the Dose, substituted it in the room of *Scordium*.

8. *Chamædrys fruticosa, sylvestris, Melissa folio variegato*. Shrubby, *Wood-Germander*, with a variegated Baulm Leaf. *Scordium alterum, seu salvia sylvestris folio variegato*. H. R. Par.

9. *Chamædrys fruticosa, Insularum Stœchadum, Melissa folio minori, Pomum redolens*. Shrubby *Germander des Isles des jeres*, with a small Baulm Leaf, and smelling like Apples.

10. *Chamædrys fruticosa, Lusitanica, Melissa folio minori, flore purpureo*. Shrubby *Portuguese Germander*, with a small Baulm Leaf, and a purple Flower.

11. *Chamædrys frutescens, Teucrium vulg.* Frutescent *Germander*, commonly *Tree-Germander*. *Teucrium multis.* I. B. 2. 290. *Teucrium*. C. B. Pin. 247. *Chamædrys assurgens*. Dcd. Pempt. 44. This is the *Teucrium majus, vulgare of Parkinson*, and the *Teucrium latifolium of Gerard*.

Tree-Germander, which is allied to *Germander*, rises higher, with upright, ligneous, square, hairy Rods, on which are set at small Distances on both Sides hairy Leaves, shining with a black Greenness on the upper Side, and somewhat hoary underneath. The undermost Leaves do very much resemble the Leaves of *Germander* both in Shape and Size; and are jagged, of an oblong round Shape, and smelling sweet if you bruise them with your Hand, but such as adorn the Tops of the Stalks do somewhat resemble the Leaves of *Horehound*, not at all cut on the Edges, broad at Bottom, and ending in a Point. The Flowers peep out of the Wings of the uppermost Leaves, several of them being joyn'd together, hanging upon pretty long Foot-stalks, with a hairy, whitish Flower-cup, in the Shape of *Germander Flowers*, with a longer Lip hanging down, but without a Hood or Cowl; in lieu of which came

forth yellow *Stamina*, of which Colour the Flower is also. This Plant has a somewhat biting Taste, with a Bitterness which is not disagreeable.

12. *Chamædrys Alpina, frutescens, folio splendente*. Frutescent *Germander of the Alps*, with a shining Leaf. *Chamædrys Alpina, lucida*. H. R. Par. *Chamædrys durior, Alpina*. Brofs.

The Roots are divided into many Parts, are blackish, hard and fibrous. The Stalks are branch'd, square, smooth, a Cubit high; at whose Joints are set Leaves half an Inch long, in the Shape of common *Germander* Leaves, bright, shining, and deeply cut; such as grow towards the Top are shorter, and generally divided into three Parts. The Flowers rise in the Wings of the Leaves in a long Series, and are rang'd in a very beautiful Order, differing from the Flowers of the common *Germander* only in Bigness. The Flower-cup is fistulous in like Manner, channel'd, purplish, divided into five Segments, and contains four dark-coloured Seeds.

It delights in the herby and watery Parts of the *Alps*, and grows likewise in *Savoy* in the Valley of *Brasillione*.

13. *Chamædrys fruticosa, lucida, Hispanica*. Shrubby, shining *Spanish Germander*.

14. *Chamædrys fruticosa, Cretica, purpureo flore*. Shrubby *Candy Germander*, with a purple Flower. *Teucrium Creticum odoratum, flore purpureo*. H. R. Par.

15. *Chamædrys multiflora, tenuifolia, Hispanica*. *Spanish many-flower'd, thin-leav'd Germander*.

16. *Chamædrys Hispanica, minima, saxatilis, incana*. The smallest *Rock, hoary, Spanish Germander*.

17. *Chamædrys maritima, incana, frutescens, foliis lanceolaris*. Maritime, hoary, frutescent *Germander*, with Leaves shap'd like a Lance. *Marum Cortusi*. I. B. 3. 242. This is the *Tragoriganum latifolium*, sive *Marum Cortusi Matthiolo of Parkinson*; and the *Tragoriganum Lobelii of Gerard*.

It is a thick-set Shrub, like *Thyme* or the harder *Mastichina*, with ligneous and hoary Rods, which are clothed with Leaves at the Joints, that are not unlike the Leaves of *Mother of Thyme*, larger than *Thyme Leaves*, hoary underneath, green on the upper Side, of a bitter and biting Taste, and an agreeable

able Smell. The Flower resembles that of the true *Germander* in Bigness, nor is it unlike in Shape, with a Lip hanging down that is cut into several Parts, little twisted *Stamina* supplying the Place of a Crest or Hood, and a Flower-cup also of the Size of that of *Germander*, which is hairy and hoary.

18. *Chamædrys laciniatis foliis.* Lob. Icon. 385. *Germander* with jagged Leaves. *Botrys Chamædryoides.* C. B. Pin. 138. *Botrys verticillata.* I. B. 3. 298.

This Species has a small Root sending forth large Sprays, that are capillated with very small Filaments. From this rises up generally one single Stalk, and sometimes more, square, hairy, reddish, weak, and scarce able to support themselves, sometimes a Foot high, clothed with Leaves at Distances, growing in Couples over against one another, and resting upon long hairy Footstalks. The Leaves on the upper Side are dark Green, wrinkled, blunt, deeply cut into several Pairs of Segments that answer to one another. The Flowers, which rise out of the Wings of the Leaves, encompass the Stalk Whorle-fashion, resting upon longish hairy Footstalks, in an oblong Flower-cup, purplish, not crested, but the *Stamina* and Pointal supply the Want of a Crest or Hood; an entire Lip hangs down, white in the Middle, strip'd with deep-colour'd Spots and Lines, and frequently has two Pair of Jaggs.

It flowers in *June*; and is every where to be met with in the barren Fields of *Germany*, and about *Geneva*.

19. *Chamædrys multifida, spinosa, odorata.* V. Lust. Prickly, Sweet-smelling *Germander*, divided into many Parts.

20. *Chamædrys Cretica, inodora, Melissæ folio, flore parvo, albido.* Candy unfavoury *Germander*, with a Baulm Leaf, and a small white Flower.

21. *Chamædrys Cretica, saxatilis, folio exiguo, subrus incano.* Rock *Germander* of Candy, with a very small Leaf hoary underneath.

22. *Chamædrys Cretica, latissimo folio, flore parvo.* Candy *Germander*, with a very broad Leaf, and a small Flower.

23. *Chamædrys Cretica, palustris, canescens, Scordiodides, Betonica folio.* Candy marsh, whitish, *Germander*, resembling *Scordium*, with a *Betony* Leaf.

24. *Chamædrys Samia, frutescens, Betonica folio.* Samian frutescent *Germander*, with a *Betony* Leaf.

25. *Chamædrys orientalis, latifolia, villosa.* Oriental, broad-leav'd, hairy *Germander*.

26. *Chamædrys orientalis, minor, repens flore ruberrimo.* The smaller, creeping oriental *Germander*, with a very red flower.

From this Genus must be excluded *Chamædrys Alpina, Cisti flore.* C. B. Pin. 248. which must be reduced to *Caryophyllata*. *Chamædrys alpina, saxatilis.* C. B. Pin. 248. which is a Species of *Speedwell*. *Chamædrys unicaulis, spicata.* C. B. Pin. 248. of which we have treated under the Genus of *Pedicularis*. *Chamædrys alpina, minima, hirsuta.* C. B. Pin. 248. and the Species of bastard *Germander*, which are to be reckoned among the *Speedwells*.

This Plant is called *Chamædrys* from two Greek Words, χαμαι humi, and δρῦς *Quercus*, as if it was called a low *Oak*: for several of the Species of *Germander* are thought to resemble *Oak* in the Shape of the Leaves.

This Herb consists of fine and subtle Parts: It powerfully provokes Urine and Sweat: and for this Reason it is good in Fevers, Scurvy, coagulated or clotted Blood, and especially in Pains of the Nerves and Joints, in the Jaundice, and Suppression of the Urine. *Schrod.*

It is applied externally to creeping Ulcers, in the raging Pain of the Piles, in the Ears that are infested with Worms, in the Mange and Itch, and in drying up of Catarrhs.

Vesalius writes, in *Epist de China*, That the Decoction of *Germander* was recommended by the Physicians of *Genoa* to the Emperor *Charles V.* for a perpetual Relief in the Gout; the Decoction being made either of Wine or distilled Water. Try it who will, says *C. Hoffman*, (who says he follows the Opinion of *Tragus*,) he will find it as effectual as *Betony*; and that it is very proper to be put into Decoctions against Obstructions.

The Decoction of this Plant is very much used by our Women, in the Suppression of their Terms.

This Plant is called *English Treacle* about *Cambridge*, doubtless because it is an *Alexipharmack*, or an Antidote against Poison.

One

One who was famous for curing of the King's Evil gave the Decoction of this in two Pounds of White-wine, boil'd away to one Pound. The Dose was six Spoonfuls Morning and Evening, for a whole Month: But finding this would not do, he gave the Infusion of *Rosemary* and *Harts Tongue*, of each one Handful, in four Pounds of Wine for 24 Hours; and the Patient took of this eight Spoonfuls twice every Day: And with this Decoction he likewise fomented the Parts affected, but with what Success is not told. *D. Hulse à MS. nondum Editio.*

The Powder of *Germander* is celebrated amongst the *Egyptians* against intermitting Fevers. *P. Alpin. de Medicina Egyptiorum.* This Plant is likewise commended against intermitting Fevers by *Montanus* and *Barcellii*. Many Country People cure *quartan Agues* with the Powder of *Germander* taken in Broth for some Days. *River. Centur. Observ. iv. Observ. 84.*

The Leaves of the third Species are bitter and aromatick: They do not redden blue Paper, which shows that they contain Principles different from those of the small *Centaury*. The Salt of *Germander* does not differ from the Salt of the Earth, which is a Mixture of Sea-Salt, Nitre, and *Sal Ammoniack*; it is biting, very bitter, and very opening. It is probable, that what we find in this Plant has lost its Acrimony by the Mixture of Abundance of essential Oil, which renders *Germander* aromatical. It is febrifugal, stomachick, aperitive, and diaphoretick. An Handful of the Leaves of this Plant infused over Night in a Glass of White-wine cold, with half a Dram of vegetable Salt, and drunk in a Morning fasting, is prescrib'd for the Green-sickness.

There is an Extract of the Leaves and Flowers of this Plant prepared, a Dram of which is prescribed with one or two Drops of the Oil of *Cinnamon*, as likewise the Leaves infused like Tea, especially for the Gout and Sciatica. They are an Ingredient in the Powder of the Prince of *Mirandola*, which passes for a grand Specifick for all such Distempers: The Composition of it is as follows:

You must dry and reduce to a very fine Powder, equal Quantities of the Leaves of *Germander*, *Ground-Pine*, lesser *Centaury*,

round *Birchwort*, and *Gentian*: Mix all these Powders together, keep them in a dry Place, and in a Box close shut, after having sifted them through a Searce of Silk: Infuse a Grain of this Powder all Night in half a Glass of good old Wine, or in Broth with the Fat scumm'd off. It is better to take it in Substance, than to throw away the Settling, and only drink the simple Infusion. They pretend that you must make use of this Powder for a whole Year, every Day, either Evening or Morning, once in two Days, or at least once every Week. The Patient must take no Sustainante till three or four Hours after this Medicine. He must be purged by the Advice of Physicians, in the Beginning of the Seasons, or oftner if necessary. He must avoid ragoo'd Meats, all Sorts of Milk, and violent Exercises. This Powder is excellent also for intermitting Fevers, for the Dropsy, and for all Distempers that proceed from great Obstructions in the Viscera. *Germander* is used in Treacle, in the *Hiera Diacolocynthidos*, in the *Syrupus Hydragogus* of Mr. *Charas*, and in the *Syrupus aperitivus & cachecticus* of the same Author; in the compound Oil of *Scorpion*, and in the *Unguentum Martiatum*. *Tournefort.*

The 6th Species here described, which is the *Scordium officinarum*, received its Name from hence, That the Leaves of it being bruised smell like *Garlick*, which the *Greeks* call *σκόροδος*. it grows in moist and watery Places, and in Meadows, and is therefore called *Water Germander*.

The Vertues of it are as follows: It warms and dries; cleanses and attenuates; resists Putrefaction, is an *Alexipharmack* or an Antidote against Poison, and a *Sudorifick*. Its principal Use is in the Plague, in pestilential Diseases, malignant Fevers, (as well to prevent as to cure them) in the Obstructions of the Liver and Spleen, in purulent Lungs, and such as are stuffed with mucilaginous and tough Matter. Externally applied it cleanses Wounds and Ulcers, and alleviates the Pains of the Gout.

There are those who say, it is given with Success in the Monthly Terms.

We find it recorded by *Galen*, who tells us he had it from credible and faithful Authors, That after a famous Battle, when the

Bodies of the Slain lay many Days unburied, all those that happened to lie upon *Scordium*, were much less corrupted than the rest, especially those Parts of them that lay next to the Herb; from whence it was found that *Scordium* was an Enemy to Corruption, and was afterwards applied as a Remedy in Cases where that was either to be prevented or cured.

The Juice or Powder of this Plant is good for killing Worms in the Belly; but its chief Vertue consists in expelling Poison or Venom, and in curing or preventing the Plague and other contagious Distempers.

Of this Plant there is prepared an Electuary, which is thence called *Diascordium*; which is of excellent Use in all the Distempers aforesaid. It is a noble Cardiack, and is used in all those Cases in which *Theriack* and other hot Things do not take Place or are not proper. Our Nurses give a small Dose of this to Children troubled with the Gripes.

Gasp. Guittmannus successfully cured many running pestilential Bubo's, and malignant Ulcers, by the sole Use of the Powder of *Scordium*, and opened such as were not yet broken. *D. Seame.*

The Decoction of this Herb in Wine is good against the Bittings of all venomous Beasts, and Serpents, and other deadly Poisons; as also against the gnawing Pains of the Stomach, and Pains in the Side, that proceed either from Cold or Obstructions, and against the bloody Flux. Made into an Electuary with *Cresses*, Rosin and Honey, it is an excellent Remedy for an old Cough, to help to expectorate rotten Phlegm out of the Chest and Lungs; and to relieve such as are bursten, or such as are troubled with Cramps.

It is a principal Ingredient both in *Mithridate* and *Treacle*, as an Antidote against all Poisons and Infections either of the Plague, or pestilential and epidemical Diseases, such as the Small Pox, Measles, and Purples. It is a most certain and known Remedy to kill the Worms either in the Stomach or Guts; taking a little of the Juice, or the Powder in Drink fasting. The Decoction of the dried Herb, with two or three Roots of *Tormentill* sliced, and given to

such as are troubled with the bloody Flux, is a safe and sure Remedy.

We owe the Knowledge of this Plant, says Mr. *Tournefort*, to two Persons, who very much distinguished themselves by their Learning, viz. *William Pelissier* Bishop of *Montpelier*, and *Rondelet*, a famous Professor in the University of the same City. By the Smell of *Garlick*, which sensibly discovers it self in this Plant, they discovered, as they were walking in the Fields about *Montpelier*, that this was the Plant which the Ancients had called *Scordium*. The Comparison which *Dodonæus* makes betwixt the Flowers of this Plant and those of *Lamium* is not very just; for it is certain, that the Flowers of *Scordium* are exactly like those of common *Germander*. These Flowers are better represented by *Tabernamontanus* in the Figure of his *Scordium*, than in those which the same Author has called *Scordium majus* & *minus*. *Scordium*, continues our excellent Author, is bitter, aromattick, and reddens blue Paper a little. This Plant contains a volatile oily Salt, of which the *Salt ammoniack* is not perfectly simple. *Scordium* is a good Dissolver, Opener, Diuretick, and Sudorifick. The Infusion of it is proper to be drunk in malignant Fevers, in the Small Pox, in the Measles, and in all the Diseases of the Skin. *Scordium* is drunk like Tea, or a Handful of it boild in lean Broth, in order to restore the Appetite, to prevent the Gout, to kill the Worms, and to purify the Blood by insensible Transpiration. Half an Ounce of the Extract of this Plant in a Bolus, or an Ounce of the Conserve of its Leaves and Flowers commonly makes one sweat. This Conserve is prescribed for such as spit purulent Matter, or such as is not yet come to a Consistency.

This Plant is likewise cleansing and vulnerary: It is used in Lotions with small *Wormwood* and small *Centaury*: they make Fomentations of these Herbs, and apply them by way of Cataplasim to the Parts threatened by a Gangrene. As for such Persons as are gangrenated, or have the Gangrene actually upon them, they must have the mortified and rotten Flesh eaten away by the Water of Sublimate corrosive and *Arsenick*, or by *Butter of Antimony*; for without those Assistan-

ces,

ces, the vulnerary Plants will never be able to recover them. *Scordium* is used in Theriac Vinegar, in Treacle, in Mithridate, in the Orvietan composed by *Hoffman*, in the Antidote of *Matthiolus*, and in most alexiterial Confections. This Plant has likewise given its Name to the *Diascordium* of *Frascario*, and to that of *Sylvius*. *Tournefort*.

The 7th Species, which is generally called *Wood Sage*, is by the old Physicians reckoned hot and dry in the second Degree. The Decoction of this Plant is recommended in the Suppression of Urine, or of the Courses, for it is accounted effectual in provoking of both. It is likewise thought to be good in the French Disease, because the Decoction of it drunk provokes Sweat, digests the Humours, and dissipates Swellings and Nodes in the Flesh. The Decoction of the Herb, rather green than dry, made with Wine, is esteemed a safe and sure Remedy for such as by Falls, Bruises, or Beatings, are apprehensive some Vein or other Vessel is broken, to disperse and void the coagulated Blood, and to consolidate the Vessel: This is likewise found to be a sure Remedy for the Palsy. The Juice of the Herb, or the Powder dried, is good for moist Ulcers, and Sores in the Legs; nor is it less effectual in curing of green Wounds.

The Leaves of this Plant are very bitter and aromack, with some small Taste of *Garlick*, and gives but a faint Tincture of red to blue Paper; which makes me believe that they contain a Salt like that of *Germander*, but more saturated with essential Oil, and in which *Sal ammoniac* gives a small Discovery of it self. This Plant is very opening, diaphoretick, vulnerary, and resolvent. *Dodonæus* prescribes the Decoction of it in the Venereal Distemper: *Tragus* praises the Juice and Infusion of it in Wine, as a very aperitive and sudorifick Remedy, proper to fortifie the Stomach, to kill the Worms, to provoke Urine, to carry off the Jaundice, and the tertian Ague. It is used in *Paris* with good Success, for the Dropsy, by drinking every four Hours a Glass of Wine, in which this Plant has been infused. *Tournefort*.

TABLE XCVIII. Fig. 2.

GENUS II.

Polium, *Poley-mountain*.

Poley-mountain is a Plant with a labiated Flower of one single Leaf, whose Stamina K, supply the Place of the upper Lip; but the under Lip A, is divided into five Parts, just as in the *Germander* Flowers. Out of the Flower-cup C, rises the Pointal D, fixed like a Nail into the hinder Part of the Flower B, and attended as it were by four Embryo's, which afterwards turn to so many Seeds F, shut up in a Husk E, which before was the Flower-cup. To these Marks must be added, That the Flowers of *Poley-mountain* stand collected into a Head on the Tops of the Stalks and Branches.

The Species of *Poley-mountain* are,

1. *Polium Lavandulæ folio*. C. B. Pin. 225. *Poley-mountain* with a Lavender Leaf. *Polium recentiorum fœmina*, *Lavandulæ folio*. Lob. Icon. 488. This is the *Polium montanum Lavandulæ folio* of C. Bauhinus and Parkinson, and the *Polium Lavandulæ folio, flore albo* of Gerarde. Lavender-leaf'd *Poley-mountain*.

This *Poley-mountain*, from a hard ligneous Root, spreading round many small Fibres, sends up several weak Branches, hardly able to stand upright, but rather lying along; on which are set many small long Leaves, in Couples, over against one another, which are somewhat green on the upper Side, and hoary underneath, somewhat resembling the Leaves of *Rosemary* or *Lavender*, and not at all snipt round the Edges. At the Tops of the Branches many Flowers display themselves, not bushing as in most of the other Species, but loosely spread, of a white Colour, not differing in Shape from the rest, and coming forth out of a greyish Husk not quite so hoary as some of the others. The Seed is black as in the others. This Species has a very faint sweet Smell, nothing so agreeable as most of the others. *Lobel* says it has little or no Smell at all. *Matthiolus* says it smells well,

tho' not so pleasant as his former, and that it is of less Vertue and Efficacy than it.

It grows in great Plenty on the Mountains about *Basil* and *Geneva*, and elsewhere.

Mr. *Ray* thinks this Plant does not truly belong to the Genus of *Poley-mountain*, because its Leaves are neither woolly, nor snipt about the Edges; but by its Flower and Seed it certainly belongs to it, as Mr. *Tournefort* has determined.

2. *Polium Lavandulæ folio angustiori*. *C. B. Pin.* 220. *Poley-mountain* with a narrower *Lavender* Leaf. *Polium Campestre*. *Tabern. Icon.* 365.

3. *Polium montanum, luteum*. *C. B. Pin.* 220. *Yellow Poley-mountain*. *Polium luteum*. *Lob. Icon.* 487. This is the *Polium-montanum vulgare* of *Parkinson*.

This Species of *Polium* or *Poley mountain*, that is most common in our Gardens, is a small low Plant, with several white or hoary, round, and hard Branches, (rising from the Root, which is somewhat long and hard, with a few Fibres shooting from it) not above a Foot high, whereon are set several long and small hoary Leaves, overlaid as it were with a whitish yellow Down, somewhat dented round the Edges, and broader or larger than most of the other Sorts, standing always together in Couples as they grow up; at the Tops of which bud forth whitish or hoary-yellowish Heads, thrusting out many small pale-coloured Flowers, and in some Places more yellow, and standing in hoary Husks. The Seed is small and blackish. The whole Plant smells sweet, but somewhat quick and piercing withal, the Branches whereof being slipt and set in the Ground will grow very well, whereby it may be easily propagated; for in this Country the Seed seldom comes to that Maturity as to be fit to be sown. Yet *Clusius* says, that he had some Plants raised from the Seed of this Species, that brought forth Flowers paler than the Mother Plant, and some whiter, especially on the Out-side, and were pale on the In-side. *Baubin* adds, That it produced some Plants whose Flowers were of a whitish purple Colour, to be reckoned the fourth Species of *Clusius*; which I am sure is not to be found in *Clusius*, who in that Place makes no mention of any with a purple Flower raised from the Seed.

It flowers in its native Soil in the Month of *March*, but in *Holland* later. It rises in the Kingdom of *Granada*, and *Valencia*. Mr. *Magnol* found it in the uncultivated Ground about the Forest of *Valens*.

4. *Polium montanum, album*. *C. B. Pin.* 221. *White Poley-mountain*. *Polium montanum*. *Clus.* 361. This is *Polium Monspeliacum* of *Parkinson*.

This Species is very like the *Polium Montanum minus*, but that the Branches stand not so upright but lean more downwards; nor are the Leaves quite so large, but as white and hoary, and a little more dented about the Edges. The hoary Heads of Flowers, which are white, are smaller, and more closely compacted; but in other Respects it differs not from the other.

5. *Polium montanum, alterum, foliis angustioribus, capitulis longioribus*. *C. B. Pin.* 221. Another *Poley-mountain*, with narrower Leaves, and longer Heads. *Polium 2dum albo flore*. *Clus. Hist.* 361.

This differs from the former in its upright Stalks, narrower Leaves, dented only towards the Point; larger and longer Heads, which yet are more lax, and not quite so compact. Notwithstanding which, *C. Baubinus* makes it to be the same Species with the former. But I could almost positively affirm, says Mr. *Ray*, that both these Species are the same with the *Maritimum Monspeliacum*. But the Authority of *Clusius* has so great Weight with me, that I dare not venture to affirm or determine any thing on this Head. 'Tis certain the Figure that *Clusius*, and others after him give us, does by no means agree to the *Polium Monspeliacum*.

6. *Polium montanum, repens*. *C. B. Pin.* 221. *Creeping Poley-mountain*. *Polium montanum, supinum minimum*. *Lob. Icon.* 488.

It scarce rises above two Inches high, with very small little Branches, on which, no less than on the former Species, grow Leaves in Order and opposite to one another, but harder, shorter and narrower, and not dented about the Edges. On the Branches sit Flowers in Threes or Fours, resembling in Shape the Flowers of *Lavender-leav'd Poley-mountain*, but smaller. I could not observe the Seed of it. The Root is fibrous and lively in its native Soil. But this Plant is not valuable

valuable for any agreeable Smell. It flowers late, viz. in June. *Clus.*

7. *Polium maritimum, erectum, Monspeliacum. C. B. Pin. 221.* Upright maritime Poley mountain of Montpellier. *Polium Monspellanum. J. B. 3. 299.*

The Leaves are narrow, oblong, dented, white, woolly, of an acrid and bitter Taste, stretching along upon round hoary Stalks, nine Inches or a Palm high, from a ligneous Root with a few Fibres. The Heads are wound up like a Clue, white, woolly or flocky, and consist of oblong Flower-cups, out of which peep gaping white Flowers. The Smell of the whole Plant is agreeable, tho' *Matthiolus* says it is quick and a little sinking.

It grows in Italy and the South of France, especially on the Sea-shore, in great Plenty; and flowers in the Summer. When it is cultivated, says *F. Bauhinus*, it degenerates very much, becomes less white, and the Leaves grow larger.

8. *Polium maritimum, supinum, Venerum. C. B. Pin. 221.* Creeping, maritime, Venetian Poley mountain. *Polium Venetum. J. B. 3. 300. Adv. 207.*

This is a very tender Plant, with slender Branches nine Inches high, creeping upon the Ground, overlaid with much white Down, which shoot down Roots into the Ground from the Joints. The Leaves are of a middle Size, betwixt the *terrium* and *quartum* Genus of *Clusius*, but shorter, dented, very woolly, and is the Cause that no Vestiges of Teeth are to be seen in the tender Leaves, but by the curious and nice Observers. The Heads are much smaller than in the former Species, and wholly woolly, whereon grows the purple Flower. This seems to be the same Species with the following, which is the fifth of *Clusius*; and Mr. Ray is of Opinion, that this is only an accidental Variety of the sixth of *Clusius* with a white Flower: Since the only Difference that *Clusius* himself could observe betwixt them, was the Tenderness of the Plant, and the Variety of the Flower. For both Species are scarce any thing else but Flox, and exceed all the rest in the Sweetness of their Smell.

Clusius found both of them laden with Flowers in the Month of March; nor could he have perceived any Difference, unless the

Colour of the Flower had given him an Occasion of comparing each Plant with Accuracy and Diligence.

9. *Polium candidum, tenellum, tomentosum, flore purpureo. F. B. 3. 300.* White, tender, woolly Poley mountain, with a purple Flower. *Polium montanum quintum, purpureo flore. Clus. Hist. 362.*

10. *Polium montanum, supinum, alterum. C. B. Pin. 221.* Another creeping Poley mountain. *Polium vium albo flore. Clus. Hist. 362.* *Polium candidum, tenellum, tomentosum, flore albo. J. B. 3. 300.*

11. *Polium Pyrenaicum, supinum, Hederæ terrestris folio. Creeping Pyrenean Poley mountain, with a Ground-Ivy Leaf. An Chamædryis montis Sumani? J. B. 3. 289.*

The Leaves resemble the Leaves of *Alyssum Galeni* in Shape and Make, and the Flowers are collected in Heaps upon the Tops of the Stalks and Branches.

12. *Polium Hispanicum, Chamædryos folio, purpurascens flore. Spanish Poley, with a Germander Leaf, and a purplish Flower. Polium saxatile, Chamædryos rotundo folio, supinum, rubrum. Barr. Icon. Polium saxatile Chamædryoides, rotundo folio, flore rubello. Bocc. Mus. Part 2. 76. Tab. 62.*

13. *Polium Lusitanicum, supinum, minus, incanum, caulibus purpurascens, flore albo. Creeping, not quite so hoary, Portuguese Poley, with purplish Stalks, and a white Flower.*

14. *Polium Hispanicum, latifolium, capitulo breviori, purpurascens flore. Broad-leav'd Spanish Poley, with a pretty short Head, and a purplish Flower.*

15. *Polium Hispanicum, maximum, album. The greatest white, Spanish Poley.*

16. *Polium Hispanicum, maximum, luteum. The greatest yellow, Spanish Poley.*

17. *Polium Hispanicum, maritimum, Rorismarini folio, flore albo. Spanish, maritime Poley, with a Rosemary Leaf, and a white Flower.*

18. *Polium Hispanicum, maritimum, frutescens, Rorismarini folio, flore rubro. Spanish, maritime, frutescent Poley, with a Rosemary Leaf, and a red Flower. Polium maritimum, majus, erectum, Rorismarini folio, flore rubro. Barr. Icon.*

19. *Polium Hispanicum, montanum, pumilum, Rorismarini folio, flore rubro.* Spanish Dwarf Poley mountain, with a Rosemary Leaf, and a red flower. *Polium montanum, pumilum, rubrum, viridi Stæchadis folio, caule tomentoso.* Barr. Icon.

20. *Polium Hispanicum, supinum, flore flavescente.* Creeping Spanish Poley, with a yellowish flower.

21. *Polium Hispanicum, longiore capitulo, flore vario.* Spanish Poley, with a longish Head, and a variegated flower.

22. *Polium erectum, tenuifolium, flore albo, capitulo breviori.* Upright, small-leav'd Poley, with a white flower, and a short Head.

23. *Polium Hispanicum, Linariæ foliis canescentibus, flore albo.* Spanish Poley, with whitish Toad-star Leaves, and a white flower. *Polium montanum, album, non serratum, longis angustisque foliis canescentibus.* Barr. Icon.

24. *Polium Hispanicum, Linariæ foliis brevioribus, flore albo.* Spanish Poley, with Toad-star Leaves, but shorter, and a white flower. *Polium montanum, album, non serratum, viride, longis angustisque foliis, caule incano.* Barr. Icon.

25. *Polium montanum, pumilum, rubrum, angusto viridique folio, caule incano.* Barr. Icon. Dwarf red Poley mountain, with a narrow green Leaf, and a hoary Stalk.

26. *Polium surrectum, minus, angustifolium, serratum, & viridi canescens.* Barr. Icon. Small upright, narrow-leav'd dented Poley, of a whitish green Colour.

27. *Polium montanum, album, angustifolium, serratum, supinum, minus.* Barr. Icon. White, narrow-leav'd, dented, leaning, small Poley mountain.

This Plant has several slender, woolly Stalks a Palm high; at whose Joints come forth at Distances Leaves in Pairs, that are narrow and very small. Out of the Bosoms of these, others like them, but smaller, bud forth, which often remain after the first Fall. The Flowers, which are small and white, generally stand upon the Tops of the small Branches, which are divided into three Parts.

28. *Polium minus, erectum, angustis, crebris brevibus, foliis, flore rubro.* Barr. Icon.

Small upright Poley, with narrow, thick-set, short Leaves, and a red flower.

29. *Polium montanum, Gnaphaloides, incisum, flore rubro, supinum.* Barr. Icon. Leaning, dented Poley mountain, resembling Cudweed, with a red flower.

30. *Polium marinum, dasyphyllum, Gnaphalodes, flore albo.* Barr. Icon. Maritime Poley, resembling Cudweed, with a rough hairy Leaf, and a white flower.

This Plant has pretty broad, pointed Leaves, dented round the Edges, ranged upon upright Stalks at small Distances, and at first Sight, by their thick Flox, resembling the Leaves of common Cudweed. The white Flowers, which are smaller than the Flowers of the other Species, stand in their own proper Flower-cups, on the Tops of round Heads.

31. *Polium montanum, Hispanicum, non crenatum, flore albo.* Barr. Icon. Spanish, undented Poley mountain, with a white flower.

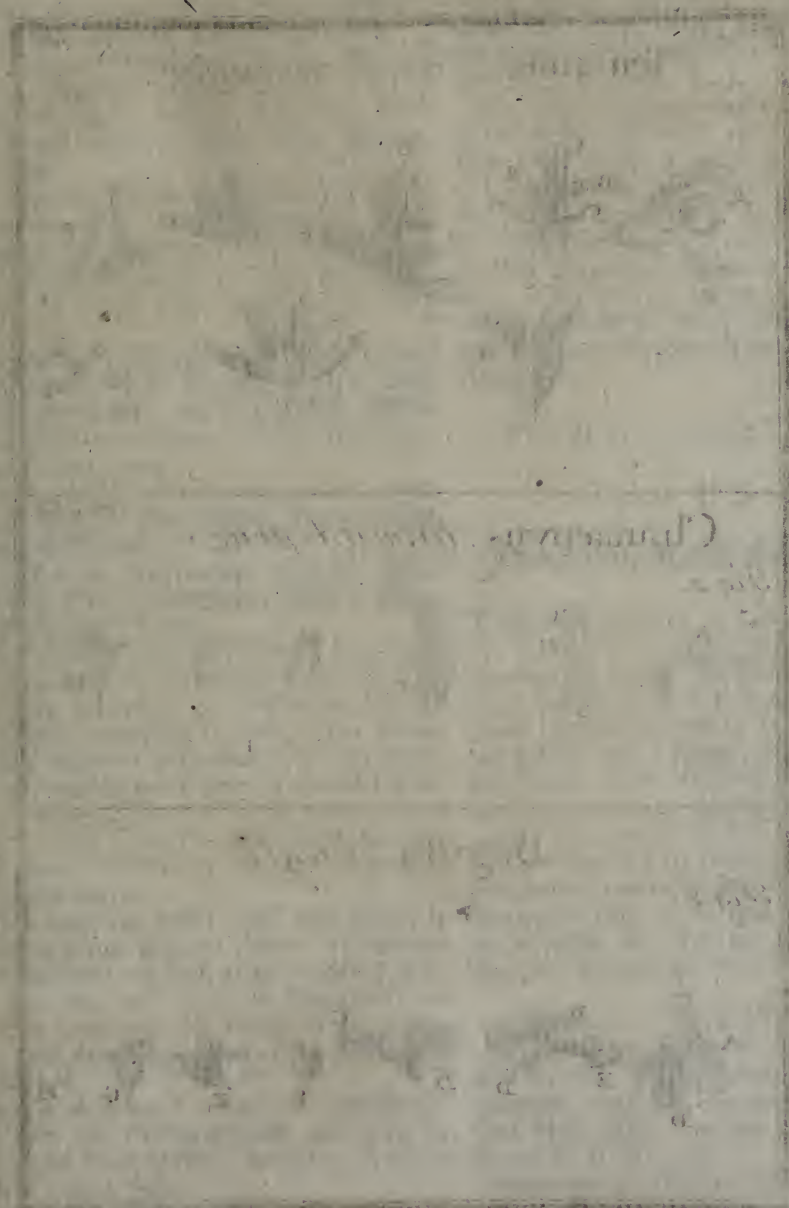
This Species rises with somewhat stiff and slender Stalks, that are clothed at the Joints with Leaves, narrow at the Bottom, and broad in the Middle, not dented, and growing opposite to one another. The Flowers, which are very many and small, stand in Clusters, upon the Tops of the small Branches.

32. *Polium montanum, album, serratum, latifolium, erectum, majus.* Barr. Icon. The greater white, dented, broad-leav'd, upright Poley mountain.

33. *Polium montanum, album, serratum, latifolium, supinum, majus.* Barr. Icon. The greater white, dented, broad-leav'd, creeping Poley mountain.

34. *Polium montanum, album, serratum, latifolium, supinum, minus.* Barr. Icon. The lesser white, dented, broad-leav'd, leaning Poley mountain.

The former of the two last has first Stalks lying upon the Ground, and shooting down Roots; then rise slender Stalks a Palm high, on which are set broad, hoary, and generally bending Leaves, opposite to one another, somewhat dented, and growing at some Distance from one another. The white Flowers grow like Clues upon round Heads.



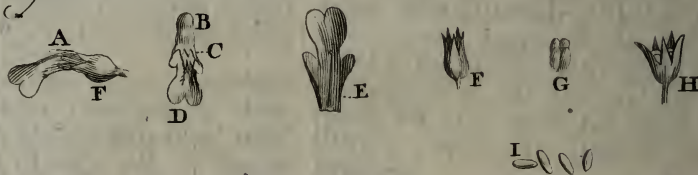
Teucrium. Tree-germander.

Fig. 1.



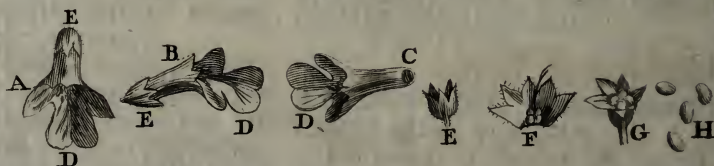
Chamaepestis. Ground-pine.

Fig. 2.



Bugula. Bugle.

Fig. 3.



The latter does not seem to differ from it in any other Respect but in the Size.

35. *Polium montanum*, luteum, dasyphyllum, serratum. Barr. Icon. Yellow, hairy-leav'd, dented Poley-mountain.

36. *Polium Hispanicum*, luteum, Majoranae folio. Spanish yellow Poley, with a Marjoram Leaf. *Polium montanum*, luteum, serratis Amaraci foliis, coma sublucea. Barr. Icon.

37. *Polium Hispanicum*, Serpylli folio, purpurascens flore. Spanish Poley, with a Mother of Thyme Leaf, and a purplish Flower. *Polium saxatile purpureum*, non serrato Serpylli folio, pressa coma. Barr. Icon.

38. *Polium Hispanicum*, Thymi folio, purpurascens coma. Spanish Poley, with a Thyme Leaf, and a purplish Bush. *Polium saxatile minimum*, Thymi folio, carneo flore. Barr. Icon.

39. *Polium Creticum*, maritimum, humifusum. Candy Sea Poley, lying along upon the Ground.

40. *Polium Smyrnaeum*, Scordii folio. Smyrna Poley-mountain, with a Water-Germander Leaf.

This Plant is call'd *Polium* by Reason of the Whiteness or Hoariness of its *Corymbi* or Heads, according to *Dioscorides*, but of its Leaves, according to *Pliny*: For *πολιος* signifies white or hoary; and in this Plant this is certainly more true of the Heads or Tops than of the Leaves, as *Pliny* would have it; tho' it must be allowed at the same time, that the Leaves are also somewhat white and hoary.

Poley-mountain being acrid and bitter, it provokes Urine and the Terms. It relieves the Dropsical, and such as are troubled with the Jaundice, and cures the Bitings of venomous Creatures. It enters as an Ingredient into the Composition of Theriack and Mithridate.

Sylvius reckons it among the Medicines that cure the Falling-sickness, and even in the second Rank of these, because it abounds with a volatile Salt.

Dioscorides tells us, that the Decoction of this Herb drunk warm, cures such as are bit by venomous Creatures, nay, that the Fumigation or Smoak of it drives them away, as doth likewise the Herb strewed or

laid in Chambers. And tho' it disturbs the Stomach, and raises some Pain in the Head, yet it cures such as are liable to Distempers of the Spleen, Jaundice, Dropsy, &c. It moves the Belly, brings down the Terms, and consolidates or folders, or closes the Lips of Cuts or Wounds. Park.

Mr. Lemery tells us, that the yellow Sort is the best, and most valued in Physick. This Plant yields a great deal of exalted Oil, and volatile Salt; the Tops are chiefly that which they call in Latin, *Coma Polii*, seu *Polium Comatum* or *Poley-bush*. They are opening, cephalick, sudorifick, and vulnerary: They provoke Urine and the Terms, resist Putrefaction, fortify the Brain, and expel malignant Vapours from the Head and Heart.

TABLE XCIX. Fig. 1.

GENUS III.

Teucrium, Tree-Germander.

Tree-Germander is a Plant with a labiated Flower of one single Leaf, whose *Stamina* A, supply the Place of an upper Lip; but the under Lip is divided into five Parts, the middle Part D, being the largest, and hollow like a Spoon; and the rest CC, BB, placed in the Neck of the Flower over against it. Out of the Bell-shap'd Flower-cup F, rises the Pointal G, fixed like a Nail into the hinder Part of the Flower E, and attended as it were by four Embryo's, which afterwards turn to so many Seeds I, that are roundish K, shut up in a Bell-shap'd Husk H, which before was the Flower-cup.

The Species of Tree-Germander are,

1. *Teucrium Boticum*. Clus. Hist. 229. f. B. 3. 291. Tree-Germander of Spain. *Teucrium fruticans*, *Boticum*, five tertium. Clus. Hist. 348. *Teucrium peregrinum*, folio sinuoso. C. B. Pin. 247.

Sometimes it rises as high as a Man, but is generally lower, with one Shoot about the Thickness of one's little Finger, covered with a whitish Bark, and divided into several Branches, that are hoary, and always grow in Couples opposite to one another. The Leaves

Leaves are somewhat larger than the *Teucrium Creticum*, somewhat notch'd round the Edges, all over hoary on the Out-side, but on the In-side of a dark green Colour, but not shining like the Leaves of the *Teucrium vulgare*, and of a very bitter Taste. The Flower is white, with Lips sticking out below, but no Crest or Casque standing up above, with several oblong *Stamina* or Hairs rising out of the Middle of the Flower. It is always green like the *Teucrium vulgare*.

I have found it in many Parts of *Sicily*, viz. near *Syracuse*, where it rises to a very great Height, and grows like a Shrub, with very thick-set, and many Rods and Branches, in a small Island at the *Promontorium Pachynum*, now *Cape Passaro*; about the Castle of *Puzallu*, and elsewhere. D. *Willoughby* shew'd me one which he light upon himself in his Way from *Naples* to *Rome*. *Clusius* found it among other Shrubs on the Hills about *Calpe* near *Gibraltar*, and along the Sea-coast of *Andalusia* in Hedges. *Ray*.

2. *Teucrium Hispanicum*, latiore folio. Spanish Tree-Germander, with a broader Leaf.

3. *Teucrium Americanum*, *Halicacabos*, & *alopecuroides*. *Plum.* American Tree-Germander, like Winter Cherry, and Forstail.

4. *Teucrium supinum*, perenne, foliis lacinatis. Leaning, perennial Tree-Germander, with jagged Leaves. *Chamaedrys spuria*, multifido folio, *Lamii flore*. C. B. Pin. 250. *Pseudo-Chamaepitys*. *Clus. Hist.* 185.

This is the *Chamaepitys adulterina*, sive *Pseudo-Chamaepitys* of *Parkinson*.

It is a very small Plant, and very like *Ajuga*, both in its Stalks, and in the Make of its Leaves, which are cut in three, being all over rough and hairy, of a saltish Taste, and without Smell, if it did not smell somewhat unpleasant and herby. The Leaves come forth on the top Branches out of their Wings, not unlike the Leaves of *Ajuga*, but that they are larger and white. These are followed by four Seeds in each Flower-cup or Bag, of an Ash Colour, pretty large and almost quite round. The Root is pretty thick, whitish and perennial, so far as I could learn. *Clus.*

It grows in *Spain* in uncultivated Ground, and bears Flowers in the Summer.

5. *Teucrium supinum*, annuum, *Lustranicum*, foliis lacinatis. Leaning, annual, Portuguese Tree-Germander, with jagged Leaves.

TABLE XCIX. Fig. 2.

GENUS IV.

Chamaepitys, Ground-pine.

Ground-pine is a Plant with a Flower of one single Leaf, and with one Lip D, divided into three Parts, the middle Part being split in two, and the little Teeth C, supplying the Place of the upper Lip. Out of the Bottom of the Flower B, rises the Pointal E, attended as it were by four Embry's, which afterwards turn to so many Seeds G, which are oblong I, shut up in the Husk H, which before was the Flower-cup F. To these Marks must be added, That the Flowers of *Ground-pine* grow scattering in the Wings of the Leaves, and not in the Fashion of *Wherles*.

The Species of *Ground-pine* are,

1. *Chamaepitys moschata*, foliis serratis; an prima *Dioscoridis*? C. B. Pin. 249. Musk *Ground-pine*, with jagged Leaves, perhaps the first Species described by *Dioscorides*. *Chamaepitys* sive *Iva moschata* *Mor-speliensium*. J. B. 3. 296. *Chamaepitys spuria* prior, sive *Anthyllis altera*. *Dod. Pempt.* 47.

From a long thick Root it shoots up a great many hairy, ligneous Stalks, a Palm or nine Inches high, along which are stretched thick-set, hairy whitish Leaves, about two or three Inches long, scarce half an Inch broad, narrower on that Part where they adhere to the Stalk, having one or two Knobs or Bumps about the Middle, like *Buckshorn Plantain*, sometimes entire quite round, and like to one another, with one Rib running lengthwise. The Flowers are pretty large, purplish; hairy, and gape with a broad Yawn or Opening. The Seed is black, crumpled, longish, somewhat crooked like a Worm, in downy Bags or Husks.

2. *Chamaepitys moschata*, foliis serratis; flore albo. H. R. Par. Musk *Ground-pine*, with jagged Leaves, and a white Flower.

3. Cha-

3. *Chamaepitys moschata*, foliis serratis, flore lateo. Musk Ground-pine, with dented Leaves, and a yellow Flower.

4. *Chamaepitys lutea*, vulgaris, five folio trifido. C. B. Pin. 249. Common yellow Ground-pine, or Ground-pine with a Leaf split in three. *Chamaepitys vulgaris*, odorata, flore luteo. J. B. 3. 295. *Ajuga*, five *Chamaepitys mas Dioscoridi*. Lob. Icon. 382. This is the *Chamaepitys vulgaris* of Parkinson. Common Ground-pine.

This is a little low Plant, not exceeding a Palm in Height, and sometimes not above one or two Inches, with a pretty long, single and hard Root. The little Stalk is taper, hairy, and reddish towards the Root, otherwise of a Colour betwixt herby and yellow, as are the Leaves, which grow in Couples at the Knots opposite to one another, at small Distances, resembling the Foot of a Bird, or a three-grain'd Fork, both in Taste and Smell like Pitch or Rosin; out of whose Wings spring forth yellow Flowers, with a broad Lip cut in two, stain'd with little red Spots on the upper Side; instead of a Crest or Casque, they thrust forth faint purplish Stamina, to which succeed four triangular Seeds in each Flower-cup, as in the other whorl'd Plants. The Tube or Pipe of the Flower swells to a Belly, and supplies the Place of a Seed-vessel.

It very rarely grows any where in England, unless sometimes on fallow Ground.

5. *Chamaepitys vulgaris*, folio trifido, flore roseo, Lusitanica. Portuguese common Ground-pine, with a Leaf cut in three, and a Rosey Flower. *Ajuga multifidis foliis* & *rubescence flore*. Clus. Hist. 184.

6. *Chamaepitys Chia*, lutea, folio trifido, flore magno. Yellow Ground-pine of Chios, with a Leaf cut in three, and a large Flower.

7. *Chamaepitys orientalis*, Salicis folio. Oriental Ground-pine, with a Willow Leaf.

Chamaepitys is a compound Greek Word, which signifies Low or Ground-Pine, which is so called because of the Similitude or Likeness of the Leaves; or Low Pitch-tree, because the Leaves smell like Pitch. The Latins called it *Ajuga* or *Abiga*, quod *fatum abigat* & *abortum faciat*, because it

expells the *Fetus*, and causes Abortion. Some call it *Iva arthritica*, because it is proper for the Diseases of the Joints and Nerves.

Of all the several Species of Ground-pines the 4th or common Ground-pine is generally the only one used in Shops. It strengthens the Nerves: It warms, dries, cuts, is diuretick, and emmenagogick, or provokes and brings down the Terms, and is of great Service in all the Diseases of the Joints. It expells the dead *Fetus*, and the Afterbirth, and operates so powerfully, that the Use of it is forbid wholly to such as are with child, because it causes Miscarriage. But the Decoction of the Herb in Wine, or the Powder of it with *Hermodactyls* and *Venice Turpentine* made into Pills, is very highly esteemed in the Sciatica, and all Diseases of the Joints. The same Pills are said to be very good against a Dropsy, continuing the Use of them for some Time. N. B. J. Bauhinus advises to abstain from *Hermodactyls*.

The Decoction of Ground-pine wonderfully conduces to cure the Strangury and stopping of the Urine, or any inward Pains arising from those Diseases of the Reins and Bladder; and is particularly good against all Obstructions of the Spleen and Liver, for it cleanses the gross impure Blood, and expells that which is congealed, and gently opens; to which Purpose they were wont in former Times, to make Pills of the Powder and the Pulp of Figgs. The Pills made of the Powder of Ground-pine, and of *Hermodactyls* with *Venice Turpentine*, is an excellent Remedy for the Jaundice. It likewise removes all Distempers of the Brain proceeding from cold and phlegmatick Humours and Destillations, as also the Falling-sickness. It is a special Antidote against the Poisons of all the *Aconites* in general, and other poisonous Herbs, as also against the Venom of Scorpions and other poisonous Creatures. *Mathiolus* commends the Conserve of the Flowers much against the Palsy. The green Herb or the Decoction of it applied, dissolves the Hardness of Womens Breasts, and all other hard Tumours in any other Part of the Body. In like manner the green Herb, or the Juice of it mixed with Honey, not only cleanses putrid and stinking, malignant and virulent Ulcers and Sores of all Sorts, but heals and

conglutinates the Lips of Green Wounds, in any Part of the Body.

Matthiolus commends certain Pills against the Palfy, which are made in this Manner: Take, says he, of *Ground-pine*, *Stachas*, *Betony*, and *Rosmary* Flowers, of each one Dram; of *Turkish* one Dram and a half, of *Agarick* two Drams, of *Coloquintida* half a Dram, of *Ginger* and *Sal Gemm* of each ten Grains, of *Rhubarb* one Dram and a half, of *Spikenard* seven Grains, of the Powder called *Hiera picra simplex* half an Ounce, and of *Diagridium* one Dram. Let all these be made up into a Mass according to Art, with the Juice of *Ground-pine*, (but I would, and think it more convenient, says *Parkinson*, and I am sure more durable, that it be made up into a Mass with a Syrup made of Honey or Sugar, and the Juice of the Herb.) for so they will not so soon become dry or hard; of a Dram of this let nine Pills be made, and three of these be taken by those that are paralytick, every Night when they go to Bed; and this, says he, will give a sure and speedy Relief.

This Plant, says *Mr. Tournefort*, is bitter and aromattick, and reddens blue Paper a little, which gives Ground to suppose that it contains a volatile, aromattick, oily Salt, impregnated with a good deal of Sulphur and Earth: For by a Chymical Analysis, *Ground-pine* yields several acid Liquors, a little urinous Spirit, Abundance of Oil, and yet more Earth. And therefore it is not at all surprizing, that this Plant restores the ordinary Course and Circulation of the Spirits and Liquors in the Nerves and capillary Vessels; and for this Reason it is very proper in all Distempers in which the System of the Nerves is affected. It is diuretick, provokes the Terms, and dissipates the Humours that cause the Gout: For this End is prescribed the Infusion of it in Wine, and a Pisan of it with *Germander*. The Juice of *Ground-pine* is used for the Arthritick Pills of *Nicolaus Salernitanus*; but since they are too compound, it is better to keep to those of *Matthiolus* described above.

TABLE XCIX. Fig. 3.

GENUS V.

Bugula, Bugle.

Bugle is a Plant with a Flower of one single Leaf A, with one Lip divided into three Parts, of which the Middle D, is split in two, the little Teeth B, supply the Place of an upper Lip. Out of the Flower-cup E, rises the Pointal F, fix'd like a Nail into the hinder Part of the Flower C, and attended as it were by four Embryo's, which afterwards turn to so many oblong Seeds H, shut up in a Husk G, which before was the Flower-cup. To these Marks must be added, that the Flowers of *Bugle* are rang'd Wherle-fashion.

The Species of *Bugle* are,

1. *Bugula*. *Dod. Pempt.* 135. *Bugle*. *Consolida media, pratensis, caerulea*. C. B. Pin. 260. *Consolida media, quibusdam Bugula*. J. B. 3. 430. This is the *Consolida vulgaris*; *flore caeruleo* of *Parkinson*.

This Plant rises with a square, naked, hairy Stalk, somewhat like *Blue-bottle*, a Palm or half a Foot high. The Leaves resemble those of the greater *Water-Pimpernel*, and are somewhat dented, growing in Couples opposite to one another, at Distances, and are either of a violet, purplish, or green Colour; of a sweetish Taste at first Chewing, but presently bitterish and astringent; the lower ones with pretty long Foot-stalks resembling the *Daisy*; and having Tendrels that spread far and wide. The Flowers out of the Wings of the Leaves stand in sessile, short, hairy, *Blue-bottle* Flower-cups that are divided into five Segments, and are of a changeable blue Colour, with a Lip resembling the *Orchis*, cut into four Segments, of which the two lateral ones are the longest, and the two lower ones shorter, but somewhat broader, having no Crest or Wings like the *Orchis* and the *Lamium*, but a Pointal and Chives like *Blue-bottle*, tasting like Honey, if you suck that End by which they adhere to the Flower-cup. The Root, which

is small and fibrous, is more astringent to the Taste than the Leaves. Thus far *F. Bauhinus*.

To this add, That the Stalk of this Plant is not rough and hairy on all Sides, but only on the two opposite Sides, and that alternately at each Joint, as happens likewise in the Leaves. To each Flower succeed four Seeds joined together in the Bottom of the Flower-cup, as in the rest of this Genus. The Whorles of the Flowers, if carefully look'd at, resemble a sort of a Spike. *F. Reneaume* calls this Plant *Dissocaulos*, because it has two Sorts of Stalks; the one Sort small, taper, creeping upon the Ground, by which it propagates it self, and the other upright, square, and bearing Flowers.

It varies with a blue, fresh-colour'd, and white Flower.

It grows very common in moist Woods, Forests, and Meadows, and flowers with us in the Month of May.

2. *Bugula flore cinereo vel albo*. Bugle with a white or ash-colour'd Flower. *Consolida media, pratensis, cinerea vel alba*. C. B. Pin. 260.

3. *Bugula alpina, maxima*. The greatest Bugle of the Alps.

4. *Bugula sylvestris, villosa, flore cæruleo*. Hairy, Wood Bugle, with a blue Flower. *Consolida media, Genevensis*. J. B. 3. 432. *Consolida media, pratensis, hirsuta*. H. R. Par.

From a fibrous Root rises a square, channel'd, somewhat hairy, and naked Stalk; which is begirt with narrow Leaves three Inches long, dented round the Edges, somewhat hairy, and standing upon oblong Foot-stalks. The Flowers are crested and blue, out of the Middle of which rise several Filaments or Threads, and are as it were collected into a Spike.

I am of Opinion that this is the same Species with the *Consolida media Genevensis*, which I saw growing very common both about Geneva and Basil. It differs from the common Sort, in having several upright Stalks rising from the Root; in its smaller, more oblong Leaves, and in the upper Leaves being more deeply notch'd, and in its wanting Tendrils. Ray.

5. *Bugula sylvestris, villosa, flore suave-rubente*. Hairy, Wood Bugle, with a

charming red Flower. *Consolida media Genevensis, flore rubello*. J. B. 3. 432.

This Bugle does not differ much from the former, but that it is a more tender Plant, soft and smooth to the Touch, nor rising quite so high as the former; and that the Flowers are of a fine red blush Colour.

6. *Bugula sylvestris, villosa, flore albo*. Hairy, Wood Bugle, with a white Flower. *Consolida media Genevensis, flore albo*. J. B. 3. 432.

This white-flower'd Bugle differs neither in Form nor Size from the common Bugle; but its Leaves and Stalks are always green, and never brown like the other, and the Flowers very white.

7. *Bugula Samia, verna, Borraginis folio, flore inverso, è cæruleo flavescente*. Samian Spring Bugle, with a Borrage Leaf, and an inverted Flower, of a yellowish blue Colour.

8. *Bugula orientalis, villosa, flore inverso, cæruleo, alba macula notato*. Oriental hairy Bugle, with an inverted blue Flower, marked with a white Strain.

9. *Bugula orientalis, villosa, flore inverso, candido, cum oris purpureis*. Oriental hairy Bugle, with an inverted white Flower, and purple Edges.

10. *Bugula orientalis, flore ex violaceo purpurascente*. Oriental Bugle, with a purplish Violet-colour'd Flower.

11. *Bugula orientalis, longifolia, flore majore, intenso cæruleo*. Oriental long-leav'd Bugle, with a larger Flower, of a bright blue Colour.

Bugula is of French Original; for this Plant is called Bugle by the French.

It agrees in Vertues with *Self-heal*; and is vulnerary, used both internally and externally. It is good in the Jaundice, Obstruction of the Liver, Retention of the Urine, Ruptures, &c. So that as it resembles *Self-heal* in Figure and Shape, so likewise in Qualities. From whence it enters as an Ingredient into the vulnerary Decoctions of the Surgeons, and is commended, externally applied, to the Venereal Ulcers of the secret Parts.

It is a common Proverb in France, That whoever has Bugle and *Sanicle*, has no Occasion for a Surgeon. Bugle is recommended for Ruptures, Fractures, Convulsions, and

Bruises; and therefore is added in vulnerary Potions, in which it is said to have so much Power, that it dissolves and discusses congealed and clotted Blood. It is look'd upon as a present Remedy for the *Aphthæ* and creeping Ulcers in the Mouth.

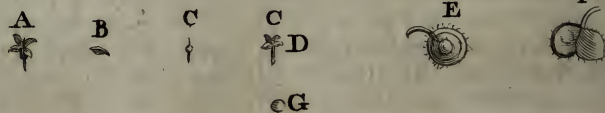
The Decoction of the Leaves and Flowers in Wine is effectual for all inward Wounds, Thrusts or Stabs in the Body or Bowels, for such as are Liver-grown, as they call it, whose inward Grievs and Pains arise from the Obstructions of the Liver and Gall, and for strengthening the Parts afterwards. Either the Leaves bruised and applied, or the Juice used to wash and bathe the Parts, is a wonderful Remedy for all Manner of Ulcers or Sores, whether they be new and fresh, or old and inveterate, nay, for Fistula's and Gangrenes; and the same made into a Lotion, with some Honey of *Roses* and Allom, cures all Sores of the Mouth

and Gums. *Parkinson* recommends to all good and charitable Ladies, an Ointment made of the Leaves of *Bugle*, *Scabious* and *Sanicle* bruised and boiled in Hogs-lard, till the Herbs be dry, and then strained and kept in a Pot, as an excellent Remedy for all Sorts of Ulcers, Contusions and Wounds.

Bugle, says Mr. *Tournefort*, is bitter, deterfive, and reddens blue Paper a little: It is used in vulnerary Potions, Ptisans, and Apozems which are prescribed for Spitting of Blood, for the Bloody-flux, for the Whites, for the Distempers of the Throat, for Ulcers, and for the Sores and Inflammation of the Mouth. The clarified Juice of *Bugle* has the same Vertues; it is used in Plaisters. This Plant is likewise aperitive and diuretick: *Camerarius* and *Dodonæus* prescribe it in the Obstructions of the Liver. It contains *Sal ammoniack* wrapt up in *Sulphur*.

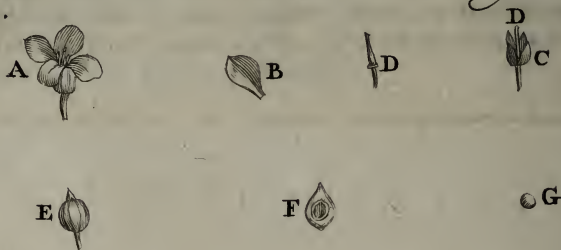
Lonthlaspi. Treacle-mustard.

Fig. 2.



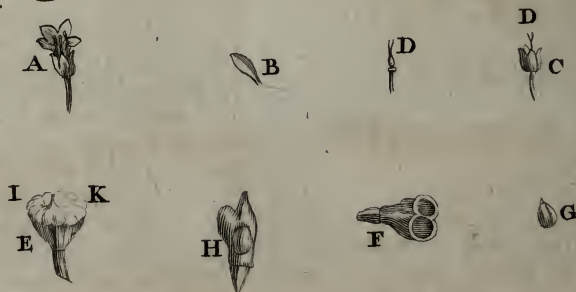
Rapistrum. Charlock or Wild-mustard.

Fig. 2.



Myagrurn. Gold of Pleasure.

Fig. 3.



The Fifth C L A S S.

Of Herbs and Under-shrubs,

With a Polypetalous Flower in the Form of a Cross.

THE *Flos Cruciformis*, or Flower in Form of a Cross, is a Flower that is always compos'd of four Leaves, and in some Sort resembles a Cross: Such as is the Flower of *Stock-gilly-flower*, *Rocket*,

Colewort, &c. And the Flower-cup of this Flower, if it has any, is generally furnish'd with four Leaves, commonly plac'd in the same Order as the Leaves of the Flower. But the Pointal always turns to a Fruit.

S E C T. I.

Of Herbs with a Flower in Form of a Cross, whose Pointal turns to a Fruit, consisting only of one Box or Chest, and not husky.

TABLE C. Fig. 1.

GENUS I.

Jonthlaspi, Treacle-mustard.

Jonthlaspi is a Plant with a Flower in Form of a Cross A, consisting of four Leaves B: Out of whose Flower-cup D, rises the Pointal C, which afterwards turns to Fruit, having but one Chest, flat, round, shap'd like a Buckler; in which is contain'd a round Seed F, which is likewise flat.

The Species of this Plant are,

1. *Jonthlaspi luteo flore, incanum, montanum, discoides.* Col. Part 1. 280. Hoary, mountain Treacle-mustard, with a yel-

low Flower. *Tblaspi saxatile, incanum, luteum, Serpilli folio, minus.* C. B. Pin. 107. This is the *Tblaspi montanum luteum minus* of Parkinson.

It grows up with small, rough, narrow, oblong Leaves, in the Form and Figure of the Plant drawn by *Marthiolus* for the *Alysson*, but smaller by one half, about round, purple Tendrels or Shoots, lying along upon the Ground, and overlaid with a white rough Hairiness; on the Top of which stand sweet-smelling Flowers, which are large in Proportion to the Plant, and dispos'd along the Tendrels, not in an Umbell, but in a long Corymbus in a Circle, being of a yellow Colour, or a bright golden Colour; and the Leaves whole, in the Shape of a Heart; to which succeed the Fruit at Bottom, likewise adhering alternately so long,

long Foot-stalks in a Circle round the Tendrels, of a round Figure, about the Bigness of a Lentil, being rough with a hoary Down, having a long Chive, and containing one flat yellow Seed.

It is to be seen very common upon the Mountains near the *Tiber*, flowering in the Months of *May* and *June*, and loves the smooth and even Tops of Hills.

The Leaves are hard and as it were without Juice, having a dry herby Taste; nor do they seem to have any Acrimony, no more than the Seeds. After the Flowers are fallen, it grows again afresh from the same Root, and never dies.

2. *Jonthlaspi minimum, spicatum, lunatum. Col. Part 1. 284.* The smallest spiked pecked Treacle-mustard. *Tblaspi Clypeatum, serpilli folio. C. B. Pin. 107. Lunaria peltata, minima quibusdam, ad Tblaspi referenda. J. B. 2. 935.*

3. *Jonthlaspi orientale, fructu echinato.* Oriental Treacle-mustard, with a prickly Fruit.

The Root of this Plant is small, slender and whitish, and is sometimes found divided into Fibres. It sends up small rough Tendrels, nine Inches high at most, leaning, and sometimes upright, but then the Plant has but one Stalk. The Stalks are encompassed with Leaves rang'd alternately, whitish, very small, one half smaller than the Leaves of the *Thymum durum dictum, asperifolium*, and sometimes looking all one Way. From the Middle of the Tendrels (which are covered over with rough and whitish Hair) to the very Top hangs round, cartilaginous Fruit, about the Bigness of a Lentil, flat, and rang'd into a long Spike; and commonly hanging all one Way from small crooked Foot-stalks, having a Flower-cup divided into four Segments, that can hardly be seen for Smallness. It has always small Flowers at Top very thick-set as it were in an Umbell, which immediately bring forth small, round, hairy Bags in the Middle, pretty big-belly'd, encompassed with a Selvidge, and as it were split at Bottom like *Tblaspi*. When they come forth they look of the Colour of Straw, and fall off about the End of *May*; having one only Seed within, of an oval Figure, that is flat, yellow or red.

It grows in the Bottoms of Mountains, and on the barren Hills lying to the East of *Anvers*, about the End of *April* or Beginning of *May*. I have gathered it about *Montpelier*; and *Gherler* in the Fields about *Nismes*. *Ray*.

This Plant has the same Vertues with the common *Tblaspi*, and yields a great deal of volatile Salt, and essential Oil. We chuse the fairest Seed, which is most biting and piquant to the Taste, like *Mustard*. It is used in the Composition of several Medicines, and is cutting, attenuating, detensive, aperitive, proper to provoke Urine and the Terms, to hasten the Birth, and to bring away the After-birth, and is very proper to break inward Impostumes.

It is particularly recommended for the Cure of the *Sciatica*, dissolving of the Stone and grumous Blood; if given in Powder, from half a Scruple to two Scruples in the Morning fasting.

TABLE C. Fig. 2.

GENUS II.

Rapistrum, Charlock or Wild-mustard.

Charlock is a Plant with a Flower in the Form of a Cross A, consisting of four Leaves B: Out of whose Flower-cup C, rises the Pointal D, which afterwards turns to a Fruit or globular Husk E, with one Capsula or Chest F, furnish'd with one single Seed G.

The Species of Charlock are,

1. *Rapistrum monospermum. C. B. Pin. 95.*
- Charlock with one Seed. *Prodr. 37. J. B. 3. 845.*

The lower Leaves of this *Charlock* are somewhat large, thick and hairy, of a very fresh green Colour, ragged on both Edges, at the Bottom, but broader at the Ends, where they are only wav'd: The Stalks also are a little hairy, about a Foot high or more, set with a few such Leaves as the lowest, but smaller, and branching forth into long Spikes of golden yellow Flowers the Length of one's Hand, in whose Room come

come small round strip'd Heads or Husks, with a small Point at the End, containing in each of them but one Seed, from whence it took its Name. The Root is long and white, and somewhat fibrous,

2. *Rapistrum maximum, rotundifolium, monospermon.* Corn. 147. The greatest round-leav'd Charlock, with one Seed.

The Spanish Kind differs from the former French or Dutch Sort set forth by *Baubinus*, in that it grows higher, with larger Leaves divided into Parts, the End large, round and hairy; the Branches more numerous, the Flowers large and white in yellowish Husks, without any *Stamina* or Threads in the Middle: The Seed also rounder, and not pointed at the End.

3. *Rapistrum arvense, folio auriculato, acuto.* Field Charlock, with a sharp auriculated Leaf. *Myagro similis siliqua rotunda.* C. B. Pin. 109. Prodr. 52. *Myagro affinis herba, capitulis rotundis.* J. B. 2. 895.

4. *Rapistrum orientale, Dentis leonis. folio, flore albo.* Oriental Charlock, with a Dendelion Leaf, and a white flower.

5. *Rapistrum orientale, Acanthi folio.* Oriental Charlock, with an Acanthus Leaf.

This Genus of Plants is as little used in Physick as the former, that is, not at all; and therefore we shall go on directly and without Delay to the following.

TABLE C. Fig. 3.

GENUS III.

Myagrum, Gold of Pleasure.

GOLD of Pleasure is a Plant with a Flower in Form of a Cross A, consisting of four Leaves B: Out of whose Flower-cup C, rises the Pointal D, which afterwards turns to a copped Fruit E, having but one Chest H, furnish'd with an oblong Seed G, and two empty Cells F, at the Point IK.

The Species of this Plant are,

1. *Myagrum monospermum, latifolium.* C. B. Pin. 109. Broad-leav'd, one grain'd

Gold of Pleasure. This is the *Myagrum monospermum majus* of *Parkinson*.

The Root is thick and white, but annual, and produces several Stalks a Cubit or a Cubit and a half high, grey, taper, smooth, firm, full of white Pith, hollow with many Wings, very much branch'd towards the Top, with very long Branches shooting out from the Stalk, and making almost right Angles with it. The Leaves are much like the uppermost Leaves of Garden Wood, but commonly jagged, especially the lower ones, and greyish like them, embracing the Stalks with their Wings or Finns, and of an oleaceous Taste. The Flowers are yellow, four-leav'd, much smaller than those of Colewort, and of the Size of the Hedge-mustard Flowers; they blow by Degrees, and not all at the same Time; for while some break forth out of the Flower-cup, others turn to Seed, which is single in each of the sharp-pointed Bags, which look upwards, and adhere close to the Stalks and Branches.

J. Baubinus observed it growing wild in the Fields betwixt *Dampierre* and *S. Maurice*. It flowers with us in the Month of June, and perishes from the very Root as soon as the Seed is ripe.

2. *Myagrum monospermum, minus.* C. B. Pin. 109. Prodr. 52. The smaller one-grain'd Gold of Pleasure. This is the *Myagro similis, flore albo* of *J. Baubinus*.

It sends up immediately from the Root many smooth Leaves, three Inches long, much resembling the Leaves of *Sciatica Cresses*, and somewhat jagged: Among which rise Stalks full of Pith, and hollow with Wings; which Stalks are encompassed by winged Leaves, that are as it were dented with small Teeth. The small white Flowers stand on the Tops of the Stalks, and are succeeded by roundish, pointed Seed-vessels, hanging at a long Foot-stalk, resembling the *Myagrum* with round Heads. The Root is small, long, white and single, or consists of a few Fibres.

J. Baubinus found this Plant betwixt *Benonia* and *Florence*. It is to be met with every where in the Corn Fields, with its Flowers and Heads, in the Months of May and June.

3. *Myagrū capitulis rotundis*. *J. B.* 2. 895. Round-podded Gold of Pleasure.

It produces many Stalks, says *J. Bauhinus*, from a single, ligneous Root: The Plants that were sown in my Garden, says *Ray*, produced but one Stalk from one Root; a Cubit and two Cubits high, says *J. Bauhinus*; such as grew in my Garden, says *Ray*, never exceeded a Cubit in Height; taper, brittle, hairy, branch'd immediately from the Root, with numerous Branches springing forth out of the Wings of the Leaves; along which grow very small pale Flowers, lesser than those of the common *Myagrū*, to which succeed, in a long Series alternately rang'd, small Heads, smaller than *Coriander*, adhering to small Foot-stalks, half an Inch long, shooting from the Stalk, black when ripe, ending in a small Point, from which are stretch'd to the very Foot-stalk four little Ribs, not at all winged. In each of those Heads is lodg'd a yellow, oleaginous Seed, that has no perceivable Taste. The Leaves are like those of the common *Myagrū*, but smaller, rough, of a dark green Colour, and somewhat succulent, being rang'd along the Stalks and Branches alternately, and encompassing them, without any Foot-stalks, and producing finny Wings on both Sides, of a viscid Taste, which is maukish and insipid, unless that there is a very little Acrimony, which is afterwards rasted and warms the Tongue: The lowermost Leaves stand upon long Foot-stalks, and are gently wav'd.

This is an annual Plant, and renews it self by the fall'n Seed.

This Genus seems to be called *Myagrū* from two Greek Words, viz. *μῦα* a Fly, and *αἰσπένω* to catch, as if you should say, a Plant that by its glutinous and clammy Moisture catches Flies; which yet is not exactly true of *Myagrū*.

The Oiliness of the Seed of *Myagrū*, says *Dioscorides*, serves to make smooth any Part of the Skin that is rugged. And *Galen* says, That the Seed being oily, has an emplastick or clammy Quality. *Pliny*, and *Ruellius* from him, says, That the Oil cures the Ulcers of the Mouth. The Oil of the Seed is in much Use in Germany and elsewhere, where they sow many Fields with it, and is used both for the poor Man's Table,

and for the rich Man's Lamp; and serves also, with a Ley made of Athes, to make Soap; for which Purposes it is most used.

TABLE CI. Fig. 1.

GENUS. IV.

Isatis, Woad.

Woad is a Plant with a Flower in Form of a Cross A, consisting of four Leaves B: Out of whose Flower-cup D, rises the Pointal C, which afterwards turns to a Fruit in the Shape of a Tongue E, flat at the Edge, gaping two Ways F G, having but one Crest or Box H, and generally furnish'd with an oblong Seed I.

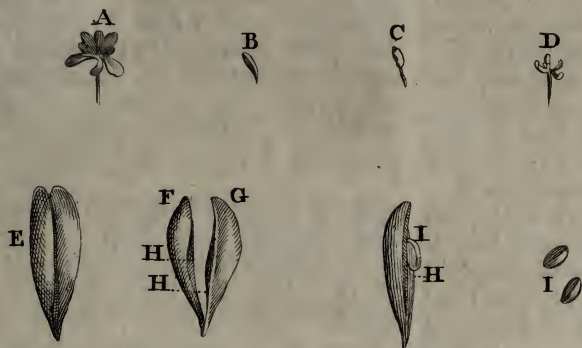
The Species of Woad are,

1. *Isatis sativa sive latifolia*. *C. B. Pin.* 113. *Isatis sive Glastrum sativum*. *J. B.* 2. 909. *Isatis sativa*. *Dod. Pempt.* 79. Garden or broad-leav'd Woad.

The Root of this Plant, says *J. Bauhinus*, which is an Inch thick, whitish and ligneous, shoots down into the Earth a Cubit or a Cubit and a half. It sends up Stalks about the Thickness of one's little Finger, two Cubits or a Yard high, stiff, taper, smooth, reddish, and very much branch'd at Top; cloathed with many Leaves that are rang'd in no Manner of Order. The Flowers stand on the Tops of the Branches, and are yellow, thick-set, small, composed of four longish, blunt and entire Leaves, with long slender Footstalks to support them. *J. Bauhinus* gives eight Leaves to the Flower; but those four which he calls lesser are the Leaves of the Flower-cup, not of the Flower. The Stamina are yellow, and small. The Seed-vessels when ripe are black, broad, blunt, resembling *Birds-tongue*, but smaller, with a Rib running along lengthwise, at which Part they open, and each of them contains one single yellow Seed. The lower Leaves do somewhat resemble *Hounds-tongue*, and are a little grey, oblong and smooth. But some of the first, says *J. Bauhinus*, are sometimes hairy, and likewise sometimes wav'd, resembling the Leaves of *Dames-violet*. Such

Isatis. Woad.

Fig. 1.



Crambe. a sort of Colewort.

Fig. 2.





as adhere to the Stalks and Branches without any intervening Foot-stalk, are furnish'd with feather'd Beards at Bottom, and are oblong, narrow, ending in a Point, grey and smooth; tho' some of the lowermost have some few Hairs upon them, especially on the under Side near the Edges, and at the middle Rib. Both the Stalks and the Leaves are cover'd with a Sort of Meal or Flower, which may be easily wip'd off. It produces Stalks and Flowers the second Year after it is sown; and after it has brought the Seed to Perfection, it withers to the very Root, and renews it self from the fall'n Seed.

It is sown in the Inland Country of *England*: And the wild Kind does not seem to differ from this but only in Culture.

2. *Isatis sylvestris vel angustifolia*. C. B. Pin. 113. Wild or narrow-leav'd *Woad*. *Isatis sine Glastum spontaneum*. I. B. 2. 909. *Isatis sylvestris*. Dod. Pempt. 79.

3. *Isatis orientalis, maritima, canescens*. Oriental, maritime, white *Woad*.

4. *Isatis orientalis, fructu ovato, canescente*. Oriental *Woad*, with an oval, whitish Fruit.

5. *Isatis orientalis, Lepidii folio*. Oriental *Woad*, with a Dittander Leaf.

6. *Isatis orientalis, foliis Brassicæ perforiatis, fructu cordiformi, canescente*. Oriental *Woad*, with the Leaves of perforiated Colewort, and a whitish Fruit in the Shape of a Heart.

7. *Isatis minor, Lusitanica*. H. L. Bat. App. The smaller Portuguese *Woad*.

Herman says, that it produc'd Leaves pretty much of the Size of the *Myagrum* Leaves, but somewhat larger; Stalks a Span high, branch'd, and slender; yellow, four-leav'd, small Flowers; flat, fungous Pods; resembling a Bird's Tongue, in the Middle of which was one yellow, oblong, acrimonious Seed, like all the rest of the Species.

Glastum was call'd by the *Latins*, *Vitrum*, according to the Joint Testimony of *Virruvius*, *Mela*, *Cesar*, and *Marcellus Empiricus*.

I am of Opinion, that it was for this Reason call'd *Vitrum* by the *Latins*, because this Word has the same Signification with the *Glass* of the ancient *Gauls* and *Britains*; and perhaps it was called *Glass* from its vitrious Colour.

Henry Crolach writ an entire Book concerning the Culture and Preparation of *Woad* for dying of Wooll. *Woad* very easily and very plentifully yields volatile Salt, by mere Fermentation, and without Fire, and is of excellent Use in the Quinsy and Scurvy. This Plant dyes much better than *Indigo*, which by the Mixture of Salt becomes corrosive.

It grows best in those Fields where *Flax* had been sown before; but if it should happen that it should not thrive well after succeeding such a Predecessor, then the Land must be well dung'd.

When either of these is done, the Earth must either be dug in order to Sowing, or it must be plow'd very deep, with a Plough drawn by four Oxen or Horses; but if you had rather make use of a common Plough, you must proceed slowly, because it wants Delay.

The Ground which is plow'd in *Autumn*, must be left all *Winter* to be soak'd by the Rain, 'till the Purification of our Lady.

It is indifferent whether the Seed be new or old, provided it be not damag'd by Smoak, which must be carefully avoided.

After *Lady-day*, when the Air is somewhat softer and milder, it is proper to sow it; and your End will be better answer'd if you sprinkle a little Snow over it, and take Care that you do not sow it too thick.

When it has lain in the Ground one or two Days, (which Delay is not without a Meaning) then you must cover it, by harrowing the Ground very nicely: And after *Whitsuntide* you must weed all other Herbs from it.

After *St. John's Day*, in the Beginning of Harvest, it is ripe. When the outmost Leaves begin to turn yellow, or you apprehend it is going to flower, then you must cut it down with an Instrument made for that Purpose, and gather it into Heaps, and then carry it to be wash'd.

When the Washing is over, you must send it in Wheel-barrows to a proper Place, spread it thin, and turn and dry it. This *Marcor* or *Rotteneß*, if it be but small and superficial, brings profit to the Husbandman by encreasing the Bulk of his Commodity; but if it be compleatly enough, it is an Advantage to the Buyer, because then it is

better prepared. But if the Weather proves inconstant and unseasonable, so that it is sometimes dry'd, and sometimes water'd with Rains, this Herb, which ought to be preserv'd from all external Wet, runs the Hazard of being spoil'd, and, which is a Proof of this, of turning black, which often happens in one Night's Time.

When the superfluous Moisture is consumed and spent, it must be gather'd, and put into Hand-mills. After this Shaking, Squeezing, Comminution and Rubbing, such as is proper for succulent Herbs, it must be compacted into an oblong or round Heap, covering the upper Part to keep off the Rain, and making Vans about the Side, that so the remaining herby Corruption may be excluded during the Night.

When the Moisture is quite exhausted, it must be made up into large Balls, and brought to that Machine, and put into an open House to be dried; for the greatest Care must be taken to free it from all superfluous Moisture, for fear lest it should become quite rotten. It may be left in this Place as long as is convenient, or the Balls now gently dried, may either be brought home to your own Houses, or may be sold to the Merchants in Order to a further Preparation.

For those Balls, which you may see sold for a good deal of Money, being gathered in Heaps and laid upon a Loft or boarded Floor, grow warm by Degrees, and exhale an urinous volatile Salt, so much the sooner for the warm Air surrounding them in the Summer Time, and in Proportion to their Number. They not only fill the Place where they are, but oftentimes the whole House and the neighbouring Houses, with their Smell. At last the Heat encreases by pouring on Water, 'till they are reduc'd (not into Ashes, as some will have it, but) into a coarse Dust fit for the Dyers Use, which from hence is, by way of Excellency, call'd *Glastum*, or prepar'd *Woad*.

The second Crop that comes up is not so carefully and tenderly weeded as the first; but Sheep are put into the Field where it grows, that they eating the Grass and Weeds that grow amongst it may thereby purge and weed it; for they neither hurt it by eating of it, nor by trampling upon it; un-

less by the Carelessness of the Shepherd they stay longer amongst it than they ought.

Six Weeks after the first Harvest it is again cut down as the first was; and after six Weeks more there is a third Harvest, provided the Weather is favourable; tho' this is not so good as the former, both by Reason of the Insufficiency and Weakness of the Sun's Heat, and because the Season is not so proper to steep and wash it.

Next Year they sow Barley in the same Fields where the *Woad* grew. If you want Seed, you have only to leave Part of the third Harvest, or Crop, which towards the latter End of the Year will yield you Seed.

All these Particulars are taken from *Wederlinus*, Doctor of Physick and Professor in the University of *Jenna*.

Our Countrymen, says Mr. *Ray*, do not observe this Method in all Respects, in preparing of *Woad*; as I was inform'd by a Friend, whom I consulted in this Matter.

It is sown with us about the Beginning of *March*, on a fat Ground, that is warm and well dung'd; and is cut down about the Middle of *May*, sooner or later, according to the Temper of the Weather and the Ripeness of the Herb.

As soon as it is cut down, it is immediately carried to the Mill, and by Grinding made so small as to be fit to be made up into little Balls, without any Kind of Mixture.

They put these Balls upon Hurdles to dry; and when they are sufficiently free'd from their Moisture, they put them once more in the Mill, and grind them into as small a Powder as they well can.

When it is thus reduc'd to Powder, they lay it in a Heap upon a smooth Floor, or on a Board Floor, and then water it plentifully by pouring Water upon it, 'till such time as it sticks together, and sends forth a Vapour or Smoak; and they let it lie there for several Weeks so warm and smothering hot, 'till it is by Degrees macerated and ripened; the watery Moisture in the mean while evaporating, and the medicinal Moisture concocting. But in order to moderate the Heat, and prevent its becoming too intense, they turn it every Day with a Shovel, for three or four Weeks. But it contracts a Mouldiness and Whiteness in drying, which it afterwards loses, before it arrives to its full

full Ripeness; when it is perfectly prepared, they put it in Bags, and carry it to Market to sell.

In a warm and dry Summer the Juice is well concocted, and thereby is the more fit to make a noble and excellent Paint. But when the Weather is rainy and moist, it runs much into Leaves, and enriches the Sower with a plentiful Crop, growing up very quickly, and bringing four or five Crops in one Summer. The first Crop is always accounted the best, and the others that follow grow worse and worse in Proportion, to the last.

This *Wood* not only gives of it self a blue Colour, but is the very Basis and Foundation of almost all other Colours. But I am afraid I have said too much of our *Wood*: Whoever desires to know more, (for what has been said is not sufficient to instruct one perfectly ignorant of this Art) must consult those Authors who have made it their Business to treat of this Matter; viz. the fore said *Crolach*, and an anonymous Author, who has wrote a Treatise in *English* concerning Husbandry.

I cannot assent to *J. Bodew's* & *Stapel*, That *Wood* does not impoverish, but rather enriches Land; tho' perhaps it may happen to make it more fit for producing of Wheat: For that is not the most fertile Wheat that is sown upon the richest Ground, since it luxuriates and spends all its Strength in the Stalks and Leaves, and does not produce much Grain, and the Grain it does produce is not plump and full of Flower.

Parkinson says, that the Faculties of *Wood* are binding and very drying, and somewhat bitter withal, but not acrimonious; and that the wild Sort is much more so than the cultivated; because commonly all wild Herbs exceed the tame in their Properties, and that therefore it resists Putrefaction, and prevents it more than the tame doth: That the Tame stanches Bleedings of all Sorts, either inward or outward, either upwards or downwards, more than the wild. The Decoction of the manur'd, and much more of the wild Sort, made with Wine, cures the Hardness of the Spleen, especially if the outward Region of it be fomented with it. The manur'd is much more successfully used for all green Wounds than the wild,

by quickly consolidating and closing up the Lips of them: Nor is it less effectual for repressing the corroding malignant Qualities of foul and eating Ulcers, Cancers and the like; and even heals them. It allays and dissolves all hot Inflammations, Impostumes, *St. Anthony's Fire*, and hard Tumours or Swellings.

TABLE CI. Fig. 2.

GENUS V.

Crambe, a Sort of Colewort.

Crambe is a Plant with a Flower in Form of a Cross A, consisting of four Leaves B: Out of whole Flower-cup C, rises the Pointal D, which afterwards turns to a Fruit or Husk E, having but one Chest or Cell F, gaping both Ways G G, furnish'd with a Seed: that is commonly oblong H.

The Species of Crambe are,

1. *Crambe maritima*, *Brassica folio*. Maritime Crambe, with a Colewort Flower. *Brassica maritima*, *monospermus*. C. B. Pin. 112. *Brassica monospermus*, *Anglica*. J. B. 2. 830. *Brassica marina*, *sylvestris*, *multiflora*, *monospermus*. Lob. Icon. 245.

The Sea Crambe, or Colewort has several broadish, large, thick and wrinkled Leaves, or curl'd as it were about the Edges, growing each upon a several thick Foot-stalk, very easy to be broken, and of a greyish green Colour: From among which rises up a strong thick Stalk, two Foot high and better, with some Leaves on it quite up to the Top, where it very much branches out, and on every Branch stands a large Bush of pale whitish Flowers, consisting of four Leaves each: After which come small thick and short Pods, containing but one roundish and greyish Seed apiece, and much larger than *Soldanella* or *Sea-bindweed* Seed. The Root is pretty large, and shoots forth many Sprays or Fibres under-ground, keeping the green Leaves all the Winter.

2. *Crambe maritima*, *foliis Erucae latioribus*, *fructu hastiformi*. Maritime Crambe, with Rocket Leaves, but broader, and a Pod shap'd like a Spear. *Eruca maritima*, *latifolia*,
E e e 2

latifolia, Italica, siliquâ bastæ cuspidi simili. C. B. Pin. 99. *Cakile, sive Eruca marina, latifolia.* J. B. 2. 868. *Eruca maritima, Anglica, siliquâ fungosa, torosa, rotunda, foliis crassiss, latioribus.* Mor. Hist. Oxon. Part 2. 231.

Tho' the Root of this Plant is small, yet it is pretty long, producing many Stalks above nine Inches high. The Leaves are like those of base wild *Rocket*, but smaller, satter, of an acrid saltish Taste. The Flowers stand upon peculiar lateral Shoots, rang'd like the Flowers of *Rocket* or *Colewort*, and of the same Make and Shape, and are of a purple Colour. The Pods are thickish, short, containing two Seeds each, says *Bauhinus*, but Mr. Ray affirms that he observed only one Cell or Cavity in the Seed-vessel; which is right.

3. *Crambe maritima, foliis Erucae angustioribus, fructu hastiformi.* Maritime *Crambe*, with *Rocket* Leaves, but narrower, and a Fruit shap'd like a *Spear*. *Eruca maritima, angustifolia, Italica, siliquâ bastæ cuspidi simili.* C. B. Pin. 99. *Cakile quibusdam, aliis Eruca Marina & Raphanus marinus.* J. B. 2. 867. *Cakile Serapionii, Eruca folio, Napi flore, vulgò Eruca marina.* Lob. Icon. 223.

4. *Crambe orientalis, Persfoliatæ folio, fructu quatuor alis undulatis munito.* Oriental *Crambe*, with a *Thorough-war*

Leaf, and a Fruit guarded by four wavy Wings.

5. *Crambe orientalis, Dentis Leonis folio, Erucaginis facie.* Oriental *Crambe*, with a *Dandelion* Leaf, and the Make of base wild *Rocket*. The *Crambe maritima, foliis Erucae latioribus & angustioribus, fructu hastiformi* is justly excluded this Genus, because it belongs of Right to *Cakile*.

The Sea *Crambe* is not much used in Physick; but the Herb containing in it acrimonious, nitrous, and bitter Qualities, the first Broth or Decoction of it opens the Belly and purges the Body; whereas the second Decoction is said to bind the Body. However, *Galen* is of Opinion that this is noxious, because he says it varies much from the Temperature of our Bodies, as being hotter and drier than the Garden Kinds; and therefore as all other wild Herbs are stronger in their Operations than the tame Ones, so this cleanses and digests more powerfully than they. The Leaves, while they are young, tho' bitter, being boil'd, are eaten like other *Coleworts* by several poor People near the Sea; for the Boiling takes away much of their Bitterness. The Seed bruised and drunk, kills Worms: The Leaves or the Juice of them applied to Sores or Ulcers, cleanses and heals them, dissolves Tumours or Swellings, and removes Inflammations.

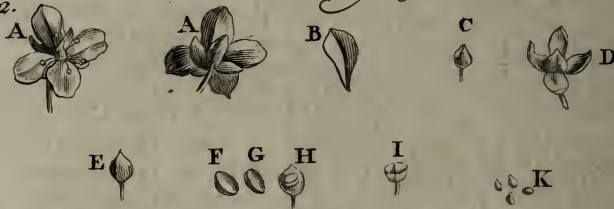
Thlaspi Mithridate-mustard.

Fig. 1.



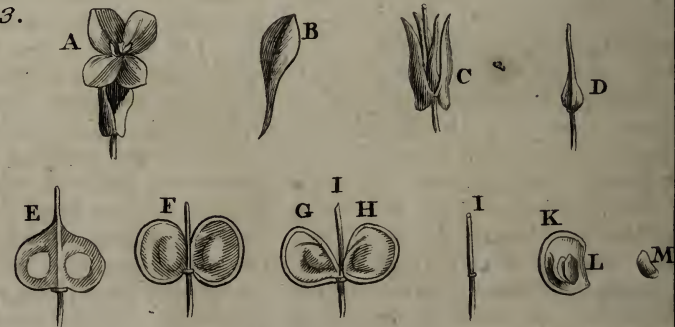
Cochlearia. Scurvy-grass.

Fig. 2.



Thlaspidium. Bastard Mithridate-mustard.

Fig. 3.



SECT. II.

Of Herbs with a Flower in Form of a Cross, whose Pointal turns to a short Fruit, divided in two by an intermediate Septum or Midriff, and placed, with Respect to the Valves, obliquely perpendicular.

TABLE CII. Fig. 1.

GENUS I.

Thlaspi, *Witchzidate-mustard*.

M *Witchzidate-mustard* is a Plant with a Flower in Form of a Cross A, consisting of four Leaves B: Out of whose Flower-cup D, rises the Pointal E, which afterwards turns to a smooth roundish Fruit F, commonly with a foliaceous Border, and slit on the upper Side, divided into two Cells I K, by an intermediate Partition H, plac'd obliquely perpendicular with Respect to the Valves G, furnish'd with Seeds that are generally smooth L. To these Marks we must add the undivided Leaves, by which it differs from *Cresses*.

The Species of this Plant are,

1. *Thlaspi vulgatus*. F. B. 2. 921.
Common *Witchzidate-mustard*. *Thlaspi arvense*, *Vaccariæ incano folio*. C. B. Pin. 106.
Thlaspi alterum. Dod. Pempr. 712.

From a pretty thick, fibrous, ligneous, white, and somewhat acrid Root, rise hairy, taper, stiff, branch'd Stalks: To which adhere Leaves without Foot-stalks; which Leaves are long, becoming narrower by gentle Degrees, dented or notched, embracing the Stalk with double Finns, of an acrid biting Taste. The Flowers are very small, white, numerous, ranged as in *Shepherd's-purse*, supported by four greenish Leaves, with white Chives. The Seed-vessels display the Flowers very quickly, and are foliaceous, roundish, unbroken, slit at Top,

and contain an acrid Seed like *Mustard* or *Cresse* Seed.

To these Marks add, That the Leaves which spring up immediately from the Root rest upon long Foot-stalks: That the little Pods or Seed-vessels stand upon longer Foot-stalks than in *Cresses*, and bending downwards; and that they contain only two Seeds, one at each End.

It grows commonly among Corn, especially in a sandy and gravelly Soil.

2. *Thlaspi Vaccariæ incano folio*, minus. C. B. Pin. 106. Prodr. 47. Small hoary-leav'd French *Witchzidate-mustard*.

The whole Plant is downy and hoary. From a pretty thick reddish Root rise Stalks scarce a Palm high, crooked, and as it were creeping, hairy and hoary, clothed with small hoary Leaves, resembling the Leaves of *Tower-mustard*, wanting Foot-stalks, and ranged along the Stalks alternately: On the Top of which stand several white Flowers united as it were into a roundish Spike, to which succeed little Bags or Seed-vessels.

It is found creeping in the Fields about *Montpelier*, and a little larger and more erect in *Provence* near *Marseilles*.

Mr. Ray says he suspects that this does not differ from the *Thlaspi incano folio perenne*; and that perhaps the Smallness and Hoariness of the Leaves may be owing to the Soil where it grows. D. *Magnol* found it in great Plenty in the Forest of *Valens*, in the Road as you go to a Village call'd *Violis*, in full Bloom in the Month of May.

3. *Thlaspi arvense*, *siliquis latis*. C. B. Pin. 105. Field *Witchzidate-mustard*, with broad Pods. *Thlaspi cum siliquis latis*. J. B.

2. 923. *Thlaspi latius*. Dod. Pempt. 712. This is the *Thlaspi Diofcoridis* of Gerarde; and the *Thlaspi Draba folio* of Parkinson.

This is a Plant very well known, with an oblique, white, ligneous Root, of an oleraceous Taste, which at length becomes bitterish; with Stalks above a Palm and a half and a Cubit high, angular, channell'd, and winged. The Leaves adhere to them without a Foot-stalk, being wav'd, with pretty long sharp Finns, of a dark green Colour, and of a Taste betwixt Colewort and Onions, and a Smell pretty near that of Garlick. The Flowers are small and whitish, resembling those of *Shepherd's-purse*; to which succeed broad, round, flat or foliaceous, smooth Pods, slit on the upper Side, but bulging a little more out in the Middle by Reason of the Seeds contained within; which are round with circular Channels, and of an acrid Taste. The Flowers which spread successively on the Tops of the Stalks and Branches, as in the other Species of this Genus, run into a Sort of a long Spike, having no Tenons or slender Leaves join'd to them, which in this Genus are an Inch long. The Leaves are soft and smooth.

It is to be met with in Corn Fields, but rarely in England. Mr. Ray tells us he found it at *Wormingford* in *Essex*, near the *River Stowre*; as also near *S. Osithe*, at *Saxmundham* in *Suffolk*; and near *Stone* in *Staffordshire*.

4. *Thlaspi capsulis hirsutis*. *J. B.* 2. 922. *Mithridate-mustard* with hairy Pods. *Thlaspi villosum*; *capsulis hirsutis*. *C. B.* Pin. 106. Prodr. 47.

This Species is lower and smaller than the common Sort, but otherwise very much like it. The Root is also single, white, and sends up a great many Stalks, lower than those of the other, and scarce able to stand upright, but rather leaning upon the Ground. The Leaves in this differ, in that they are both smaller and deeper notch'd, but the most evident and perceivable Difference is in the Flowers, which in this Species are three times larger than in that; and in the Seed-vessels, which are both longer and rougher, and have a longer Point or Prickle at Top. The Seeds are smaller than in the common Sort,

It flowers at the same Time with the former. Mr. Ray says he first observed this Plant in *Wales*, where it bore the Winter.

J. Bauhinus's Description of this Plant agrees in most Things with ours; but, which is strange, he observed no Difference in the Bigness of the Flowers: And the Leaves of this Plant which stand lowermost, says Mr. Ray, are not divided, if I remember right, like the Leaves of *Rocket*, but are whole, and only slightly sinuated or wav'd round the Edges; nor are the Pods hairy, but rather hoary, with a short Down and as it were Flox. *C. Bauhinus* makes the Root of his hairy *Thlaspi* to be small and oblong, and the Stalks to be single and a Foot high, in which it differs from ours. The Leaves at the Root ly along upon the Ground, have long Footstalks, and an orbicular Point. The rest agree.

5. *Thlaspi capsula cordata, peregrinum*. *J. B.* 2. 927. *Foreign Mithridate-mustard*, with a Pod in the Shape of a Heart.

This *Thlaspi* rises a Foot high. The Stalk which is divided into several Branches, is garnish'd with Leaves like Flox, which are blunt, grey, and opposite to one another, but in no Order. The Tops of this and of the Branches are adorned with small purple Flowers, which are succeeded by foliaceous Pods, shaped like a Heart, remarkable for their beautiful Greenness, about the Bigness of one's little Finger, separated into two Parts by a certain Line, and, in one Word, shaped exactly like the Pods of the *Thlaspi Draba folio*. This Root is small, somewhat hard, and white. The Plant tastes bitter with a certain Acrimony. The Seed is small, oblong, yellowish, of a somewhat acrid Taste, but not at all disagreeable.

6. *Thlaspi Allium redolens*. *Mor. Hist. Oxon. Part* 2. 297. *Mithridate-mustard*, smelling like Garlick. *Scorodonthlaspi Ulyssis Aldrovandi*. *J. B.* 2. 932.

It stands upon a single, white Root, furnish'd with a few Fibres. It is spread forth into Heads, with a numerous Attendance of Leaves that have long Foot-stalks, which from a narrow Beginning do by Degrees acquire an Oval Figure, and are of a roundish Shape; the first of which do somewhat resemble

resemble the Leaves of *Daizy*, some of them gently jagged, some of them with a few Teeth, and others have hardly any at all. The Colour is green, with pretty many Nerves deriving their Original from the Rib. But the Leaves which adhere to the Stalks in an alternate Order, especially the uppermost ones, do encompass the Stalks as it were with very small Wings. On the Tops of the Stalks stand little, small, white Flowers, like those of *Shepherd's-purse*; which are succeeded by oblique, roundish Bags, in the Shape of a Heart; not very flat, resembling those of *Thlaspi cordatum*. The whole Plant smells strong of *Garlick*, even tho' it be not handled. The Root and Leaves have an oleraceous Taste, which is agreeable, leaving behind it in the Mouth a somewhat savory Acrimony, not without the Smell of *Alliaria*.

This bears the Flowers and Pods in July.

7. *Thlaspi arvense, perfoliatum, majus*. C. B. Pin. 106. The greater Field *Mithridate-mustard*, with *Thorough-wax* Leaves. *Bursa Pastoria, foliis Perfoliatis*. J. B. 2. 938. *Thlaspi oleraceum*. Tabern. Icon. 462.

The lower Leaves of this Plant that lie upon the Ground are small, and roundish like those of *Basil*, but a little rent or torn on the Edges at the Bottoms, where they are smallest, and a little dented about the other Part, of a greyish green Colour, every one upon a small Foot-stalk; among which rises up a round Stalk, purplish at the Bottom, about a Foot high, sometimes spotted; on which grow single Leaves one above another at the Joints, at certain Distances, which encompass it at the Bottom, after the Manner of *Thorough-wax* Leaves, where likewise come forth other smaller Leaves upon short Branches, on the Tops of which, and of the Stalk, stand several small white Flowers that break forth out of reddish Husks; after which appear small flat Pouches, like those of *Shepherd's-purse*, parted in the Middle, as is common to most of this Genus, on each Side whereof lies small, flat, yellowish Seed. The Root is long, white and ligneous. The whole Plant is more mild, and has less of Acrimony than the others.

8. *Thlaspi perfoliatum, minus*. C. B. Pin. 106. The smaller *Thorough-wax* leaf'd *Mithridate-mustard*. *Thlaspi tertium, pumilum*. Clus. Hist. 131.

This lesser *Thlaspi* has a few Leaves lying along upon the Ground, which are of a greyish green Colour, both in Form and Colour like the Leaves of *Brassica campestris* Codd'd *Thorough-wax*, but much smaller; such of them as grow up higher upon the Stalk, which is scarce a Foot high, are smaller, pointed at the Ends, and broad at the Bottoms, encompassing it like the last. The Flowers are small and white, and the Seed-vessels flat like the *Candy* Kind, and somewhat sharp-pointed.

9. *Thlaspi parvum, saxatile, flore rubente*. C. B. Pin. 107. Small red-flower'd *Mithridate-mustard*. *Lithothlaspi quartum, carnosum, rotundo folio*. Clus. Hist. 1. 279. This is the *Thlaspi montanum carnosum, rotundo folio* of *Parkinson*.

This Species delights in the Clefts of Rocks, but is likewise found in more level and even Places. The Root is pretty long, smooth, whitish, and hard; from which rise up three or four Sprigs, looking different Ways, upright, round, and reddish; around which grow thick-set, fleshy, round, and very small Leaves, not exceeding the Fruit in Bigness, sometimes reddish at Bottom about the Root, but the rest of a *Colewort* Colour, and still turning narrower along the Sprigs, as well as longer and thicker-set, quite up to the Flowers. On the Top stand small Umbells with Clusters of reddish green Berries, round which without are disclosed Flowers in a Circle, as it were crowning the Navel, and Compress'd, of a delightful red Colour, and beautifully striped with bloody Lines, having yellow *Stamina* within; after which the middle Flowers expand themselves by Degrees; and the Sprigs stretch themselves out sometimes a Foot length. To these succeeds the Fruit, ranged as in the *Thlaspi saxatile rotundifolium*, but are smaller, having notch'd or dented Edges at Top. The Taste of the Root and Leaves is bitter; but the Seed is but very little acrimonious, and is small like that of *Irion*, and yellowish, very copious in double Bags, and differing from the former Species.

It flowers in May.

Mr. *Magnol* gathered it with the Flower and Seed in the Months of *May* and *June*, in the Declivity of the Mountain *Capouladin à las Cambrettes*, among the Rocks, not far from *Montpelier*.

10. *Thlaspi alpinum*, folio rotundiore, carnosio, flore purpurascente. *Witchidate-mustard* of the Alps, with a roundish, fleshy Leaf, and a purple flower.

11. *Thlaspi minimum*, Lusitanicum, Cochleariæ folio. The smallest Portuguese *Witchidate-mustard*, with a Spoonwort Leaf.

12. *Thlaspi alpinum*, minimum, foliis crassis & angustis. The smallest *Witchidate-mustard* of the Alps, with thick and narrow Leaves. *Nasturtium alpinum*. capsula *Nasturtii vulgaris*. J. B. 2. 918. *Nasturtium alpinum*, capsula *Nasturtii bertensis*. C. B. Prodr. 45.

This Plant is scarce three Inches high, with a ligneous Root sending forth a few Fibres. The little Stalks are two or three in Number, along the Tops of which grow Husks not unlike those of *Cresses*, and plac'd in the same Order. The Leaves are small, single, thick, narrow, and not an Inch long, so far as I could observe. The Flowers are very small, and, as I think, white. *J. Baubinus*.

13. *Thlaspi Rosa de Hiericho dictum*. *Mor. Hist. Oxon. Part 2. 328.* *Witchidate-mustard* called the Rose of *Jericho*. *Rosa Hierichuntea vulgo dicta*. C. B. Pin. 484. *Rosa Hierichonteia*. Lob. Icon. 203. Perhaps this may be the *Myagrum Arabicum* of *Zannoni*.

This is a Shrub growing up with ligneous and thick-set Suckers immediately from the Root, about a Palm high and better, thick, of an Ash Colour, divaricated into a numerous Offspring of Branches, all of them uniting as it were into a Ball on the upper Part; along which are stretch'd thin-set Leaves, an Inch or an Inch and a half long, half an Inch broad, jagged, Ash coloured, and hairy. Little white Flowers grow all along as it were in Branches on the Inside of the Branches; and each of them is succeeded by a Seed-vessel, with two Cells, separated by a little Membrane, containing so many orbicular, compressed, reddish, acrid Seeds, with two little Ears sticking out as it were above the Cells, and placed oppo-

site to one another; and a pretty long Pointal rising from the Partition-wall of the Flower-cup. The Root is pretty thick, ligneous, and single.

Morison says, That at each Joint is plac'd an oblong narrow Leaf, resembling *Olive* Leaves, out of whose Bosoms spring forth single Flowers with four Leaves, of an herby white Colour: From whence it appears that this is a true and genuine Species of *Thlaspi*, and that it is properly reduced to this Genus.

There is not the least Reason or Pretence in the World for calling this a *Rose*; since it has nothing common with a *Rose*. *Bellonius* tells us that a certain Impostor, who was a Monk, was the Author of this Name; tho' there is no such Plant to be seen about *Jericho*, but in *Arabia deserta* in the Sands on the Sea-shore. However *Rauwolfus* found a wild Species of it in *Syria* on Houses, and amongst Rubbish. *C. Bauhinus* tells us he had this Plant several Years in his Garden, and that it both grew and bore Flowers easily.

It is plain this cannot be the *Amomum* of the Antients, as many have fancied, because its Leaves are not white like *Vine* Leaves, nor has it any Manner of Smell either green or dry.

This Plant will spread out its Leaves at any Time, if you put the Root into warm Water; and not solely at the Time of our Saviour's Birth, as several Impostors have endeavour'd to persuade the World.

14. *Thlaspi Virginianum*, foliis Iberidis amplioribus, & serratis. *Virginian Witchidate-mustard*, with *Scitica* Cress Leaves, but larger and dented. *Iberis humilior, annua, Virginiana, ramosior*. *Mor. Hist. Oxon. Part 2. 311.*

15. *Thlaspi montanum*, sempervirens. C. B. Pin. 106. Evergreen mountain *Witchidate-mustard*. *Thlaspi sempervirens Species candida*. J. B. 2. 930. *Thlaspi montanum candidum*. Ludg. 1180.

The Stalk of this Plant is pretty thick and ligneous, covered from the Root upwards to the Branches, with a brownish ragged Bark, set with several long white Leaves at Distances, somewhat like those of *Stock-gilly-flowers*, but smaller, and very sharp and biting to the Taste. On the Tops of the

the Branches, which are many and scattering, stand Tufts of white Flowers, after which come such like Husks as are in common *Tblaspi*, and such like Seed in them, very hot and biting. The Root spreads it self into many Sprays, and does not perish, but abides with the Stem also above Ground for many Years.

16. *Tblaspi Creticum quibusdam, flore rubense & albo. J. B. 2. 924. The Candy Mithridate-mustard of some, with a reddish and white Flower. Tblaspi umbellatum Creticum, Iberidis folio. C. B. Pin. 106. Draba sive Arabis aut Tblaspi Candie. Dod. Pempt. 713.* This is the *Tblaspi umbellatum, flore purpureo & albo* of Parkinson; and the *Tblaspi Candie* of Gerard.

From a white, single, surculous (*i. e.* full of Shoots or Sprigs) and pretty thick Root for the Size of the Plant, of an acrid and bitter Taste, springs up a Stalk a Foot or nine Inches high, taper, firm, branch'd from the very Root with very thick-set Branches, hard, ligneous, smooth and green. The Leaves are thick-set both upon the Stalks and Branches, placed in an alternate or no Order, at all, oblong, narrow, smooth, like and larger than the Leaves of *Scitica Cress*, cut in the Edges with a few pretty large Notches or Teeth. The Tops of the Stalks and channell'd Branches sustain sightly Flowers, that are ranged as it were in Umbells, and tetrapetalous, (*i. e.* consisting of four Leaves,) the two outmost ones being twice as large as the two inmost, blowing successively, standing upon Foot-stalks half an Inch long, generally of a purple, but rarely of a white Colour. To each Flower succeeds a flat, oblong Pouch, with the Point split in two, and an oblong Pointal, that remains after the Flower. There are two reddish Seeds in each Pouch.

This is an annual Plant. The Taste of the whole Plant is acrid and very bitter. It is cultivated in Gardens for the Sake of the Flower.

I have met it near *Salerno* in the Kingdom of *Naples*, and near *Viterbo* in *Tuscany*, where it grows wild. Ray.

17. *Tblaspi umbellatum, arvense, amarum. J. B. 2. 925. The bitter, Field, umbellated Mithridate-mustard. Tblaspi*

umbellatum, arvense, Iberidis folio. C. B. Pin. 106. Tblaspi amarum. Tabern. Icon. 462.

This Plant rises above a Palm and a half high, with several branch'd, channell'd, and somewhat hairy Stalks; on which grow oblong Leaves, resembling those of *Scitica Cress*, growing broader by Degrees from a narrow Bottom, and dented round the Edges, pretty thick, somewhat hairy, of a very bitter and somewhat acrid Taste. The Flowers are ranged as in an Umbell, tho' they do not blow all at once, being of a whitish purple Colour, or altogether white, consisting of four Leaves, the two largest of which are also the longest; so that one of these is equal to both the other two. The Pods are split and broken, and contain a small acrid Seed, like that of common *Cress*. The Root is ligneous, white and fibrous.

This differs from *Candy Mithridate mustard* in the Narrowness of its Leaves; in the Flowers blowing gradually on the Tops of the Stalks and Branches, and running up into Spikes; whereas in the *Candy Species* even the Seed-vessels are ranged in Umbells, after the Flowers are decay'd; in the Colour of the Flower, from white to purplish; and last of all, in the smaller Size of all its Parts.

It grows among the Corn on the Hill call'd *Saleva* near *Geneva*, and about *Thuir*, a Village near the Mountain *Jura*; and is to be seen in many Places among the Corn in *Germany*.

18. *Tblaspi umbellatum, Creticum, flore albo,odoro, minus. C. B. Pin. 106. The smaller Candy, umbellated Mithridate-mustard, with a white sweet-smelling Flower. Tblaspi parvum, umbellato flore niveo, odorato. J. B. 2. 925. Tblaspi quantum, parvum, odorato flore. Clus. Hist. 132.*

This is a low Plant, springing up from a Seed, and rises with single, round Rods, divided into a great many Branches, all along which, and the Stalk, are stretch'd narrow Leaves, dented at the End, resembling the Leaves of the *Candy Mithridate-mustard*, and endow'd with an acrid Taste. On the Top of the Stalk and Branches stand as it were certain Umbells of snowy, sweet-smelling Flowers collected into one Head, which are succeeded by Pouches like the

Seed-vessels of *Candy Mithridate-mustard*, in which is contained the Seed. The Root is not lively, no more than the *Candy Kind*. *Clus.*

19. *Thlaspi Lusitanicum*, umbellatum, gramineo folio, flore purpurascente. Portuguese umbellated *Mithridate-mustard*, with a Grass Leaf, and a purplish Flower.

20. *Thlaspi Lusitanicum*, umbellatum, gramineo folio, flore albo. Portuguese umbellated *Mithridate-mustard*, with a Grass Leaf, and a white Flower.

21. *Thlaspi saxatile*, vermiculato folio. *C. B. Pin.* 107. Rock *Mithridate-mustard*, with a chequer'd Leaf. *Lithotblaspi montanum*, fruticosius, vermiculato acuto folio. *Col. Part 1.* 227. This is the *Thlaspi montanum vermiculato acuto folio* of *Parkinson*.

It insinuates it self into the Clefts of the Rocks with its large, white, ligneous Root; from which rises a thick, ligneous and rugged Stalk, which sends forth many short Tendrils a Palm long, with small, narrow, fleshy, chequer'd, almost round and blackish Leaves, sharp at Top, and hairy about the Edges, growing close and quite round them; but thinner-set and shorter about the Flowers. The Flowers are collected as it were into large round Umbells, being white and of a pleasant red Colour, with the upper Leaves small, but the lower ones larger, much after the Fashion of *Candy Mithridate-mustard*, but are somewhat smaller; with four yellow Stamina within. Now these Flowers are so thick-set and throng, that the whole Plant seems to be covered with them when it flowers. When the middle Flowers begin to blow, the outermost and lowermost ones leave Fruit all along the Stalk, standing upon very short Foot-stalks, smaller than the Body of the Fruit; which Fruit is very broad, hollow like a Spoon, and larger than the Fruit of the *Thlaspi vulgare Vaccariae folio*, rising but little, presenting the convex Side to us, and the hollow one to the Stalk. This Fruit is broad, after the upper Part is split, and not round but corner'd. The Leaves have a very acrid Taste, but the Seed still more so, which is broad, flat, yellow, smaller than the other Species, one in each Cell, so that there are two in every whole Pod.

It flowers in May, and produces ripe Seed in Summer. It is to be found in the rocky Mountains near *Anvers* in *Valois*, where there is no Earth to be seen.

21. *Thlaspi parvum*, saxatile, flore rubente, O'æ folio. Small, Rock, *Mithridate-mustard*, with a reddish Flower, and an Olive Leaf.

22. *Thlaspi orientale*, saxatile, flore rubente, foliis Polygalæ, petalis florum æqualibus. Oriental, Rock, *Mithridate-mustard*, with a reddish Flower, Milk-wort Leaves, and the Leaves of the Flowers alike.

23. *Thlaspi orientale*, tenuifolium, canescens, flore albo. Oriental, thin-leav'd, whitish *Mithridate-mustard*, with a white Flower.

24. *Thlaspi orientale*, glabrum, Samoli foliis. Smooth, oriental *Mithridate-mustard*, with *Samolus* Leaves.

25. *Thlaspi orientale*, folio Cynocrambes, flore minimo. Oriental *Mithridate-mustard*, with a *Cynocrambe* Leaf, and a very small Flower.

26. *Thlaspi orientale*, fruticosum, Scammonii Montpelienis folio. Oriental, shrub *Mithridate-mustard*, with the Leaf of *Montpelier Scammony*.

Thlaspi is derived from the Greek Verb, *thlao*, which signifies to squeeze or press; because the Fruit of this Plant is smooth and flat as if it was press'd.

The first Species of this Plant is most in Use in the Shops. The Seed is reckoned to be hot and dry in the 4th Degree, and is a Cleanser. Its principal Use is in breaking ward Abscesses, in provoking the Terms, and in curing the Sciatica Gour. Being applied outwardly, it cleanses all Sorts of creeping Ulcers, and is likewise made use of for a Snuff, but not commonly.

It is look'd upon to be pernicious and dangerous for big-bellied Women, because it kills the Child in the Womb.

This Seed is likewise accounted an excellent Remedy for the Dropsy and for the Bloody-flux, because of its strong diuretick Vertue.

TABLE CII. Fig. 2.

GENUS II.

Cochlearia, Spoonwort or Scurvy-grass.

Scurvy-grass is a Plant with a Flower in the Shape of a Cross A, consisting of four Leaves B: Out of whole Flower-cup D, rises the Pointal C, which afterwards turns to an almost globular Fruit E, divided into two Cells I, by an intermediate Partition H, to which the Valves F G, adhere on both Sides, and furnish'd with roundish Seeds K.

The Species of this Plant are,

I. *Cochlearia folio subrotundo. C. B. Pin. 110. Scurvy-grass with a roundish Leaf. Cochlearia. J. B. 2. 942. Dod. Pempt. 594.* This is the *Cochlearia rotundifolia* of Gerarde; and the *Cochlearia major rotundifolia sive Batavorum* of Parkinson.

This Species has a pretty thick, straight Root, at which grow several long white Fibres with very fine Capillaments at them; from which do immediately rise up many Leaves with Foot-stalks, purplish towards the Bottom, a Palm long, thick, succulent, gently hollow almost like a Spoon, of a deep green Colour, deeply furrow'd on the upper-Side, round, otherwise angular: But such as are set on the Stalks, are more jagged, and longer, without Foot-stalks, embracing the Stalks with two Wings. The Stalks from the Root are many, angular, purple when growing in an open Place, otherwise green, solid, branch'd, feeble, and scarce able to sustain themselves, about nine Inches high and better. The Flowers are many, white, four-leav'd, the Leaves being narrow and roundish at Top, not split in two, with about six small yellow *Stamina* in the Middle, and Foot-stalks half an Inch long standing out from the Stalk. The plump Seed-vessels consist of two Cells, in each of which are commonly three or four small, round, reddish Seeds. The Taste of the whole Plant is acrid with a Sort of Bit-

terness, very near that of *Cresses*, as is also the Smell.

It grows wild near the Sea-shore in many Parts of England, especially in Cumberland and Lancashire, as also on Rocks, out of the Clefts of Rocks and Holes of Stones. It grows even on the Sides of Mountains a good Way from the Sea, near the Sides of Rivulets and Springs rising out of Hills, viz. on Penigent, Ingleborough, Stanemore, Castleton, &c. But the Leaves of that which grows on Hills are much smaller, rounder, and smoother than such as grow near the Sea, and resemble the Leaves of *Kidneywort*. But when it is transplanted to Gardens, it changes its Countenance, and grows as large as the maritime Sort.

2. *Cochlearia major, Batavica, erecta; folio oblongo. H. L. Bat. Larger, upright, Dutch Scurvy-grass, with an oblong Leaf.*

This differs from the larger common *Scurvy-grass*, only in its Stalks rising up straight, which are nine Inches, and sometimes a Cubit high, and its Leaves being oblong. It grows in the ouzy Marshes about Catwick.

3. *Cochlearia folio sinuato. C. B. Pin. 110. Scurvy-grass with a waved Leaf. Cochlearia Britannica. Dod. Pempt. 594.* This is the *Cochlearia vulgaris* of Parkinson.

This *Scurvy-grass* has many thick fat Leaves, more long than broad, and sometimes longer and narrower, sometimes smooth on the Edges, and at other Times waved; (for all these Varieties are to be seen) they are also smooth and pointed, and sometimes a little hollow in the Middle, of a dark green Colour, tho' sometimes brownish, each standing by it self on a long Foot-stalk, which is sometimes brownish and at other Times greenish; from among which rise small slender Stalks, bearing a few Leaves like those that grow at the Root, but commonly longer and smaller. At the Top of the Stalks grow many whitish Flowers, with yellow Threads or *Stamina* in the Middle, standing round a green Head, which turns to the Seed-vessel, which is somewhat flat when ripe, very like some of the Species of *Thlaspi*, wherein is contain'd reddish Seed, tasting somewhat hot. The Root is com-

posed of many white Strings or Fibres, which stick deep in the Mud, where it chiefly delights to grow; tho' it grows well also in higher and drier Grounds, and tastes a little brackish or salish even there, but nothing so much as where it is nourish'd by salt Water.

4. *Cochlearia Aremorica*. H. R. Par. *Bretagne Scurvy-grass*. *Hederaceum Thlaspi*. Lob. Icon. 615. *Thlaspi hederaceum*. J. B. 2. 933.

It grows in the Peninsula of *Portland*, at *Plymouth*, and in other maritime craggy Places in *England*, being a creeping Plant with slender, channell'd, purple Stalks, nine Inches or a Span high; with waved, Ivy, and fleshy Leaves. The Flowers are small and white, and the Seed small, in Shape and Taste like that of *Thlaspi*. Lobel.

Neither I nor any other *English* Man that I know of, ever found this Plant in any of the Places mentioned by *Lobel*, or any where else in *England*, which is very strange; unless it be our small round-leav'd *Scurvy-grass*, whose Leaves on the Stalks are angular, and resemble *Ivy* Leaves. Ray.

5. *Cochlearia Danica*, procumbens. *Morif. Hist. Oxon. Part 2. 309. Leaning Danish Scurvy-grass*. *Cochlearia Danica*, repens. C. B. Pin. 110. Prodr. 53. Sim. Paul. Quadrip. Bot. 270.

This *Scurvy-grass* has Root and Leaves like those of the *Cochlearia minor erecta*, but much more numerous; among which rise little Stalks half an Inch high, adorned with small white Flowers. It grows in the same Places with the other, creeping upon the Ground like *Rupture-wort*, and perfectly resembling it, in Leaves, Flowers, Seed-bags, and Taste.

If this really creeps upon the Ground with its Stalks, it is certainly a distinct Species from the following Species, but if it only lies upon the Ground like *Rupture-wort*, perhaps it may be the same with it, or with our small round-leav'd *Scurvy-grass*.

6. *Cochlearia minor*, erecta, Danica. Sim. Paul. Quadrip. Bot. 270. Small, upright, *Danish Scurvy-grass*. *Cochlearia minor*, erecta. C. B. Pin. 110. Prodr. 53.

From a capillaceous Root rises a small, smooth Stalk, not a Palm high. It has a

few small Leaves at the Root, having oblong capillaceous Foot-stalks; and those that encompass the Stalk alternately are smaller by Degrees, having very small Foot-stalks, and are waved like the *Cochlearia Britannica*. On the Top of the Stalk stand small white Flowers, having little oblong Husks containing very small Seed.

It grows by the Sea shore in the Isle of *Anglesey*.

7. *Cochlearia altissima*, Glasti folio. The tallest *Scurvy-grass*, with a Wood Leaf. *Lepidium glastifolium*. C. B. Pin. 97. *Lepidium annuum*. Lob. Icon. 321. *Lepidium non repens*. J. B. 2. 941. Annual *Dittander*, or *Pepperwort*.

The Root is fibrous; from which rises Leaves that are at first a Palm or a Palm and a half long, narrow at Bottom, having a Foot-stalk two or three Inches long, gradually enlarging themselves to the Breadth of three Inches, and again gradually ending in a blunt Point, having no Notches about the Edges, and of a burning Taste like *Pepperwort*. It produces a Stalk two Cubits high, and sometimes higher, which is split above into many little Branches, laden with a great many little white Flowers, much larger than those of the common *Dittander*. To these succeed round, smooth Husks divided into two, separated when ripe by a pellucid and white Membrane, containing many reddish Seeds, with the biting Taste of *Thlaspi* Seed. The lower Leaves are grey, resembling the Leaves of *Woad* both in Colour and Smoothness; the upper ones, which adhere to the Stalks alternately, or in no regular Order, are very narrow and thin.

Tho' *Lobel* and others make this an annual Plant, yet the Root sometimes bears the Winter, and endures several Years, even after it has bore perfect Seed.

I observed it grow in great Plenty in the Fields about *Ratisbonne* in *Germany*. But the Plant which I gathered there had very numerous and very small Seed-vessels, containing but one Seed each, which was reddish: And therefore it must needs have been a different Species from this. Ray.

8. *Cochlearia folio cubitali*. *Scurvy-grass* with a Leaf half a Yard long.

Raphanus

Raphanus rusticanus. C. B. Pin. 96. *Raphanus sylvestris sive Armorica multis*. J. B. 2. 851. *Raphanus rusticanus, crassa radice, Lappathi folio*. Lob. Icon. 320. *Wasser-rädisch*.

The Root is thick, luscious, creeping, with a most burning fiery Taste. The Stalks are single, a Yard high, hollow, channelled, upright and stiff. The Leaves, before it produces a Stalk, are large and rugged, resembling those of *Eur-dock*; but when it has shot up a Stalk, then the Leaves upon it are a Palm long, an Inch broad or somewhat better, deeply notched round the Edges, of a less burning Taste than the Root; out of whose Wings slender Shoots springing forth sustain Flowers with yellow Chives, resembling those of *Water-cress*, both in their Form and Arrangement. To these succeed small Husks, that are short in Proportion to the Bigness of the Plant.

It loves a moist Soil. Mr. Ray observed it growing in great Plenty in Ditches and by Rivulets at *Alnwick* and elsewhere in *Northumberland*. Dr. Lister observed it upon the Banks of *Skipton* and elsewhere in *Holland*, in that Part of *Torkshire* which is called *Craven*.

9. *Cochlearia orientalis, flore minimo. Oriental Scurvy-grass, with a very small Flower. An Rosa Hierichonthæa sylvestris*. C. B. Pin. 484.

This Plant is called *Cochlearia* by the Moderns from the hollow Form of its Leaves; but some call it *Telephium*, and others will have it to be the *Britannica Plinii*. lib. 25. c. 3. (tho' it has an Affinity to *Thlaspi* and *Nasturtium* both in Shape and Taste) because *Pliny* says that it cures that Disease which is called *Stomachace* and *Scelotyrbe*, and which they will needs have to be the Scurvy. But *Cochlearia* does not answer to the Descriptions which the Ancients gave of *Britannica*; and therefore it is more likely that the *Hydrolapathum magnum* is the true *Britannica* of *Pliny* and others; as *Abraham Muntingius* has endeavoured to make out by many Arguments, in his Book *de Britannica antiquorum vera*.

This Herb is hot and biting, abounding with volatile Salt; and is therefore diaphoretick, splenetic, and aperitive, and renders fixed, thick, and rough Humours spirituous and volatile. It cures those Diseases

which owe their Rise to a too great Abundance of fixed Salt, but especially the Scurvy, of which it is a peculiar, proper or specifick Remedy, from whence it took its Name both in the *German* and the *English* Language. Some use to take it boiled in Milk or Wine: But because the Parts in which consist the chief Vertue and Use of this Plant, are very volatile, and quickly vanish by boiling; the Juice of the Herb squeezed out, or an Infusion of it, is much more efficacious than any Decoction.

This Plant is particularly effectual in hypochondriacal and tartarous Diseases of the first Region, and notably resists Putrefaction.

If the green Herb be infused in Ale or Beer, and put into a Bottle well corked, it will communicate to it all its antiscorbutick Vertue, or volatile Spirit in three or four Days Time. Mr. Ray, from his own Experience, recommends this Ale to such as are troubled with the Scurvy, to be drunk for their ordinary Drink. He says that it is not so good if the *Scurvy-grass* has been long infused in it, for thereby the earthy and fixed Parts are forced from the Herb, and communicated to the Ale, and the volatile Parts either fly away, or being jumbled with the more fixed Parts, lose a great deal of their Vertue.

The Scurvy is almost epidemical to those People who live in brackish and maritime Places, especially to the Northern People, and to those who live much upon Salt-fish. And therefore whatever abounds with volatile Salt, such as *Cresses*, *Scurvy-grass*, *Radish*, and *Brooklime*, are particularly appropriated to the Cure of this Disease.

Solenander writes that such Species of Plants are created by God Almighty in every Country, as are most agreeable to the Men and Beasts living in that Country; nay, that by the Abundance of Plants that grow any where, he can guess what epidemical Distempers every Country is liable to. Thus *Scurvy-grass* grows in great Abundance in *Denmark*, *Friesland*, and *Holland*, where the Scurvy is most frequent and common.

Such as loath the Juice of *Scurvy-grass*, may use the Tincture or liquid Essence of it, which is used every where in *Germany*. Take of green *Scurvy-grass* as much as you please,

please, beat it in a marble Mortar ; and after you have put it into a convenient Vessel drop some Water upon it that is scarce lukewarm, or, which is better, its own raw Juice, in which you have dissolved some Ferment or Yest of Ale. Sprinkle a little Salt over it. When they are all well mixed together, they must be put into a Vessel well stoppt, and put in a Place under Ground, so long till they send forth a quicker Smell than the green Herb when it is bruised : Which done, you must distill them through an Alembick in *M. B.* and thus you will get the Spirit of *Scurvy-grass*. After this take the green Leaves of *Scurvy-grass*, bruise them, and press them in a strong Press, de-fecate it with a little Water in *M. B.* in a Vessel or Glass well luted, and filtrate it through brown Paper. To three Parts of this Juice thus purified, add one Part of the Spirit of *Scurvy-grass* just now described. Digest and circulate it, *s. a.* to which if you add a little Sugar, you have prepared the Essence of *Scurvy-grass*, which I have found to be the most excellent and most efficacious Remedy for the Scurvy, when one or two Ounces of it are diluted in proper distilled Waters, nay, in Rhenish Wine or such like Vehicles, especially if some few Drops, to the Quantity of a Scruple for a Dose, of the foresaid simple Mixture or Diaphoretick be mixed with it, when the Distemper is come to a great Height. And of this and the Essence of *Trifolium fibrinum*, mixed together in equal Parts, consists the liquid Essence. *Sim. Paul.*

The Juice of *Scurvy-grass* with the bruised Herb laid on and tied to the Face, takes away Spots in six Hours Time ; but it must be washed afterwards with the Decoction of Brann. *D. Palmer.*

In the Epilepsy it is proper to cherish the distorted Parts with, especially with spiritous Spices, but chiefly with the Spirit of *Scurvy-grass* ; by which I can boast that I have often put the Enemy to Flight. *D. Soame.*

In the scorbutick Swelling of the Gums the Juice of *Scurvy-grass* mixed with burnt Alom is an excellent Remedy. Nor is *Prick-madam* or *Stonecrop* a whit behind this or any other in those scorbutick Distempers of the Gums ; for the Decoction of it with

Alom and Honey is a noble Experiment used for a Gargle. *Hulse.*

Of this Herb are prepared a Conserve, a Water and a Spirit ; and the Juice is of more Efficacy than either the Syrup or the Extract ; in the Preparation of which the Spirit and the volatile Salt, in which the Force and Vertue of an Antiscorbutick consists, fly away. For which Reason *Scurvy-grass* will not bear either Boiling, Fermentation, or Drying, because of the volatile Salt, that flies away in those Operations. And the Spirit is better distilled from it without Fermentation, in the following Manner.

Take of *Scurvy-grass* what Quantity you please, with the fresh Leaves, not bruised or cut, but whole, pour upon them common Spirit of Wine, even tho' it be very little rectified, and distil it *per vesicam* : pour this upon fresh *Scurvy-grass*, and then repeat the Distillation with fresh *Scurvy-grass*, then rectifie it *per Balneum Mariæ* ; and thus you will have a very strong Spirit of *Scurvy-grass*, which you may put by either by it self for Use ; or you may thereof make an Essence, by adding a sufficient Quantity of the fresh Juice of *Scurvy-grass*, and a little Sugar-candy : Or you may make of it the *Eleosaccharum Cochleariæ* of the distilled Oil of *Scurvy-grass* and Sugar. The Infusion of the Whey of Goat's Milk in which *Scurvy-grass* Leaves have been cut, is indeed a common Medicine, but an excellent one in a Scurvy arising from salt Humours, and in Tumours arising from adust Humours, in which we apprehend an Afflux of atrabilarious Matter. For it cuts and attenuates that thick Blood, and thus renders it capable of being expelled. From this are likewise prepared antiscorbutick Waters, and a Water against the Rottensness of the Teeth, the Composition of which being too long to be described in this Place, we must refer the Readers to Dispensatories for Satisfaction.

The 8th Species has much the same Vertues and Qualities with the Garden *Radish*, but stronger. It warms, dries, cuts and attenuates : It cuts tartarous Mucilage and tough Humours, causes Vomiting if the Juice or Infusion of it be taken warm with Vinegar and Honey and Water drunk upon

it; and is a Specifick for the Scurvy. It expells the Stone, and provokes the Courses. It is good in tertian or quartan Agues, applied externally, the Juice of it with the Oil of Pepper being anointed on the Back, or applied to the Pulse with Salt, or laid to the Navel, till such time as it causes an Itching.

It is used in Sauces for seasoning of Meat, but it hurts the Head. It forcibly expells the Stone as well as provokes Urine.

The common People of Limosin eat the Roots of this Plant preserved in Oil, either fried, boiled or otherwise prepared, having first macerated them in Water to take away the Acrimony.

Thomas Bartholine praises and extols the Vertues of Horse-radish in the Stone from Experience. He affirms, that the Juice of Horse-radish dissolved a calculous or stony Substance, that was taken out of a human Body.

There is made an excellent antiscorbutick Mixture of this and other antiscorbutick Ingredients, in the following Manner: Take of Horse-radish cut into Slices two Ounces, of Garden Scurvy-grass two Handfulls, of Water-cress one Handful, of Scurvy-grass and Garden Cress of each one Ounce, of the Decoction of Barley one Pound, of Rhenish Wine six Ounces; these being cut and bruised, let them stand twelve Hours in a warm Place, shut up in a Vessel well stoppt; when you have strained it add of the Spirit of Norwegian Mulberries four Ounces, of the fresh Eleosaccharum of Citrons as much as is necessary: Then mix them. The Dose is four Ounces Morning and Evening: To which you may add some Drops of the Tincture of Bezoar.

TABLE CII. Fig. 3.

GENUS III.

Thlaspidium, Bastard Nithydate-mustard.

Thlaspidium is a Plant with a Flower in Shape of a Cross A, consisting of four Leaves B: Out of whose Flower-cup C, rises the Pointal D, which afterwards

turns to a double, smooth Fruit EF, composed of two Parts GH, that are separated by an intermediate Partition or Midriff I, each of which K, swells with a Seed L, which is generally flat and oblong M.

The Species of this Plant are,

1. *Thlaspidium Monspelienfe, Hieracii folio hirsute. Montpelier Thlaspidium, with a hairy Hawk-weed Leaf. Thlaspi bifcutatum, asperum, Hieracifolium & majus. C. B. Pir. 107. Lunaria bifcutata. J. B. 2. 935. Thlaspi parvum, Hieracifolium, five Lunaria lutea, Monspelienfium, & Leucoium luteum, marinum, & Bifcutella. Lob. Icon. 214.* This is the *Thlaspi clypeatum, Hieracifolium majus* of Parkinson. **Buckler-mustard.**

This *Thlaspidium* has several slender Stalks a Foot or nine Inches high rising from the same Root, which are furnish'd with one or two Leaves at the Roots of the Branches; for the greatest Part of them rise immediately from the Root, spreading upon the Ground, a Palm long or somewhat less, a little above half an Inch broad, pretty thick, dy'd with a deep Green, wav'd at the Sides, rugged, and rough with short Hair on both Sides. On the Tops of the Stalks and Branches stand small yellowish Flowers in Heaps, adhering to very small Foot-stalks; and these are succeeded by very beautiful foliaceous, double Husks in the Shape of a Buckler, adhering to a Tenon that sticks out beyond the little Shield, in each of which is contain'd one single Seed, pretty broad, orbicular, flat, and reddish, of the Taste and Figure of purple and white *Leucoium* rather than of *Cress*. The Root shoots down deep into the Earth, being moderately big, continuing for several Years, and retaining the Leaves the whole Winter.

I have observ'd it in many Parts of Germany, Italy, Sicily and France, flowering in May, June, and the other Summer Months. Ray.

2. *Thlaspidium hirsutum, calyce floris auriculato. Hairy Thlaspidium, with an auriculated Flower-cup. Leucoium montanum, flore pedato. Col. Part 2. 61.*

3. *Thlaspidium annuum, flore pallide luteo. Annual Thlaspidium, with a pale yellow Flower. Thlaspi bifcutatum, flore sulphureo. Hort. Oxon. Thlaspi bifcutatum, annuum, asperum. H. R. Par.*

This

This Species has hairy and whitish Flowers, not of a deep green Colour, as in the common *Thlaspi bifcutatum*. The Flowers are likewise dy'd with the Colour of Sulphur, and not yellow as in the other. Besides, the Root is annual, and not lively as in that. Q. Whether this be not the *Leucocium Alyssoides umbellatum montanum* of Columna?

4. *Thlaspidium Raphani folio*. Radish-leaf'd *Thlaspidium*. *Thlaspi bifcutatum*, *Raphani* aut *Irionis folio*. Bocc. Rarior. Plantar. 45.

This agrees with the other Species of *Thlaspi bifcutatum* in Stalk, Flower, and Fruit: It differs only in the Leaves which resemble the Leaves of *Radish* both in Form and Size, or rather those of *Irion*. It has a very slender and weak Root, from which frequently rise several small Stalks. This Plant is annual.

It grows up in great Plenty about *Palermo*, *Gergento*, and *Marseilles*, in uncultivated and rugged Places.

5. *Thlaspidium fruticosum*, *Lucoii folio*, semperflorens. Shrub *Thlaspidium*, with a *Leucoium* Leaf, and always flowering. *Thlaspi latifolium*, *platycarpon*, *Lucoii foliis*. Bocc. rarior. Plant. 55. This is the *Thlaspi fruticosum Persicum foliis* Keiri. Zanoni.

From a long Root, which is pretty thick, and shoots down into the Earth a great many small Fibres, rise, as on a Turf, many long, thick, smooth Leaves, of a faint green on the upper Side, and somewhat paleish underneath, (a small, slender, and scarce perceivable Nerve running along the Middle) and roundish at the End: Among which rises up a Stalk a Foot long, clothed with like Leaver, but smaller, ranged alternately at the Joints, which splits it self into many Branches; and on the Tops of the Branches come forth many white Flowers Umbrella-fashion, with two large Leaves, and two smaller by one half.

In the Middle of these appear many reddish *Stamina*, tipp'd with so many yellow Chives. The Smell of the Flower is pretty agreeable, much like that of the black *Violet*. When the Flowers vanish, they leave behind them broad Husks in the Shape of *Bucklers*, ending in a blunt Point, of an

obscure Colour, square towards the Foot-stalk, divided in two, containing flat broad Seeds, of a *Gnamon* Colour, and bitter, biting and poignant to the Taste, like *Mustard*.

It flowers the whole Summer, but more plentifully in the Spring, while the cold Weather continues. It grows wild in *Persia*.

6. *Thlaspidium fruticosum*, *Leucoii folio* variegato, semperflorens. Shrub *Thlaspidium*, with a variegated *Leucoium* Leaf, and always in Flower.

7. *Thlaspidium Anchusæ folio*. *Alkanet*-leaf'd *Thlaspidium*. *Thlaspi bifcutellatum*, *luteum*, *Anchusæ foliis*. Bar. Icon. Bocc. Mus. Part 2. Tab. 122. *Thlaspi bifcutatum*, *Anchusæ foliis*. Ejusd. 167.

It produces hairy, narrow Leaves, like those of the larger yellow *Alkanet*. It rises a Span high above Ground.

8. *Thlaspidium Apulum*, *spicatum*. Spik'd *Thlaspidium* of *Apulia*. *Fondrabe Apula*, *Alyssoides*, *spicata*. Col. Part 1. 285.

9. *Thlaspidium montanum*, *angustifolium*, glabrum. Parrow-leaf'd, smooth, mountain *Thlaspidium*.

10. *Thlaspidium Alpinum*, *pumilum*, *asperum*. Dwarf, rugged *Thlaspidium* of the Alps.

11. *Thlaspidium Apulum*, *incanum*, *floribus ex albo purpurascens*. Hoary *Thlaspidium* of *Apulia*, with white purplish Flowers.

For the Vertues of this Genus, you must consult the *Thlaspi*; because they have much the same Properties and Qualities, as they have a near Resemblance to one another: and no Body ever distinguish'd them into different Genus's before Mr. *Tournesort*; who was determin'd to this from the Difference he found in their Flower and Fruit: For the rest, their whole Habit, Make and Countenance do sufficiently evince their belonging all to the same Family.



Nasturtium. *Cress.*



TABLE CIII. Fig. 1.

GENUS. II.

Nasturtium, *Cress*.

Cress is a Plant with a Flower in Form of a Cross A, consisting of four Leaves: Out of whose Flower-cup B, rises the Pointral C, which afterwards turns to a roundish Fruit DK, which is smooth, divided into two Cells H, by the intermediate Partition EN, obliquely placed with Respect to the Valves FG, LM, and furnish'd with Seeds I, that are generally smooth. To these Marks must be added, That the Leaves O, are cut into many Parts, by which *Cress* is distinguish'd from *Thlaspi*.

The Species of *Cress* are.

1. *Nasturtium hortense*, vulgatum. C. B. Pin. 103. Common, Garden Cress. *Nasturtium vulgare*. J. B. 2. 912. *Nasturtium hortense*. Dod. Pempt. 711.

The Root of this *Cress* is white, ligneous, single, and sometimes divided into many Parts and scurulous, capillated with small Fibres, not so acrid as the Leaves, which are cut into small Dents: Such as are at full Growth and upon the Stalks, are either divided like the Leaves of *Rocket*, or are entire and oblong; with an acrid biting Taste, and much used in Sallads. The Stalk is commonly single (sometimes there are several) taper, smooth, firm, divided into many Wings, branch'd from the very Bottom, and very fruitful in a numerous Sub-division of small Branches, covered over with a Sort of grey Meal, which may be easily wip'd off. The little Flowers stand upon the Tops of the Stalk and Branches, being tetrapetalous, i. e. consisting of four Leaves, of a Colour betwixt white and a pale red, and resting upon short Foot-stalks, which while they blow successively, the Shoots, which are loaded with Seeds, run out into long Spikes. The Seed is yellow or reddish, in Pods or small Seed vessels, which are flat, roundish, like those of the commonest *Thlaspi*, and slit on the upper Side. Each Seed-vessel is divided into two

Cells, containing only two Seeds, viz. one in each Cell.

It flowers in May and June, and when the Seed is come to full Ripeness, it withers from the very Root. Besides this, there are also two other Species or Varieties of *Garden Cress*, one with an entire smooth Leaf, which J. Baubinus calls *Broad-leav'd Garden Cress*, or the *Cress* of *Dioscorides*, &c. Another with a curl'd Leaf, which the same J. Baubinus calls *Curl'd Garden Cress*, which follow in their due Order.

2. *Nasturtium hortense crispum*. C. B. Pin. 104. *Curl'd Garden Cress*. *Nasturtium hortense*, *crispum*, *latifolium* & *angustifolium*. C. B. Prodr. 43 & 44. *Nasturtium crispum*. J. B. 2. 913.

Curl'd Cress grows like the ordinary *Garden Cress*, and differs from it only in the Leaves, which are of two Sorts, the one having broad Leaves cut, and roundly dented and curl'd about the Edges, every one by it self on a long Foot-stalk: The other consisting of many smaller Leaves, placed over against one another, upon a middle Rib, each Part whereof is in the same Manner cut in, and curl'd as the other. The Flowers are of the same Colour with the common *Garden Kind*, and so is the reddish Seed also; and the Plant perishes every Year, after the Seed is ripe, like the other.

3. *Nasturtium hortense*, *crispus*, *angustifolium*. Mor. Hist. Oxon. Part 2. 301. More curl'd, narrow-leav'd *Garden Cress*.

4. *Nasturtium hortense latifolium*. C. B. Pin. 103. *Broad-leav'd Garden Cress*. *Nasturtium latifolium*, *Dioscorideum*. J. B. 2. 913.

5. *Nasturtium sylvestre Dalechampii*. Lugd. 655. The wild *Cress* of *Dalechamps*. *Thlaspi umbellatum Nasturtii folio*, *Monspeliacum*. C. B. Pin. 106. *Thlaspi umbellatum*, *tenuiter diviso folio*, *amarum*, *Narbonense*. J. B. 2. 925.

This Species is very much like the *Thlaspi umbellatum*, *arvense*, *amarum*; having pretty thick Leaves, with small Jaggs; almost the same Flowers, but smaller; being half a Span high, with several firm Stalks divided into small Branches. The Root single, pretty thick, and parted into Fibres. Thus far J. Baubinus, who describes at length a Plant which grew up from a Seed which

was sent him from *Montpelier*, under the Name of *Tblaspi umbellatum*, in these Words:

It was sown last Year, and held out the whole Winter; and the following Year, about the Beginning of *April*, it first began to shoot up from one Root a great many little channell'd Stalks, with a long Series or Train of Leaves up to the very Top of the Stalk. The lower Leaves are supported by a Foot-stalk an Inch long, ending above in four pretty thick and broad Portions, which are furrow'd in the Middle. The middle and topmost Leaves stand upon Foot-stalks about two or three Inches long, and differ in the unequal Number of their Notches in Proportion to the Length or Shortness of the Foot-stalk; so that the longer Foot-stalks consist of four or five Portions placed over against one another at unequal Distances; but the shorter ones consist sometimes of two Portions, (but rarely,) sometimes of three, after the Manner of *Tresnit*, sometimes of four, and sometimes of five, (but seldom,) and are of an unequal Length. It began to flower about the End of *May*. In all other Respects it agreed with *Cress*.

6. *Nasturtium sylvestre, tenuiter incisum, minori fructu.* Wild Cress cut into small Jaggs, with a small Fruit. *Iberis Nasturtii folio.* C. B. Pin. 97. *Iberis.* Mart. 293.

This Plant rises up with a round Stalk about two Foot high, spread into several Branches, whose lower Leaves are somewhat larger than the upper; yet all of them cut or torn at the Edges, somewhat like *Garden Cress*, but smaller. The Flowers are small and white, growing on the Tops of the Branches, where afterwards grow Husks like those of *Cress*, with smaller, brownish Seed in them, stronger and more biting to the Taste than *Cress*. The Root is long, white and woody.

7. *Nasturtium sylvestre, tenuissimè incisum.* Wild Cress with very small Jaggs. *Tblaspi Iberidis-folio, tenuissimè diviso.* Mor. H. R. Bles.

8. *Nasturtium orientale, foliis inferioribus Millefolium, superioribus Persiliatam referentibus.* Oriental Cress, whose lower Leaves resemble *Milfoil*, and the upper ones *Thorough-wear*. *Tblaspi vero di Dioscoride, primo.* Zan. 193.

Nature sports it self wonderfully in the Production of the lower Leaves of this Plant, that come forth near the Surface of the Earth, as also in that of the upper ones that adhere to the Joints of the Stalk and Branches: For it thrusts forth its first Leaves very close to one another, resting upon long Ribs, whose Lobes adhere alternately to single Ribs, and which are divided into small Jaggs like the Leaves of the *Hypocoum*, from the Root up one third Part of the Stalk. Then certain Leaves with a broader Bottom encompass the Stalk, and are divided into several Jaggs; but the upper Leaves are whole and entire, pointed, and encompass the Stalks and Branches at every Joint after the Manner of *Thorough-wear*, which is not observed in any other Species of *Tblaspi*. On the Tops of the Stalks and Branches stand small white Flowers, to each of which succeeds a single Husk or Pod, that is round, and divided in two. These Seed-vessels or Bags grow along the Tops of the Branches Spike-fashion, leaving behind them (after the Seed is ripe and the little Valves are fall'n) pellucid, dry, middle Partitions adhering to the Foot-stalks, as in the other Species.

This Plant grows not only in *Persia*, but likewise in *Syria*.

9. *Nasturtium sylvestre, capsulis cristatis.* Wild Cress, with crested or tufted Seed-vessels. *Ambrosia campestris, repens.* C. B. Pin. 138. *Coronopus Ruellii, sive Nasturtium verrucosum.* J. B. 2. 919. *Cornu Cervi alterum, repens.* Dod. Pempt. 110. Swines-Cresses.

The Stalks of this Plant lye along upon the Ground, and never rise up, and are about a Span long, branch'd and stiff; along which are stretch'd jagged Leaves, cut like the Leaves of *Cresses*, and having much the same both Taste and Smell. The Flowers grow along the Stalks, and are small and white. The Seed-bags are rugged, uneven, resembling little Burrs, and just like little Hedg-hogs full of Prickles, in each of which is contain'd one black Grain, about the Bigness of a *Grape Stone*. The Root is longish, and pretty thick.

It grows in watery Places, and by the High-ways, both in *England* and in foreign Countries.

10. *Nasturtium Alpinum*, tenuissime divisum. C. B. Pin. 105. Cress of the Alps, divided into very small Jaggs. *Nasturtium Alpinum*, tenuissime divisum. J. B. 2. 918. *Cardamine Alpina*, tertia, minima. Clus. Hist. 128. This is the *Cardamine Alpina minima* of Parkinson.

Sometimes this Plant grows three Inches and sometimes nine Inches high, tho' *Clusius* says but one Inch. It has very small Leaves adhering to a Rib in Threes, Fives, and Sevens, [*Clusius* says they are green, of an acrid and burning Taste;] so that the whole Wing is not above half an Inch long sometimes, at other Times above two Inches long, with the burning Taste of *Cresses*. It has a great many little Stalks, and sometimes but one; on the Top of which many white Flowers stand in Heaps, large in Proportion to the Plant, and enclosed within four Leaves like the smallest *Shepherd's-purse*. The Root is white, thickish, long, and furnish'd with long Fibres.

Clusius found it in Flower in the Month of *August*, among the Rocks on the very Top of the Hill *Sneberg*: And *Camerarius* says it is to be found on the Mountains of *Tirol* and *Salzburg*.

In the Plant which Mr. Ray observ'd on Mount *Fura*, there succeeded to the Flowers oblong, flat, pointed Husks, like those of the common *Paronychia*, but smaller. Perhaps they may swell and grow thicker when they are ripe.

11. *Nasturtium pumilum*, vernum. C. B. Pin. 105. Edit. 1. Vernal dwarf Cress. *Cardamine pusilla*, saxatilis, montana, *Discoides*. Col. Part 1. 273.

From a single, white, ligneous Root, furnish'd with pretty big Fibres, there rises sometimes one Stalk, and sometimes more, branch'd from the very Bottom, sometimes a Palm high, but generally only two or three Inches, round, clothed with Leaves placed alternately at the Rise of the Branches. Both the Leaves which rise at the Root, and those which stand upon the Stalk, are composed of seven, eight or more Conjunctions of Finns, adhering to the middle Rib, with an odd Leaf at the End. These little Finns are of the Shape of a *Rhomboides*, and placed at a good Distance from each other. The Flowers which grow upon the

Tops of the Stalk and Branches, are ranged in the same Order as in the rest of this Genus, being very small, white, consisting of four Leaves, with little narrow Stamina in the middle. The Seed-vessels are like those of the smaller *Thlaspi*, flat, gibbous or convex without, and hollow within, containing a small, reddish Seed.

It flowers in the Beginning of *May*, and when the Seed is ripe, (as much as can be guess'd from the Habit and Make of the Plant) it dries and withers. Mr. Ray observ'd it upon a Hill call'd *Salva*. *Columna* found it on shady Mountains, and in moist earthy Places.

12. *Nasturtium petraeum*, foliis *Bursæ Pastoris*. C. B. Pin. 104. Rock Cress, with *Shepherd's-purse* Leaves. *Bursa pastorei*, minor, foliis incis. Ejuld. 108. *Bursa pastorei*, parva, folio glabro, spisso. J. B. 2. 937. *Nasturtium petraeum*. Tabern. Icon. 451. *Pastoria Bursa minor*. Dod. Pempt. 103.

This Plant has a white, ligneous, single Root, furnish'd with a few pretty large Fibres, with a faint Taste of *Cress*. The Leaves that first break forth are single, round and small, the rest are a little jagged like the Leaves of *Shepherd's-purse*, thick, smooth, scarce the fourth Part of an Inch long, and thick-set from the Root. It produces several Stalks half a Foot or nine Inches high, sometimes naked, at other Times cloath'd with small Leaves rang'd in no Manner of Order, and not branch'd. A great many little Flowers on the Tops of the Stalks, which are tetrapetalous, i. e. consisting of four Leaves, blow successively. To which succeed smaller and rounder Husks than in the common *Shepherd's purse*, containing generally two Pair of Seeds.

It grows in this Country commonly in a sandy, and sometimes in a stony Ground.

13. *Nasturtium pumilum*, supinum, vernum. Bot. Monsp. Dwarf, leaning, vernal Cress.

This differs from the 11th Species chiefly in its little Branches lying along upon the Ground, in the unequal Divisions of its Leaves, and in its last and odd Leaf being larger. The Flowers and Husks are the same.

14. *Nasturtium minimum*, vernum, foliis tantum circa radicem. Bot. Monsp. The smallest

Smallest vernal Cress, with Leaves only about the Root. *Nasturtium minimum, Monspelienfe, caule aphylo, Thlaspi minus monspeliensium.* C. B. Pin. 108.

In this Species the Leaves grow in a Circle only about the Root, being gently cut, and some of them whole and entire. It produces one Stalk, and sometimes two, two Inches high; on the Top of which stand little white Flowers, to which succeed little Husks as in the *Thlaspi* or *Mithridate-mustard*, which are pretty big for the Size of the Plant.

It flowers in the Beginning of Spring in the Entry into Grammont Grove.

This Plant is call'd *καρδαμον* Cardamon by *Diſcorides*. Lib. 2. c. 185. *Theoph.* 17. Hist. 1. either because *καρδαμον*, it keeps the Head in Order, i. e. by its Acrimony purges and cleanses it; for *Pliny* tells us that the blackest Sort of Cress purges away the noxious Humours from the Head: Or that Name was given it from *καρδία*, quod cordatos facit, because it cherishes and comforts the Heart: For the *Greeks* said, that they who eat Cresses received new Vigour and Spirits, and that they had their Understandings cleared up. And hence came the Proverb upon the Lazy and Slothful, *Eat Cresses.* *Pliny* alluded to this when he said, That the very Word Cardamon implied in it Vigour and Life, and became proverbial, as if it awakened one from a listless and languid Condition. But it was called *Nasturtium*, quasi *Nasitortium*, quod *nasum torqueat*, because it teazes and torments the Nose, the Smell and Acrimony of the Seed being proper to provoke Sneezing.

Tho' all the Species here described have very near the same Vertues and Qualities, yet the first Species is mostly in Use. Both the Herb and the Seed are acrid, hot and dry, but especially the latter; for which Reason it attenuates, opens and cleanses. Its chief Use is in the Swelling of the Spleen, in the Obstruction of the Terms, and for expelling of the dead *Fetus*. It cuts the tartarous Mucilage or tough Matter in the Lungs, and is very good in the Scurvy. The Seed is very effectual for bringing out the Measles: It is used externally for purging the Head from Phlegm, to provoke Sneezing, and ripen hard Swellings. Bruised

and fry'd with Hog's-lard it cures foul Scurfs and Scabs on the Head or any other Part of the Body.

It is used every where for seasoning of Meat and for Sauce. It likewise comes to Table in Sallads in the Spring with other Herbs, with Oil, Vinegar, and Salt. It qualifies the Coldness of *Lettuce*, comforts the Stomach by its Heat, and promotes Concoction.

The *Dutch* frequently eat it in May with Bread and Butter. It does good Service in that terrible Distemper which they call the Scurvy: Nor is its Vertue and Power less in curing of this Disease than that of *Spoonwort* and *Water-Cresses*.

There is nothing better in comatose or lethargick Fits than this Cress, either boil'd, or eaten in Sallads, according to the Observation and Experience of *Forestus*. *Observ.* Med. lib. 10. Obs. 39.

Simon Paulus observes from *Pareus*, that there is no Remedy whatsoever so speedy and effectual for the filthy Scab and Scurf upon Childrens Heads, as *Garden-Cress* bruised and fry'd with Hog's-lard; for it operates so effectually that it makes the Scurfs fall off in 24 Hours, and if the Use of it be continu'd longer it works a perfect Cure, as that Author learnt by Experience.

TABLE CIV. Fig. 1.

GENUS V.

Lepidium, Dittander, or Pepperwort.

Dittander is a Plant with a Flower in the Form of a Cross A, consisting of four Leaves B: Out of whose Flower-cup C, rises the Pointal D, which afterwards turns to a Fruit in the Shape of a Lance, divided into two Cells by an intermediate Partition I, to which adhere Valves GH, on both Sides, and commonly furnished with oblong Seeds K.

The Species of this Plant are,

1. *Lepidium latifolium.* C. B. Pin. 97. Broad-leav'd Dittander. *Lepidium Pauli.* J. B.

Lepidium. Dittander, or Peperwort.

Fig. 1.

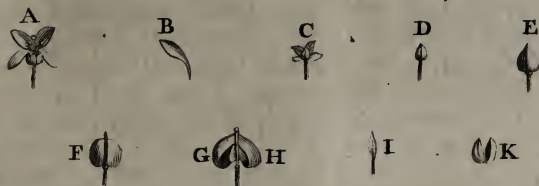


Fig. 2.

Burfa Pastoris. Shepherds-purse.

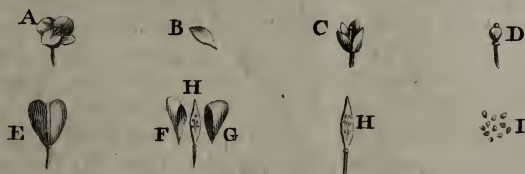


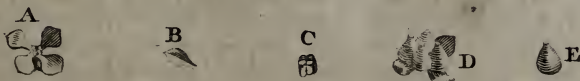
Fig. 3.

Erucago.



Fig. 4.

Potamogeton. Pondweed



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THE JOURNAL OF

JOHN B. HARRIS

OF THE

AMERICAN GEOGRAPHICAL SOCIETY

1891	Jan. 1	Left New York for	St. Louis
	Jan. 2	Arrived St. Louis	
	Jan. 3	Left St. Louis for	St. Paul
	Jan. 4	Arrived St. Paul	
	Jan. 5	Left St. Paul for	Minneapolis
	Jan. 6	Arrived Minneapolis	
	Jan. 7	Left Minneapolis for	Duluth
	Jan. 8	Arrived Duluth	
	Jan. 9	Left Duluth for	Superior
	Jan. 10	Arrived Superior	
	Jan. 11	Left Superior for	Itasca
	Jan. 12	Arrived Itasca	
	Jan. 13	Left Itasca for	Grand Rapids
	Jan. 14	Arrived Grand Rapids	
	Jan. 15	Left Grand Rapids for	St. Paul
	Jan. 16	Arrived St. Paul	
	Jan. 17	Left St. Paul for	St. Louis
	Jan. 18	Arrived St. Louis	
	Jan. 19	Left St. Louis for	New York
	Jan. 20	Arrived New York	

J. B. 2. 940. *Lepidium Plinii*. Dod. Pempt. 716. This is the *Lepidium vulgare* five *Piperitis* of *Parkinson*.

The Root is above the Thickness of one's Finger, white, of a biting and warm Taste that soon vanishes, and creeps under Ground. It sends up several Stalks, two Cubits high, taper, smooth, full of Pith, branched, smaller than one's little Finger, covered with a certain grey Meal or Dust, which may be easily wiped off. The Leaves are long and broad, ending in a Point, like *Citron* or *Lemon* Leaves, but very often larger, smooth, fat, of a dark green Colour, growing on the Stalks alternately, and jagged round the Edges. Those that grow immediately from the Root, and on the Bottom of the Stalk, are sustained by long Foot stalks. The Flowers, which are very Small in Proportion to the Plant, consist of four Leaves, are white, grow close together and in great Numbers, resting upon very slender Foot-stalks on the Tops of the Stalks and Branches. They are succeeded by very small flat Seed-vessels, with a sharp Point, containing the Seeds.

Its creeping is very troublesome to the Gardeners. It rarely brings its Seed to Maturity. It grows on the Brinks of Rivers, but is rarely to be met with in this Country; viz. near the Bridge of *Hirke* at *Colchester*, at *Cambledown*, near *Heybridge*, where it grows in great Plenty, and elsewhere.

2. *Lepidium*, humile, incanum, arvense. Low, hoary, Field Distander. *Draba umbellata*, vel *Draba major*, capitulis donata. C. B. Pin. 109. *Draba multis*, flore albo. J. B. 2. 939. *Arabis* five *Draba* & *Nasturtium Babylonicum*. Lob. Icon. 224.

This Plant scarce rises above a Cubit high, with a small, round, channelled, firm Stalk, rising from a ligneous, whitish, small Root, spreading far and wide, with some Fibres at it. The Leaves alternately embrace the Stalk with their Bottom, being oblong, an Inch and an Inch and a half broad, waved, and of an Ash-green Colour. The Tops of the Stalks are spread into many thick-set Branches, which are full of Leaves; on which are set white Flowers in Umbells or broad Tufts; to which succeed Seed-vessels, resembling a little Heart, thrusting out of a Cone a small Pointal, and in its two little

Cells containing as many small, reddish Seeds.

It grows commonly on the Sides of Fields in *Germany*, *Italy* and *France*. There are no Borders of Fields round *Vienna*, and consequently in all the lower *Austria*, which are not covered, says *Cussius*, with this Plant, which after some Time creeps far into the Fields themselves. It flowers in *May* and the Beginning of *June*; and the Seed is ripe about the End of *June*.

3. *Lepidium humile*, minus, incanum Alepicum. The smaller, low, hoary Distander of *Aleppo*. *Draba Chalepensis*, repens, humilior, foliis minus cinereis, quasque viridibus. Mor. Hist. Oxon. Part 2. 314.

This Plant is distinguished from the common *Draba* in three Respects. 1. In its Smallness, for it is lower than it. 2. In its Leaves being less Ashy and as it were green. 3. The Stalks are loaded with more Seed-vessels, which also bulge out on both Sides, which coming forth thus copiously bring a greater Quantity of Seeds to Perfection and Maturity; whereas in the *Arabian Draba* the Seeds rarely come to be ripe, by Reason of this Plant's creeping too much.

It grew at *Oxford* from a Seed sent from *Aleppo*. It flowers in *May* and the Beginning of *June*.

4. *Lepidium gramineo folio*, five *Iberis*. Grass-leaved Distander, or *Scitica* Cress. *Iberis latiore folio*. C. B. Pin. 97. *Iberis*. J. B. 2. 918. Dod. Pempt. 714.

It produces several Stalks above nine Inches high, hollow with thick-set Wings, from a white ligneous Root, pretty thick, and furnished with a few Fibres. The Leaves that appear first have long Foot-stalks, are half an Inch broad, two or three Inches long, and jagged at the End: But the upper Leaves, and such as grow upon the Stalks and Branches resemble the Leaves of *Toad flax*, and are narrow, sharp-pointed, without any Foot-stalk, and having no Dent or Notch, with the burning Taste of *Cress*. The small Seed is contained in little oblong Bags, whose Valves are parted by a little Membrane, succeeding to white Flowers gathered in Heaps upon the Tops of the Branches, and resembling *Cress* Flowers.

It grows in uncultivated ruinous Places, and by the Way-side, almost every where, both

both in *Germany* and *Italy*, in *Sicily* and in the *South of France*.

5. *Lepidium capillaceo folio, fruticosum, Hispanicum.* Spanish, shrub Dittander, with a capillaceous Leaf.

6. *Lepidium orientale, Nasturtii crispi folio.* Oriental Dittander, with a curled Cress Leaf.

7. *Lepidium orientale, Nasturtii folio, caule Vesicario.* Oriental Dittander, with a Cress Leaf, and an Alke'tengi Stalk.

8. *Lepidium orientale, Caryophylli folio.* Oriental Dittander, with a Clove-gilly-flower Leaf.

This Plant is called *Lepidium* from the Greek Word *λεπίς Squama* a Scale, because it is believed to take off Spots and Scurfs from the Face.

The Leaves, says *Dioscorides*, have an acrid and heating Quality; for which Reason the bruised Herb is a present Remedy for the *Sciatica*, if that and the Root of *Elecampane* be rubbed upon the Part affected for four Hours. It is good also in the same Manner for the Disease of the Spleen, and cures the Leprosy. The Root hung at the Neck, or tied to the Arm, according to *Pliny*, is thought to cure the Tooth-ach.

This Herb also mends the Deformities and Discolourings of the Skin, and helps to remove Marks, Scars, Scabs, or the disagreeable Marks of Burning by Fire or Iron. *Parkinson* says, That the Women of *Bury* in *Suffolk* do usually give the Juice of this Plant in Ale, to be drunk by Women in Labour, in order to procure them a speedy Delivery.

TABLE CIV. Fig. 2.

GENUS VI.

Bursa pastoris, Shepherds-purse.

Shepherds-purse is a Plant with a Flower in Form of a Cross A, and consisting of four Leaves B: Out of whose Flower-cup C, rises the Pointal D, which afterwards turns to a smooth Fruit E, cut on the upper Border, resembling as it were an inverted

Triangle called *Isosceles*, divided into two Cells by an intermediate Partition H, to which the Valves F G, on both Sides adhere, and furnished with small Seeds I.

The Species of *Shepherds-purse* are,

1. *Bursa pastoris major, folio non sinuato.* Great *Shepherds-purse*, with whole and entire Leaves. C. B. Pin. 108.

This great *Shepherds-purse* has a small Root with some Fibres at it, from whence rises commonly but one small Stalk a Span long, branched into two or three Parts, whose lower Leaves are whole without Division, having long Foot-stalks to them; and those upon the Stalks encompass them at the Bottom. The Flowers are white, and the Seed-vessels flat.

2. *Bursa pastoris major, folio sinuato.* Great *Shepherds-purse*, with a waved Leaf. C. B. Pin. 108. *Bursa pastoria.* J. B. 2. 936. *Pastoria bursa.* Dod. Pempt. 103. This is the *Bursa pastoris major vulgaris* of *Parkinson*.

Sometimes this Plant rises a Palm, sometimes a Foot, or a Cubit, and sometimes even a Cubit and a half high. It stands upon a small, upright, white fibrous Root, of a sweetish and nauseous Taste; from whence come forth oblong Leaves, that are sometimes whole, but generally deeply jagged on both Sides, the Jaggs ending in sharp Points, almost after the Manner of *Dandelion*, somewhat hairy, with Foot-stalks an Inch long, (or rather dilated from a narrow Bottom,) whereas the upper ones that stand on the Stalks with a broad Bottom, do adhere to them without Foot-stalks, embracing them on both Sides with a Jagg or Auricle stretched forth; nor are they in the least jagged. Out of the Middle of the Leaves rises one, two, three, four or more Stalks, divided into little Branches alternately ranged, and the middle one thus divided from the very Root. The Tops of the Stalks and Branches run out as it were into long Spikes of Flowers resting upon small Foot-stalks half an Inch long. The Flowers are small, white, composed of four roundish Leaves not split in two, with little *Stamina* or Threads tipped with yellow Chives. When the Flowers fall, the Foot-stalks grow an Inch

Inch long. and sustain the Seed-vessels from a small Bottom ending in a little broad Purse split in two, standing out from the Stalk, and making right Angles with it, or bending a little downwards. There are many very small Seeds contained in each Seed-vessel, which are yellow or reddish when ripe.

It grows by High-ways in desert and uninhabited Places, in Court-yards, By-lanes, and among Ruines, and flowers the whole Summer, is in very good Plight, and brings forth perfectly ripe Seed.

3. *Bursa pastoris eleganti folio*, instar *Conopii repentis*. *Cam. Hort.* 32. *Shepherd's-purse*, with a beautiful Leaf, resembling the Leaf of creeping *Conopus* or *Swines Cresses*.

4. *Bursa pastoris media*. *C. B. Pin.* 108. *Middle Shepherd's-purse*. *Bursa pastoris, minor.* *Tabern. Icon.* 199.

5. *Bursa pastoris montana*, *Globularia* folio. *Mountain Shepherd's-purse*, with a *Mountain Daisy Leaf*. *Tblaspi alpinum*, *Bellidis ceruleae folio*. *C. B. Pin.* 106. *Tblaspi foliis Globularia*. *J. B.* 2. 926. *Tblaspi montanum*, *Bursae pastoris fructu, primum*. *Col. Part* 1. 276. This is the *Tblaspios albi supini varietas* of *Gerarde*; and the *Tblaspi montanum Glasii folio minus* of *Parkinson*.

It creeps far and wide with long thickish Roots, that are divided into several Knobs, which again creeping in their Turn take Root by sending down Fibres. The Leaves are spread upon the Ground or lying along upon it, being pretty numerous, somewhat resembling the Leaves of *Mountain Daisy*, with a Foot-stalk one or two Inches long, of a shining red Colour at their Rife, scarce a full Inch long, roundish, thickish, of a darkish green, especially the Winter ones, and of a bitter Taste. The Stalks are above a Palm high, taper and smooth; along which are stretched Leaves alternately, of an almost grey Colour, without Foot-stalks, embracing the Stalk with their Bottom, and pointed almost in the same Manner as the Leaves of the *Bursa pastoris persoliata*.

The very Top of the Stalk sustains very thick-set Flowers, not much unlike the Flowers of the *Iberis Fuchii*, large, milk-white, with several Chives concealed in a greenish Flower-cup: To which succeed

broad, flat Seed-vessels, resembling those of the common *Shepherd's-purse*, sending forth out of their Bottom little sharp Points; and containing a small, reddish, acrid and bitterish Seed.

This Plant grows very common on the hilly Pastures betwixt *Seetle* and *Malham*, and towards *Ingleborough* in *Yorkshire*.

6. *Bursa pastoris, orientalis*, *Cardamines folio*, *siliqua longissima, quadrangula*. *Oriental Shepherd's-purse*, with a bitter *Cress Leaf*, and a very long quadrangular Pod.

7. *Bursa pastoris, orientalis*, *Drabae foliis*, *siliquis cornutis*. *Oriental Shepherd's-purse*, with a *Draba Leaf*, and horned Pods.

It received its Name from the Form of its Fruit or Pods, which were thought to resemble a Shepherd's Purse.

It cools and dries, binds and constipates, and therefore is very proper in Bleeding at the Nose, spitting of Blood, a *Diarrhaea*, or *Dysentery*, pissing of Blood, and in the excessive flowing of the Terms. It is commonly used by the common People for closing up the Lips of Wounds, and not without Success; as also in Bleedings at the Nose, by putting it under the Arm-pits, or behind the Nape of the Neck. It is likewise frequently used in *Cataplasms*, (for chasing away of Agues), which are laid on the Wrist.

A Pessary made of Cotton and dipt in the Juice of it, thrust up the Nose will stop the Bleeding. Either the Juice or the Decoction of this Plant in red Wine, or River Water, in which red hot Iron has been extinguished, will cure a Lientery.

One Ounce of the Juice of the Plant pressed out, or two Ounces of the Broth of the dried Herb will cure a Pissing of Blood or a *Gonorrhoea*.

Shepherd's-purse not only cures Spitting of Blood, but even a *Gonorrhoea* without fail; which single Observation we owe to that famous and notable Practitioner. *Seberius* after *Tabernaemontanus*. *Sim. Pauli*.

The second Species here described is analysed by *Mr. Tournefort* thus: The ancient French Authors reckon that this Herb is somewhat saltish and deterfive. The Juice of its Leaves give a little Tincture of red to blue Paper; which gives us Reason to believe-

believe that in this Plant the *Sal ammoniack*, which is in the natural Salt of the Earth, prevails over the other Principles. This *Sal ammoniack* is dissolved in a considerable Portion of Phlegm, and is tempered by abundance of Earth and a little Sulphur. This Plant does not yield much Acid by a Chymical *Analysis*, for almost all that is drawn from it is alkaline. There are few Plants that afford so much volatile concrete Salt, more lixivial Salt, and more Earth. These Principles mixed together render *Shepherdspurse* proper for dissolving the Blood when it is thickened by adventitious Acids, which hinder it from circulating with its ordinary Swiftnes from the Arteries into the Veins; to which we may reduce the most Part of Fluxions. Besides, the Earth which is in

this Plant, easily imbibes the Serosities which occasion a Relaxation of the Fibres; and thus by the Consent of all Authors it is vulnerary and astringent; and it is likewise believed to be febrifugous and lenitive. The Juice of its Leaves drank, from four to six Ounces, is one of the best Remedies in any Loss of Blood, and even in Fluxions accompanied with an Inflammation. A Handful of it is boiled in lean Broth, and this is employed in *Ptisans*, in *Glysters*, and in *Cataplasms*. Its distilled Water has scarce any Vertue at all; for that is only the Flegm separated from the other Principles. You may find it almost at any time of the Year; for it propagates it self by Seed, towards the End of the Summer.

S E C T. III.

Of Herbs with a Cross Flower, whose Pointal turns to a Fruit that is divided into three or four Cells.

TABLE CIV. Fig. 3.

G E N U S I.

Erucago.

E*rucago* is a Plant with a Cross-Flower A, consisting of four Leaves B: Out of whose Flower-cup C, rises the Pointal D, which afterwards turns to a Fruit E, resembling a Sort of a four-corner'd and crested Club, divided commonly into four Cells F, and full of Seeds G, that are generally roundish and beaked.

There is but one Species of *Erucago* yet known, which is,

Erucago segetum. **Corn Erucago.** *Erucamonspelica, siliqua quadrangula, echinata.*
C. B. Pin. 99. *Sinapi echinatum.* Lagd. 647.
J. B. 2. 858.

This Plant sends up several Stalks, which are at first of a purplish Colour, a Foot or a Foot and a half high, round, channelled, rough, and spreading into great Branches. The lower Leaves are spread upon the Ground, oblong, narrow, hairy and rough; those on the Stalk grow in Pairs, or in Threes. The Flowers are small, consisting of four Leaves, in Form of a Cross, and of a yellow Colour. To these succeed Pods that resemble a Mass of Arms, garnished with strong Prickles, each of which contains three or four Cells, each of which again contains its own round, reddish Seed, which is commonly furnished with a small Beak. The Root is as long as the half of one's Hand, pretty thick, whitish, and garnished with several Fibres.

It grows in *Languedock* about *Montpelier*, among the Corn, and in other warm Places; and flowers in the Months of *March*, *April*, and *September*. Mr, *Ray* saw it likewise growing

growing among the Corn not far from *Lucca*, on the Way-side as you go from thence to *Pisa*.

This Plant, says Mr. Ray, is singular in its Kind, and differs from the Analogy of the other *Rapistras*, both with Respect to Flowers and Pods. It differs likewise from the rest of this Genus in its Leaves; for the lower Leaves, and such as come immediately from the Root, are very long, narrow, and cut in on both Sides to the very

middle Rib, after the Manner of the Leaves of *Wild-Succory*, viz. into triangular Segments, whose Basis adheres to the Rib; but the two opposite ones meet and join to one another, and make a Rhomboidal Figure.

It is called *Erucago* from *Eruca Rocket*, because it resembles it in several Respects.

This Plant, says *Lemery*, is incisive, attenuating, and is proper for rarifying the rough Phlegm of the Brain, and to provoke Sneezing.

S E C T. IV.

Of Plants with a Cross Flower, whose Pointal turns to a great many Seeds collected into a Head.

TABLE CIV. Fig. 4.

GENUS I.

Potamogeton, Pondweed.

Pondweed is a Plant with a Cross Flower A, consisting of four Leaves B, and without a Flower-cup. But the Pointal C, turns to four Seeds D, that are commonly oblong, and gathered into a Sort of a Head.

The Species of Pondweed are,

1. Potamogeton rotundifolium. C. B. Pin. 193. Round-leav'd Pondweed. Potamogeton rotundiori folio. J. B. 3. 776. Potamogeton spicata. Tabern. Icon. 739. This is the *Fontalis major latifolia vulgaris*, or Broad-leav'd Pondweed of Parkinson.

This Plant creeps under the Water with oblique, thick, round, jointed Roots, with long Distances between the Joints, and sending forth from the Joints small thick-set Fibres that dive down deep into the Slime or Earth. From the Joints of the Roots it puts forth Stalks or Twigs upon the Surface of the Water, which are very long, about the Thickness of a Blade of Corn, round,

jointed, and branched, with long Distances betwixt the Joints. At each Joint comes forth a single Leaf, which is grassy and narrow under Water, somewhat hollow on the upper Side, but round on the under Side, nine Inches long, ending in a Point; but after the Plant rises above Water, very different, viz. like a Plantain Leaf, of an oval Figure, with a blunt Bottom, but a sharp Point, shining with a pale Greenness, even round the Edges, and channelled with Nerves running lengthwise, not unlike the Leaves of *Water-Lilly*, and resting upon long Foot-stalks, which are sometimes a Palm or a Palm and a half long. At the Rise of the Spikes are two Leaves opposite to one another upon the Stalk. At the Rise of the Foot-stalk of each Leaf is placed a pellucid Membrane, two Fingers long, pointed, within the Foot-stalk of the Leaf, infolding the Stalk and the Bud, and even the Foot-stalk of the Spike, when there is any. The Flowers which are ranged in Spikes, two or three Inches long, rest upon a Foot-stalk as thick as the Stalks, a Palm long or better, composed of stameneous Flowers that are ranged Branch-fashion. Each Flower consists of four herbaceous Leaves, shaped like a Spoon, and turning inwards; in each of which are pretty large

H h h

Seeds,

Seeds, somewhat flat on the Sides, with a bunch back, of a pale green Colour, and sometimes purplish when fully ripe. There are eight Chives.

It grows very commonly in stagnating Water. It flowers and bears Seed in the Months of *June* and *July*.

2. *Potamogeton longo, serrato folio.* C. B. Pin. 193. *Wondweed with a long dented Leaf.* *Lapathum fluitans, longo, serrato folio.* F. B. 2. 988. *Potamogeton altera.* Dod. Pempt. 582. *Oxylophum aquaticum Dalechampii.* Lugd. 603.

It abounds with a great many small round Stalks, which are again divided into Branches. The Leaves are broad, oblong, pointed, adhering without Foot-stalks, encompassing the Stalk with their broad Bottoms, channelled with Nerves running lengthwise, set in alternate Order, except where the Spike of Flowers comes forth; for there they grow by Couples opposite to one another. The short Spike rests upon a pretty thick Foot-stalk an Inch and a half long: The Flowers and Seeds resemble those of the other Species.

This Plant lies generally under Water, with only the Top above. The Leaves are thin and pellucid; nor are there any thin Membranes on the Stalks and Branches, infolding them, as in the former Species.

3. *Potamogeton Alpinum, Plantaginis folio.* *Wondweed of the Alps, with a Mountain Leaf.* *Fontalis lucens, major.* J. B. 3. 777.

This Species creeps under Water almost in the same Manner as the first, sending down Fibres from the Root: But differs from it in its Stalks which have many Joints thick-set upon them; in its Leaves which are much longer, and somewhat narrower, all over shining (*viz.* such as are under Water; for such as appear above, which sometimes happens, resemble the Leaves of the first Species in Colour, Consistency, Shortness, and Nerves) and resting upon short Foot-stalks which are even on the upper Side; but such as are under Water are not narrow, as in that, like *Grass*, but broad. The Spikes of the Flowers are not much unlike, resting upon thick Foot-stalks a Palm long, and composed in like Manner of small, herbaceous, four-leav'd Flowers,

having smaller Leaves than that other; in which, as in the rest of this Genus, grow four naked Seeds, like those of the first Species, flat, pointed, and as it were three-corner'd, nor so gibbous or convex as in that. The Leaves which are under Water quickly wither and decay, so that the under and greatest Part of the Stalk becomes naked of Leaves. On the Leaves are seen a vast many small Fibres scattered over the Side, and composing Nerves. The Leaves are placed in the same Manner as in the rest of this Genus, *viz.* alternately, unless where the Spikes come forth, and there they are in Couples opposite to one another; and at the Rise of each of them is placed a longish Membrane, encompassing most of the Stalk, as in the first.

It flowers in the Month of *July*, and soon bears perfect Seed. It grows frequently in large and slow running Rivers.

4. *Potamogeton foliis latis, splendentibus.* C. B. Pin. 193. *Wondweed with broad and shining Leaves.* *Potamogeton altera Dodonæi.* J. B. 3. 778. *Potamogeton tertia.* Dod. Pempt. 582. See the Description of the second Species, which perhaps will agree better to this.

5. *Potamogeton foliis crispis, five Lactucararum.* C. B. Pin. 193. *Water Caltrops or Frogs Lettuce.* *Fontinalis crispa.* J. B. 3. 788. *Tribulus aquaticus, minor, Quercus floribus.* Ger. emacul. 824. This is the *Tribulus aquaticus minor*, prior of *Parkinson*.

It produces from the Root Shafts two, three, or more Cubits high, according to the Depth of the Water, small, of a scarlet Colour, smooth, knotted, which are tough and flexible when dry, divided at Top into several Branches, bearing at each Knor alternately single Leaves, sometimes two Inches long, and half an Inch broad, thin, and as it were transparent, so much curled and sinuated round the Edges, that they appear to be jigg'd, and are of a Sort of a green scarlet Colour: Foot-stalks above two Inches long, sustaining small white Flowers, in the Shape of a Grape, are thickish, and rise among the Leaves, which there always grow in Couples over against one another, different from the lower Leaves. To each of the Flowers commonly succeed four pointed or prickly Seeds sticking together, containing a little

little white Pich. The Shafts on the lower Part at the Joints shoot down small, oblong, white Fibres, by which they are strengthened and receive their Nourishment. The whole Plant lies under Water. It flowers in June and the Beginning of July.

Every little Flower is composed of four small roundish Leaves.

This Species grows very commonly in slow running Brooks.

6. *Potamogeton foliis angustis & undulatis*. Pondweed with narrow and undulated Leaves. *Tribulus aquaticus, minor, Muscicella floribus*. Ger. emac. 824. The lesser Water Caltrops or Frogs Lettuce.

From small Roots come forth many weak Branches a Foot long, thick set with Joints, not plain or flat, as in the former Species, but round. The Leaves are set at the Joints in Couples corresponding to one another, and are oblong, ending in a Point, green and pellucid, somewhat sinuated, bending or curling round the Edges. Three or four small Flowers joined together stand upon one Foot-stalk, in Shape and Colour somewhat resembling the Flowers of the *Muscicella Cordi*; to which succeed small warped Seeds growing together, like those of common *Melilot*.

This Species differs from the rest by a very remarkable Mark, viz. by the conjunct placing of the Leaves upon the Stalks.

It swims in little Brooks or Rivulets, especially where the Water is pure and clear; and flowers in the Months of June and July.

7. *Potamogeton minus, foliis densis mucronatis, non serratis*. Bot. Monsp. The smaller Pondweed, with thick-set, pointed Leaves, but not dented. *Fontalis media, lucens*. J. B. 3. 777.

8. *Potamogeton ramosum, angustifolium*. Branched narrow-leaved Pondweed. C. B. Pin. 193. Prodr. 101. J. B. 3. 978: This is the *Potamogeton gramineum ramosum* of Parkinson.

The Stalk of this Plant is above a Foot high, very slender, round and whitish, parted into sundry Branches, with many small, round, dark green Leaves, not set together, but by Spaces a good Way distant, which end in other Leaves almost as small as Hairs; yet notwithstanding, from the Wing

of the first Leaf comes forth a Stalk with like Leaves at the End, and thereat a small Foot-stalk three Inches long, sustaining certain small Flowers, set scattering in a Spike, and not in a Cluster, having small rough Grains or Seeds succeeding them.

9. *Potamogeton caule compresso, folio graminis canini*. Raii Hist. 189. Pondweed with a flat Stalk, and a Dogs Grass Leaf.

The Stalks, which are branched and very flat, are above a Cubit or a Cubit and a half long. The Leaves are long and narrow, resembling the Leaves of Dogs Grass, unless that they are shorter, and every where almost of the same Breadth, and end in a sharp Point, being placed alternately, unless where the Spikes rise, where two are opposite; in each of which run three remarkable Nerves lengthwise. Under each Leaf a thin and pellucid Membrane encompasses the Stalk. The short Spike sustains faint green Flowers, which are composed of four Leaves that are red at the Pointal. The Pointal is generally tipp'd with two Chives. The Seeds are enclosed in a straight Line on one Side, and in a circular one on the other.

It grows very plentifully in a great many Rivers.

10. *Potamogeton pusillum, gramineo folio, caule rotundo*. Raii Hist. 190. Small Grass-leaved Pondweed, with a round Stalk.

It swims in the Water with small branched Stalks a Foot long, with longer Spaces betwixt the Knots than in the *Potamogeton ramosum millefolium*. The Leaves are grassy and narrow, two Inches long, and thin, by which it differs from the *Potamogeton millefolium* & *maritimum*, whose Leaves are thicker and narrower, with a Nerve running along the Middle, in the same Order as in the other Species. Out of the Bottoms of the Leaves come forth both little Branches and little Membranes, infolding them as in the first Species. Where the Spike of Flowers comes forth, there are placed two Leaves opposite to one another, as in the other, and two little Branches, in the Angle of whose Separation stands the Spike: There a double Membrane comes forth, one infolding the Spike, and the other the opposite

site Branch. The Spike is short, composed of three or four Flowers, each of which consists of four hollow Leaves instead of a Flower-cup, containing eight Chives and as many Seeds in the Middle.

11. *Potamogeton flosculus ad foliorum nodos.* Pondweed with little Flowers at the Knots of the Leaves. *Millefolium aquaticum, flosculus ad foliorum nodos.* C. B. Pin. 141. *Myriophyllum aquaticum, minus.* Clus. Hist. 252. This is the *Millefolium aquaticum minus* of Parkinson.

This Plant is furnished with Shafts that spread far and wide, being round, green, and parted by many Joints; from which it spreads small Fibres like Hairs, by which it is fastned in the Ground. The upper Part of the Shafts appear a Palm above Water, and is encompassed at each Joint with five Wings of thin Leaves that are furnished with other small Leaves, scarce an Inch long, very green, and which gradually diminish towards the Top of the Shafts, insomuch that the Shafts end as it were in a pyramidal Figure, which bears as many Flowers as Wings of Leaves at each Knot on the very Top; whsch Flowers are very small, and furnished with eight white Leaves joined together, and which do not open, and afterwards turning into certain Bunches having four Shittles on their Heads.

Clusus observed this in the shallow Breaches made by the Water in Brooks and Rivers, loaded with Flowers and Seeds in the Month of June; and Mr. Ray found it in great Plenty in the Rivulets about Cambridge.

12. *Potamogeton foliis pennatis.* Pondweed with feathered Leaves. *Millefolium aquaticum, pennatum, spicatum.* C. B. Prodr. 73. *Millefolium pennatum, aquaticum.* J. B. 3. 783.

From small fibrous Roots come forth several hollow, channelled Stalks a Cubit

high, parted by a pretty many Joints, branched out into Arms or Wings, and swimming in the Water; at each of whose Joints come forth three, four, five, or more Leaves, surrounding them like Stars, being finely cut, of a dark brown Colour, and resembling a Feather both in Shape and Smallness. The Tops of the Stalks, which are a Palm long, and better, rise upright out of the Water, and sustain a purplish Spike, which is composed of several Wherles of Flowers surrounding the Shaft at Distances. It has stamineous or thready Flowers, to each of which succeeds a naked Seed.

This Plant is found in the Rivers and larger Pools about Cambridge and elsewhere in England.

Potamogeton comes from two Greek Words *πόταμος fluvius*, & *γείτων vicinus*, as if one should say, a Plant that grows near Rivers, or in watery Places.

Galen tells us, That Pondweed is cooling and drying, much of the Nature of *Knergrass*, but of a thicker Substance: The Decoction of the Leaves in Wine stops a Looseness, and eases the griping Pains of the Belly; and is proper by bathing to cure Itches, old Ulcers, corroding Cankers and Sores: The Leaves assuage Inflammations, and St. Anthony's Fire, Freckles and Heat in the Face. If the Leaves be boiled with Oil and Vinegar, and applied to the Part affected with the hot Gout, they give present Ease. This is also a good Remedy for foul Sores in the Legs; and the Root is good to dissolve Knots and Kernels.

This Plant, says Mr. Lemery, contains a great deal of Phlegm, a moderate Quantity of Oil, and little Salt. It is cooling, condensing and astringent. It is proper for the Dysentery, being taken in Decoctions. It is likewise applied outwardly to Tetters, and other Deformities of the Skin.

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Fig. 1.

Alyffoides.

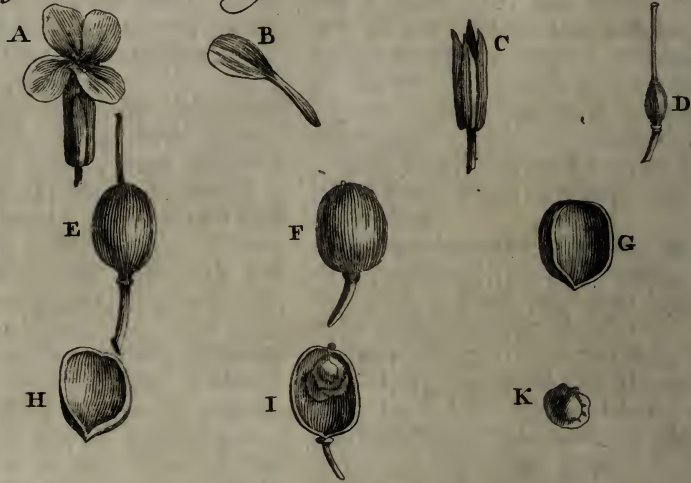
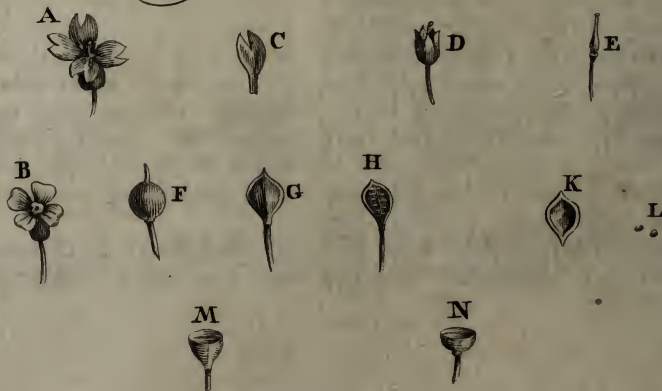


Fig. 2.

Alysson. Madwort.



S E C T. V.

Of Herbs with a Flower in Form of a Cross, whose Pointal turns to a Fruit, divided into two Parts, by an intermediate Partition parallel to the Valves.

TABLE CV. Fig. 1.

GENUS I.

Alyssoides.

Alyssoides is a Plant with a Flower in Form of a Cross A, consisting of four Leaves B: Out of whose Flower-cup C, rises the Pointal D, which afterwards turns to an elliptick, and pretty thick Fruit EF, divided into two Cells by an intermediate Partition I, that is parallel to the demi-elliptical and turgid Valves GH, and full of orbicular, smooth and broad-brimm'd Seeds K.

The Species of this Plant are,

1. *Alyssoides fruticosum*, *Leucoii folio viridi*. Shrub *Alyssoides*, with a green *Stock-gilly-flower* Leaf. An *Leucoium luteum*, *uriculato semine*. P. Alpin. Exor. 117?

Prosper Alpinus's Description of this Plant is as follows: This is a Shrub a Foot high, with many little, round, whitish, rough Branches coming from a small, ligneous Root, that is divided into other smaller Roots. These Branches are crowded with many thick-set white Leaves, smaller than those of the common *Stock-gilly-flower*, broader at the Points, covered over with rough Hair, hard, and are collected as it were in a Ball on the Tops of the Shoots. The Branches produce many Flowers on their Tops, as in our *Stock-gilly-flowers*, which Flowers are crowded quite around, hanging at their own long Foot-stalks, small, yellow, and composed of five Leaves: To which succeed round little Bags, of a yel-

lowish Colour, containing Seeds in their Cells, like *Stock-gilly-flower*, but broader, and whitish. This is not an annual Plant.

2. *Alyssoides incanum*, *foliis sinuatis*. Hoary *Alyssoides*, with sinuated Leaves. *Leucoium incanum siliquis rotundis*. C. B. Pin. 201. *Leucoium cum siliquis rotundis, flore luteo*. J. B. 2. 931. *Eruca peregrina*. Clus. Hist. 421. This is the *Thlaspi incanum maritimum Hispanicum*, *Eruca peregrina Cusii* of *Parkinson*; and the *Leucoium marinum luteum majus Clusii* & *Lobelii* of *Gerarde*.

It produces several Stalks a Cubit high, taper, somewhat hairy, and stretched out into many Wings, from a white, fibrous Root, moderately thick. The Leaves are about half an Inch broad, a Palm long, somewhat hairy, and a little hoary. The Flowers, which are small and yellow, are collected in great Numbers on the Tops of the Branches; to which succeed little swelling Bags, with a Membrane parting them in the Middle, to which adhere foliaceous, round, and reddish Seeds, like the Grains of *Stock-gilly-flower*.

It flowers in the Month of April, and grows up every where on the Sea-coasts of *Isria* and *Ilyria*. It grows likewise in uncultivated Places and by the Way-sides in *Castile*, where it flowers in May.

3. *Alyssoides fruticosum*, *Creticum*, *Leucoii folio incano*. Shrub *Alyssoides* of Candy, with the hoary Leaf of *Stock-gilly-flower*. *Leucoium luteum, uriculato semine*. Prosp. Alpin. Exor. 117.

4. *Alyssoides orientalis, annua, Myagrisati folio*. Oriental annual *Alyssoides*, with the Leaf of *Garden Gold* of *Pleasure*.

This Plant is called *Alyssoides*, because of the Resemblance it bears to *Alysson* or *Madwort*.

TABLE CV. Fig. 2.

GENUS II.

Alysson, Madwort.

Madwort is a Plant with a Flower in Form of a Cross A B, consisting of four Leaves C : Out of whose Flower-cup D, rises the Pointal E, which afterwards turns to a Fruit F G, that is pretty small and gibbous, divided into two Cells M N, by an intermediate Partition H, which is parallel to the Valves G K, and furnished with roundish Seeds L.

The Species of Madwort are;

1. Alysson perenne, montanum incanum. Perennial, mountain, hoary Madwort. *Tblaspi montanum, luteum*. J. B. 2. 928. This is the *Tblaspi montanum, luteum, majus* of Parkinson.

This Plant has many Things in common with the *Alysson minus*, but especially its oblong, hoary and rough Leaves, especially on the under Side, sometimes very much resembling the Olive-Leaf. The Root is long, ligneous, divided into many Parts, producing numerous, ligneous, Ash coloured Stalks, lying along upon the Ground, and above nine Inches high. The Flowers are very numerous, and ranged in the same Order as in the Species just mentioned, much larger, and of a deep yellow Colour : Nor are the Husks unlike, bearing a Pointal on their Head, with a Navel sticking out, and enclosing the Seed.

3. *Bubinus* found it near *Basel*, about *Bursercken*, upon the rugged Places on the Hill.

If you except the Size, I find nothing in the Description of this Plant by *J. Baubinus*, but what agrees to the *Alysson minus*. But that which he received of *Tissanus* from *Champagne* in *Burgundy*, had a much larger Leaf, very much akin to an Olive Leaf. The Flowers resembled those of *Wall-flower*, and had the same Smell with them. It flower'd all June and the Beginning of July.

Mr. *Magnol* observed four little green Leaves about the Husk of the former, but none at

all about this ; and that the Pods differed very much. It is found in the same Places with the other, and flowers at the same Time.

Mr. *Ray* tells us he observed such a Plant on *Atna*, a Mountain in *Sicily*, a Palm high, with a great many little Stalks, with white Flowers, which blew successively as in the rest of the Species, but which did not run out into long Spikes, but were conglomerated or as it were wound up into Heads, by Reason of the Coldness of the Place, as he supposes ; for that he had gathered elsewhere very long Spikes of the same Plant. It differs from all the *Tblaspi*, in that the Leaves of the Flower-cup do not fall with the Flowers, but remain under the Seed vessel ; which Mr. *Magnol* makes to be peculiar to that *Aysson*, which is called, *The smaller Field Madwort*.

2. *Alysson incanum Serpilli folio, majus*. The greater Madwort, with a Mother of Thyme Leaf. *Tblaspi minus quibusdam, aliis Alysson minus*. J. B. 2. 928. *Tblaspi Alysson dictum, canestire, majus*. C. B. Pin. 107. *Alysson minimum*. Clus. Hist. cxxxiii. This is the *Tblaspi arvense minus luteum* of Parkinson ; and the *Tblaspi Græcum* of Gerard.

This little Plant renewing it self every Year from the Seed that falls, grows into a Shrub with numerous, hard, taper, rough, and hoary Stalks, divided into Branches, and lying sometimes upon the Ground. The numerous small Flowers, which are upon the Tops of the Stalks and Branches, peeping out of Flower-cups divided into four Parts, and as it were running out into Spikes, as in the lesser *Tblaspi* and others of that Genus, stand upon short Foot-stalks, and are yellow, consist of four Leaves, are so small that they scarce blow, and their Parts cannot be easily discerned ; to which succeed in a long Series Seed-vessels standing out from the Stalk, not unlike a Grain of Lentile in Shape, but much smaller, being hollow on the upper Part, sticking out in the Middle with a Circle that is drawn round them, under which lie four small reddish Seeds, two in each Cell, which are divided by a Membrane. The lowermost Leaves resemble the Leaves of *Thyme* or small *Chickweed*, being half an Inch long, standing upon

upon a narrow Foot-stalk, widening towards the Point, and are hoary, rough to the Touch, but less so than those that stand upon the Stalk, thick-set, oblong, and in Proportion to their Length narrower than those that are placed at the Root. The Root is ligneous, white, single, and sometimes furculous. The Plant has the Taste of *Cress*, but much milder; however the Root is pretty acrid and biting.

It flowers in *April* or *May*, sooner or later according to the Mildness or Severity of the Season.

It grows every where about *Geneva* in gravelly Places, as also about *Mentz* in *Germany*, and *Montpelier* in *France*.

This Plant does not always appear with the same Face; for sometimes it is very small, and at other Times about nine Inches high. It often varies likewise in the white Colour of its Flower, according to the Testimony of *J. Baubinus*, who says it grew in great Plenty in his Garden with a white Flower. *Clusius* is certainly mistaken, when he says, that the Flower is composed of five Leaves.

3. *Alysson incanum*, *Serpilli folio*, minus. The smaller hoary Madwort, with a Mother of Thyme Leaf. *Thlaspi Alysson dictum*, *campestre*, minus. C. B. Pin. 107.

4. *Alysson incanum*, *Serpilli folio*, fructu nudo. Hoary Madwort, with a Mother of Thyme Leaf, and a naked Fruit. *Thlaspi Alysson dictum minus*, *capsulis majoribus*, *rotundis*, *non foliatis*. Bot. Monsp.

5. *Alysson maritimum*. Maritime Madwort. *Thlaspi Alysson dictum*, *maritimum*. C. B. Pin. 107. *Nasturtium vel Thlaspi maritimum*. J. B. 2. 927. *Thlaspi Narbonense*, *Centunculi angusto folio*, *Alysson Italicorum*. Tabern. Icon. 461.

From a white, ligneous, single, perennial Root, capillated with a few Fibres, it sends up several weak feeble Branches, lying upon the Ground, streaked, pretty ligneous, brittle, hairy and reddish; which are clothed with Leaves ranged in an alternate Order, or no Order at all, an Inch long, very narrow, covered with a hoary Down, and tasting like *Cress*. The Flowers, which are gathered in Heaps on the Tops of the Branches, are white, consisting of four

Leaves, with a dark Middle or Navel, exactly like the Flowers of the common *Water-Cress* in all Respects. The Seed vessel is small and flat, with the upper Part sharp-pointed, containing two or three small reddish Seeds.

It is to be seen almost every where upon the *Mediterranean*, and bears some Resemblance to *Stock-gilly-flwer*, unless that its Branches are weaker, and lie upon the Ground, and that both the Branches and the Leaves are much smaller. The Seed in this Species is flat and smooth, in each Seed-vessel a Couple; for the Husks are parted by a middle Membrane into two Cells, each of which contains a Seed.

6. *Alysson Halimi folio*, *sempervirens*. Evergreen Madwort, with a Sea-Purslane Leaf. *Thlaspi Halimi folio*, *sempervirens*. H. L. Bat.

7. *Alysson minus*, *Halimi argenteo angusto folio*. Lesser Madwort, with a Sea-Purslane silver narrow-Leaf. *Thlaspi parvum*, *Halimi angusto*, *incano folio*. Bocc. Mus. Part 2. 45. *Thlaspi parvum*, *Halimi angusto*, *argenteo folio*. Ejusd. Tab. 39.

8. *Alysson minimum*. The smallest Madwort. *Thlaspi Alysson minimum*. Mor. H. R. Bief.

9. *Alysson fruticosum*, *aculeatum*. Shrub prickly Madwort. *Thlaspi fruticosum*, *incanum*. C. B. Pin. 108. *Leucoium spinosum*, five *Thlaspi spinosum*, *aliis*. J. B. 2. 931. *Thlaspi fruticosum*, *spinosum*, *Narbonense*. Lob. Icon. 217.

This Plant has a pretty thick, warped, ligneous Root, nine Inches long, of a dark brown Colour without, and of a Box Colour within, and ending in several Heads. The Stalks which are ligneous, growing close together, two or three Inches long, or somewhat longer, clothed with a dark brown whitish, or greenish Bark, are divided into a good many Branches, some of which end in long, stiff, straight and sharp Prickles, in Order and Form like the prickly *Burnet*. The Leaves on the lower Branches are but few, but on the upper Ones many, without Form, resembling those of the yellow *Mountain Thlaspi*, half an Inch, and an Inch long, scarce so broad as a Blade of Corn, with a blunt Point, thick, hoary, and of a somewhat

somewhat biting Taste. On the Tops of the Branches hang greenish Husks at moderate Foot stalks, resembling the Heads of *Gold of Pleasure*, open on both Sides, parted into two Cells, by a lucid Membrane, containing a round, reddish, flat Seed with a biting Taste.

10. Alysson fruticosum, incanum. Hoary shrub Madwort. *Thlaspi fruticosum, incanum*. C. B. Pin. 108. *Thlaspi capsulis sublongis, incanum*. J. B. 2. 929. *Thlaspi incanum, Mechliniense*. Lob. Icon. 216.

11. Alysson Alpinum, hirsutum, luteum, Yellow, hairy Madwort of the Alps. *Sedum Alpinum, hirsutum, luteum*. C. B. Pin. 284. *Sedum petraum, montanum*. Lob. Icon. 381.

12. Alysson Alpinum, Polygoni folio incano. Madwort of the Alps, with a hairy knot-grass Leaf. *Bursa pastoris Alpina, hirsuta*. C. B. Pin. 108. Prodr. 51.

13. Alysson vulgare, Polygoni folio, caule nudo. Common Madwort, with a knot-grass Leaf, and a naked Stalk. *Bursa pastoris minor, loculo oblongo*. C. B. Pin. 108. *Bursa pastoris minima, oblongis siliquis, verna, loculo oblongo*. J. B. 2. 937. *Paronychia vulgaris*. Dod. Pempt. 112. Common Whitlow-grass.

This Plant has a small and fibrous Root; from which rise many Leaves spreading upon the Ground, scarce an Inch long, sharp-pointed, hairy, sometimes greenish and sometimes reddish, the Edges at the End being cut in with some Notches, of a Taste a little astringent at first, then acrid, nitrous and biting; among which sometimes one Stalk, at other Times two, three or more (which are taper, a Palm high, and sometimes not above three Inches high, without Leaves) sustain many white Flowers together consisting of four Leaves each, that are split in two, and standing upon long Foot-stalks; with a longish flat Seed-bag, not parted by any Partition as in *Shepherds-purse*, but ending in a Point, and separated by a thin Membrane going between the Valves, and containing a small round Seed.

It flowers in the Month of March, sooner or later according as the Winter has been, mild or severe. It grows in the Fields or in Gardens, especially in sandy and barren

Ground, and sometimes on the Walls and Tops of Houses. It is an annual Plant, and renews it self every Year by the Seed.

14. Alysson veronicae folio. Madwort with a Speedwell Leaf. *Bursa pastoris major, loculo oblongo*. C. B. Pin. 108. *Bursa pastoris sublongo loculo affinis, pulchra Planta*. J. B. 2. 938. *Draba minima, muralis, discoides*. Col. Part. 1. 274. This is the *Thlaspi Veronicae folio* of Parkinson.

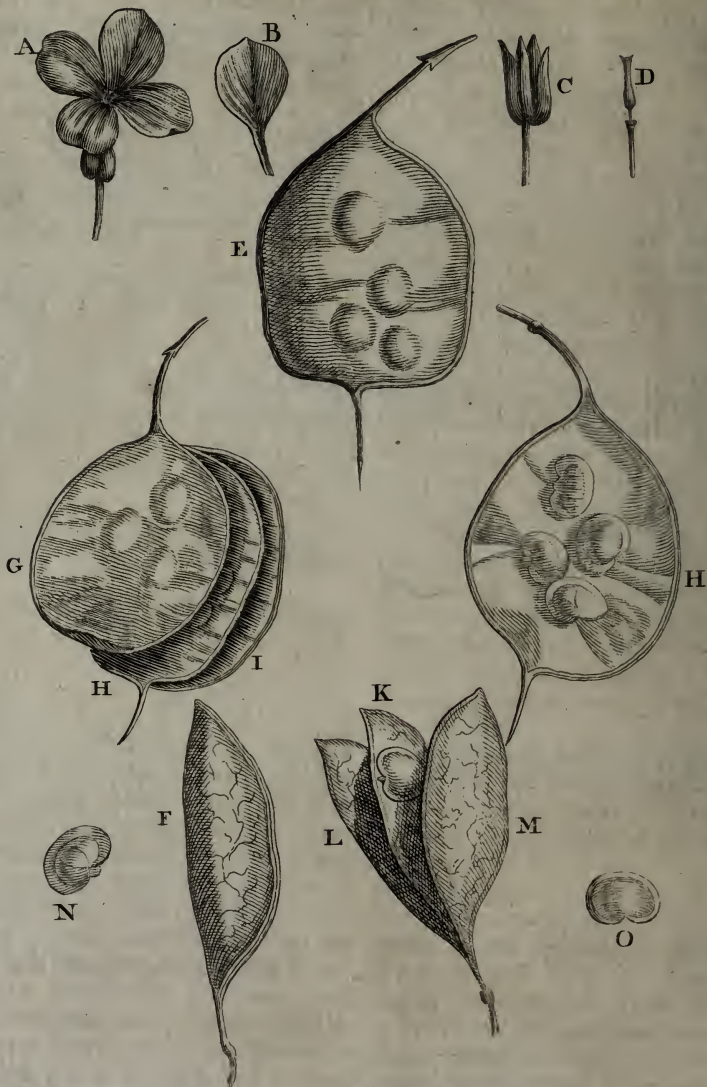
It spreads its Leaves on the Ground, which do somewhat resemble the Leaves of *Winter Cress*, but shorter, broader, and rounder, an Inch, or two Inches broad, dented round the Edges, hairy and somewhat rugged, such as are also those that are set on the Stalks and Branches, but a little smaller, and without Foot-stalks. But immediately from the Root it sends up several Stalks, some of them coming to greater Perfection than others, above a Cubit high, sometimes divided into many Branches, which do not grow close to the Stalk, but stand out from it. To every Wing adhere many small white Flowers, which are succeeded by Bags in a long Series, like those of the common *Whitlow-grass*, opening two Ways, and having a Stripe in the Middle, the Valves of which giving way on both Sides, there appears small Seed, leaving the separating Membrane behind them. In each Pod are contained several Seeds, six or eight in each Cell.

This Plant is common on the Sides of Hills in the Western Part of *Yorkshire*, called *Craven*. Mr. Ray likewise found it in *Italy*, growing at the Sides of Hedges, about half way betwixt *Lucca* and *Pisa*; and in *France* near *Montepelier*.

15. Alysson segetum, foliis auriculatis, acutis. Corn Madwort, with auriculated sharp-pointed Leaves. *Myagrum sativum*. C. B. Pin. 109. *Myagrum dictum Camelina*. J. B. 2. 892. & *Myagrum Turcicum*. Ejusd. 2. 893. *Camelina sive Myagrion*. Dod. Pempt. 532. This is the *Myagrum sylvestre, sive Pseudo-Myagrum* of Parkinson. Item. *Myagrum sativum*. Ejusd.

From one Stalk above a Cubit high shoot forth small, taper, upright, hairy, branched Branches, which are full of a fungous Pith; on

Lunaria. Moonwort.



on which are set Leaves like those of the *Draba*, with a broad Bottom, oblong, soft, not rugged but resembling the Leaves of *Rubia* or *Madder*, to which *Dioscorides* compares this Plant, of a pale Colour, embracing the Stalk with their Wings, gently dented round the Edges, and of an oleraceous Taste. The Flowers, which are small, yellowish, and consist of four Leaves stand upon pretty long Foot-stalks; to each of which succeeds a Seed-vessel, somewhat resembling the Stone of a Grape, a little plump, and oblong, with four Angles or Ribs, containing many oblong, triangular Seeds, smaller than those of *Cress*, almost of the Colour of *Fenugreek*, of the Taste of *Cress*, which contract a certain Mucilage after they have been kept in the Mouth for some Time. The Root when come to its full Growth is somewhat ligneous and fibrous.

16. *Alysson segetum*, foliis auriculatis, acutis, fructu majori. *Corn Madwort*, with auriculated sharp-pointed Leaves, and a larger Fruit.

17. *Alysson Pyrenaicum*, perenne, minimum, foliis trifidis. The smallest *Pyrenean Madwort*, with its Leaves divided in three.

18. *Alysson Creticum*, saxatile, foliis undulatis, incanis. *Candy rock Madwort*, with waved hoary Leaves.

19. *Alysson Creticum*, foliis angulatis, flore violaceo. *Candy Madwort*, with angular Leaves, and a Violet-colour'd Flower.

20. *Alysson Creticum*, saxatile, *Serpilli folio candidissimo*, capsulis orbiculatis. *Candy rock Madwort*, with a very white Mother of Thyme Leaf, and roundish Husks.

21. *Alysson Græcum*, frutescens, *Serpilli folio amplissimo*. *Greek shrub Madwort* with a very large Mother of Thyme Leaf.

22. *Alysson orientale*, *Serpilli folio, capitulis in spicam longissimam dense digestis*. *Oriental Madwort*, with a Mother of Thyme Leaf, and Heads ranged close into a very long Spike.

23. *Alysson orientale*, *Serpilli folio, Elichrysi capitulo*. *Oriental Madwort*, with a Mother of Thyme Leaf, and a Goldlocks Head.

24. *Alysson orientale*, *Serpilli folio, capsulis minimis*. *Oriental Madwort*, with a Mother of Thyme Leaf, and very small Husks.

25. *Alysson orientale*, *incanum, Serpilli folio, fructu majori, tumido*. *Oriental hoary Madwort*, with a Mother of Thyme Leaf, and a large swelling Fruit.

26. *Alysson orientale*, *annuum, Serpilli folio rotundiore, flore magno, cordiformi*. *Oriental annual Madwort*, with a round Mother of Thyme Leaf, and a large Flower in the Shape of a Heart.

27. *Alysson orientale*, *Leucoii folio candidissimo, caule sesquipedali*. *Oriental Madwort*, with a very white Stock-gilly-flower Leaf, and a Stalk a Foot and a half long.

28. *Alysson orientale*, *fruticosum, latissimo Leucoii folio*. *Oriental shrub Madwort*, with a very broad Stock-gilly-flower Leaf.

29. *Alysson orientale*, *Turritidis folio, flore luteo*. *Oriental Madwort* with a Tower-mustard Leaf, and a yellow Flower.

30. *Alysson orientale*, *Polygoni folio, flore luteo*. *Oriental Madwort*, with a Knot-grass Leaf, and a yellow Flower.

31. *Alysson orientale*, *angustissimo folio, fructu ovato*. *Oriental Madwort*, with a narrow Leaf, and an oval Fruit.

32. *Alysson orientale*, *minimum, foliis rigidis & lucidis*. The smallest *oriental Madwort*, with stiff and shining Leaves.

You must look for the Virtues of this Genus under *Thlaspi*, &c.

TABLE CVI.

GENUS III.

Lunaria, Moonwort.

Moonwort is a Plant with a Flower in Form of a Cross A, consisting of four Leaves B: Out of whose Flower-cup C, rises the Pointal D, which afterwards turns to a perfectly smooth Fruit E F, divided as it were into two Cells by an intermediate Partition H K, to which adhere the Parallel and membranous Valves G I, L M, and fall

of Seeds N O, which are commonly broad-brimm'd, and in the Shape of a Kidney.

The Species of Moonwort are,

1. *Lunaria major*, siliqua rotundiore. The greater Moonwort, with a roundish Pod. *Viola lunaria major*, siliqua rotunda. C. B. Pin. 203. *Viola latifolia*. Dod. Pempt. 161. *Viola lunaris ima*. Tabern. Icon. 313. This the *Viola lunaria*, sive *Bulbonach* of Gerarde and Parkinson.

It rises up with a Stalk about a Cubit and a half high, and sometimes as thick as one's little Finger, of a grey reddish Colour, and hairy. The Leaves are like those of Nettles, but twice or thrice as big, and are hairy, jagged, sometimes opposite to one another, and sometimes single at the Rise of the Branches, and of an oleraceous Taste. The Flowers in great Numbers stand upon the Tops of the Stalks and Branches, ranged almost in the same Order as in *Colewort*, being of a purplish or incarnate Colour, striped, of the same Size with the Flowers of common *Colewort*, smaller than those of *Stock-gilly-flower*, but otherwise like them, of a faint Smell, with the Nail within conspicuous and whitish. The four greenish *Stamina* with their yellow or green Chives, scarce peep out of the Cup, which is oblong and purple, composed of four Leaves, two larger and as many smaller, resembling the Flower-cup of *Stock-gilly-flower*. The Pods are broad and roundish, flat, having two Valves, with a little silver Spangle or Foil going between the two Plates without on both Sides, sending out a Thread below, and containing a double Row of orbicular and flat Seeds. The Root is stumous or glandulous, from whence it got the Name of *Bulbonach*. The Seed is the largest of any of this Genus, of a blackish red Colour, and very biting with a Mixture of Bitterness. It retains the Leaves all the Winter. It produces a Stalk the second Year after it has been sown, and perishes as soon as the Seed is ripe.

It grows in great Abundance in the Forests of *Thuringia*; on the woody Hills of *Austria*, *Sirria*, and in the neighbouring woody Places, as also in some Parts of *Hungary*.

2. *Lunaria major perennis*, siliqua rotundiore, flore albo. The great perennial Moonwort, with a rounder Pod, and a

white Flower. *Leucoium lunatum seu lunarium*, latifolium, majus, alterum, siliqua rotunda, flore albo. Mor. Hist. Oxon. Part. 2. 246.

This Species has broad Leaves and smooth round Husks. It stands upon a perennial Root, which is not damaged by the Winter: The Stalks are a Cubit high, and ligneous. The Leaves are many and broad. The Pods are broad, flat, and round; but the Flowers are white like those of the *Viola Matronalis*.

It grows in some Woods in Germany.

3. *Lunaria major*, siliqua longiore. 7. B. 2. 882. The great Moonwort, with a longer Pod. *Viola lunaria major*, siliqua oblonga. C. B. Pin. 203. *Viola lunaris 2da*. Tabern. Icon. 314.

This has the broad Leaves of the former Moonwort, which are likewise dented and pointed; with a like purple Flower; but the Pod that succeeds it is oblong, and is much narrower than the Pods of the former Moonwort, with two Membranes on both Sides leaving the middle silver coloured Partition when the Seed is ripe. The Root is perennial.

Mr. Ray saw this Plant growing upon *Jura* and *Saleva*, two Hills near *Geneva*, but not in great Plenty, so far as he could observe. When it is transplanted to Gardens, it flowers in May.

4. *Lunaria major*, siliqua longiore, flore purpureo. The greater Moonwort, with a long Pod, and a purple Flower. *Leucoium majus*, perenne, siliqua, lunata, longa, coronata, flore purpureo. H. L. Bat.

5. *Lunaria Leucoii folio*, siliqua oblonga, majore. Moonwort with a *Stock-gilly-flower* Leaf, and a large oblong Pod. *Leucoium Alyssoides*, clypeatum, majus. C. B. Pin. 201. *Alysson siliqua lata, aspera*, quibusdam *Lunaria*, flore luteo. J. B. 2. 934. *Alysson Dioscoridis*. Dod. Pempt. 89. *Dioscorides* his *Madwort*.

It stands upon a single, ligneous, and white Root, which has a burning Taste: From which rise up several upright, stiff Stalks, with a hairy Down upon them, which are divided into several Branches at a little Distance from the Top; on which stand a great many small Flowers, like those of *Jupiter's Distaff*, and like the Flowers of *Hedge-mustard* both

both in Form and Size : When these are fallen, the Pods appear, of an oblong round Figure, covered with a hairy Down, flat, and likewise containing a flat Seed. The Leaves at their first breaking forth are of a round oblong Figure, afterwards running more into Length, and end in a blunt Point, being somewhat sinuated, resembling the Leaves of *Stock-gilly-flower*, whitish, hairy, and rough to the Touch, and have an oleraceous Taste.

6. *Lunaria Leucoii folio, siliqua oblonga, minori.* Moonwort with a *Stock-gilly-flower* Leaf, and a smaller oblong Pod. *Leucoium Alyssoides, clypeatum, minus.* C. B. Pin. 201. *Leucoium minus, peltatum, Romanum.* Col. Part. 2. 60. This is the *Alyssum alterum Dioscoridis, minus* of Parkinson.

This differs from the former in its native Soil being more warm ; in its perennial Root ; in its smaller and softer Leaves ; in its larger white Flowers (whereas those of the other are yellow) with their Leaves being cut into the Shape of a Heart ; and in its Buckler's being one half lesser. It begins to bear Flowers and Fruit near the Bottom, in the Spring.

It grows plentifully every where in the unlaboured Ground about Rome. If you want to have an ample Description of all its Parts, you may consult *Columna*.

The Seeds, according to *Columna's* Description, are reddish, round, flat, and thin.

7. *Lunaria siliqua oblonga, inorta.* Moonwort with an oblong warped Pod. *Leucoium sive Lunaria vasculo sublongo, intorto.* Raii Synops. 164.

8. *Lunaria fruticosa, perennis, incana, Leucoii folio.* Shrub, perennial, hoary Moonwort, with a *Stock-gilly-flower* Leaf.

This Genus is called *Lunaria* from the Shape of the Pods, that resemble the Moon.

The first Species here described is sometimes used in Physick, and chiefly the Seed and Leaves.

This Plant has an acrid and bitter Taste, the Seeds especially ; however the Roots are used in Sallads like *Rampions*. It cleanses, warms moderately, and provokes Urine, as the *Rampions* does. The Powder of the Seed,

which is very bitter, is given with a proper Water in the Epilepsy.

A certain Surgeon in *Switzerland* made a very good vulnerary Ointment of the bruised Leaves of *Sattin* or *Honesty* (which is this great perennial *Moonwort*) and *Sanicle*. *Cam. Schwenckf.*

The fifth Species, which is reckoned the true and genuine *Madwort* of *Dioscorides*, has much the same Vertues with the *Alysson* or *Madwort* of *Galen*, and, as they say, they do agree in this, That taken in Wine, in Broth, or in Meat, or in any other Manner, they cure the Venom and Poison of the Biting of a mad Dog ; which *Galen* says, they work from the Likeness of the whole Substance ; and were found to do so by plain Experience, without any other Method ; and that his Plant would perform many other Cures, if any one should try it, particularly in those Diseases where the Faculties of drying, digesting, and moderately cleansing, which are in this Herb, were required : And therefore both *Dioscorides* and *Galen* do say of each of their Plants, That they cleanse the Skin from Wheals and Pimples, from Spots and other Discolourings, as the *Morphew* and *Sun-burning*, &c. *Dioscorides* says, that his *Alysson* taken in Drink stays the Hiccup, if there be no Ague ; and that it will even do so if any one do but hold it in his Hand and smell to it. Both the mentioned Plants of these two Ancients are also effectual for Wounds both outward and inward, for digesting the clotted Blood that is gathered by any Fall, Blow, or Bruise, and to cleanse and heal old rotten and filthy Ulcers, and creeping Cancers. *Dioscorides* says, that it is likewise an Amulet to prevent or drive away Charms, used either upon Man or Beast, and that if it be tied with a scarlet Cloth to Cattle that are diseased, it certainly cures them : And therefore many in After-ages have enlarged very much upon this Fancy, and carried it to much higher Purposes ; but since all those monkish Cheats are now pretty well discarded amongst all reasonable Men, the Reader shall not be troubled with the Relation of such superstitious Stuff, and prophane Juggle.

S E C T. VI.

Of Plants with a Flower in Form of a Cross, whose Pointal turns to a siliquous Fruit consisting of two Cells.

TABLE CVII.

GENUS I.

Brassica, Cole or Colewort.

Colewort is a Plant with a Flower in Form of a Cross A, consisting of four Leaves B: Out of whose Flower-cup C, rises the Pointal D, which afterwards turns to a Fruit or Pod E, which is taper, long, and cylindrical, and divided into two Cells by an intermediate Partition F, to which the imbricated Valves GH, on both Sides adhere, and furnished with roundish Seeds I. To these Marks must be added the Appearance and Make of the whole Plant, which consists commonly in its wrinkled, sinuated and grey Leaves.

The Species of Colewort are,

1. *Brassica capitata, alba.* C. B. Pin. 111. J. B. 2. 826. *White Cabbage.* *Brassica capitata, albida.* Dod. Pempr. 623.

It produces a thick whitish Stalk, covered with a thick Bark, with a little acrid and sweetish Pith. The Leaves which break out first are broad and large, somewhat round, not sinuated with any considerable Jaggs, standing upon long thick Foot-stalks, interwoven with thick whitish Ribs and Nerves, of a grey or blueish Ash-colour, whose under Leaves being pluck'd off or fallen, leave the Stalk rugged and uneven, with a close Series of remaining Marks: But the upper Leaves that remain are likewise broad and roundish, and are of a grey or whitish green Colour, and are gathered into a very large and hard Head by lying close upon one another; and embrace one another so closely that it is hard to separate them. The innermost Leaves are plainly white. Then the Ball or Head be-

ginning to gape a little in the Spring, (which is the usual Time of transplanting it for Seed) sends up a straight Stalk out of the Middle, with yellow, or pale yellow Flowers, to which succeed long, taper, sharp-pointed Cods or Husks, enclosing round Seeds, within Walls or Partitions of a pithy Substance.

Nature sometimes shows a most beautiful Variety in this Plant, by producing fifty smaller Heads instead of that great round Ball.

The Root is white, furnished with a great many Fibres; nor does it shoot down deep into the Earth, or spread wide; which is the Reason that it is easily killed by a very sharp Frost.

2. *Brassica alba, capite longo, non penitus clauso.* C. B. Pin. 111. *Brassica Italica, tennerrima, glomerosa, flore albo.* J. B. 2. 827. *Brassica Sabauda, hyberna.* Lcb. Icon. 244. *The Savoy Cabbage.*

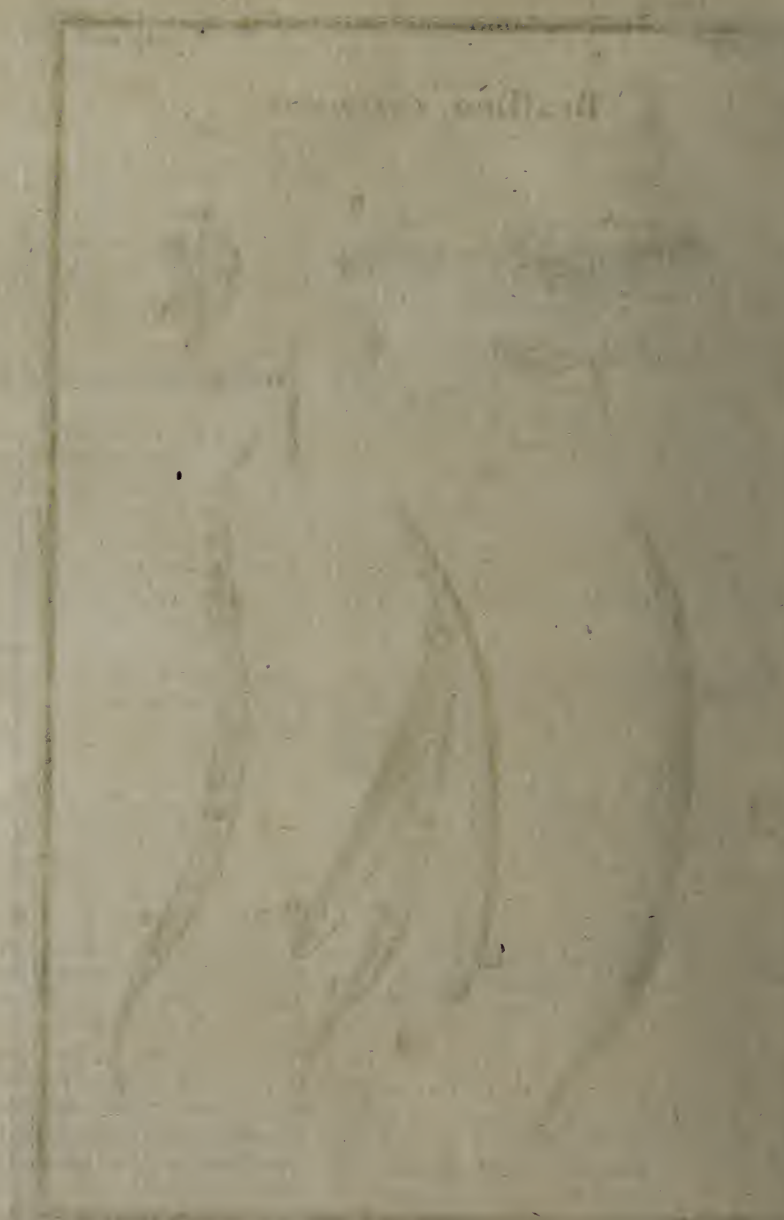
This is the whitest and tenderest of all the white Coleworts, both in its Stalk and Leaves, and consequently in the whole Plant. And the Leaves, which are large and round, are of a deeper green Colour, and interwoven with whitish Veins; some of them also are gently curled, and somewhat wrinkled by their various bending backwards and forwards: And certain foliaceous Auricles adhere to the short Foot-stalks. The Flowers are white and four-leav'd, as in the other Species, which do not blow fully but in a warm Sun, because they cannot bear a chilling Cold. The Head is smaller and more lax than the former, because the Leaves do not cling so close to one another.

This Species is more delicious because it is more tender, and is therefore brought to the Tables of the more delicate and nice Palates, who know the agreeable and pleasant Taste of this Colewort.

3. *Brassica alba vel viridis.* C. B. Pin. 111. *White or green Colewort.* *Brassica alba, vulgaris.*

Brassica. *Colenwort.*





vulgaris. J. B. 2. 829. *Brassica vulgaris, sativa*. Dod. Pempt. 621.

This *Colewort* has a gritty and crumbling Root, from which rises a Stalk, which in some Sort resembles the red *Colewort* in its Leaves, and in the Division and interweaving of their Nerves. But the Leaves seem to be roundish, and more tender, standing upon long thick Foot stalks, and are a little dented or jagged round the Edges. The whole Plant has a whitish Cast, with a certain Tincture of grey all over it. It has Auricles as the former. The Flower is white, or rather pale.

4. *Brassica alba, expansa*. J. B. 2. 829. *White, spreading Colewort*.

5. *Brassica alba, crispa*. C. B. Pin. III. *White, curled Colewort*. *Brassica Sabauda, rugosa*. J. B. 2. 828. *Brassica Sabauda*. Dod. Pempt. 624.

This is the most beautiful of all *Coleworts*, and bears fine Leaves upon long-eared Foot-stalks, which are oblong, above a Cubit high, beautifully marked with white Stripes, and interwoven with their various Windings, having their Edges also sinuated with manifold and various Twistings and Twinings, and are so curled that they resemble in some sort Ostrich Feathers, which add so much Beauty and Ornament to the Heads of our gallant Soldiers, and our young Masters.

The Ribs are also of a faint purple Colour, as are the Stalks. The Flower is yellow. They are not inferior to the red *Colewort* for the Kitchen.

6. *Brassica ex capitis pluribus conglobata*. C. B. Pin. III. *Colewort with several Heads gathered into one*. *Brassica capitata, polycephalos*. Lugd. 521. This seems to be only a Variety of the first Species, which we have told you already, loves to grow up sometimes with many Heads instead of one great One.

7. *Brassica capitata, rubra*. C. B. Pin. III. J. B. 2. 831. *Red Cabbage*. *Brassica rubra, capitata*. Dod. Pempt. 621.

As to the Leaves, they are somewhat like the White; but they play with a vast Variety in the Colour: For some of them are of a dark purple, some of a dark green, and others of a faint green Colour; and some of them have even a grey Shade cast over them; but all of them are interwoven with red

Ribs and Nerves. In the rest it agrees with the white *Cabbage*.

J. Baubinus says, it bears the Winter very well.

8. *Brassica gongylodes*. C. B. Pin. III. *Colewort with a Stalk like a Turnep*. *Brassica caulorapa*. J. B. 2. 829. *Brassica caule Rapum gerens*. Dod. Pempt. 625.

This *Colewort* bears no Head, but the Leaves are all open; but the Mark by which it is distinguished from all the rest is this; That the Stalk under the Leaves is short, and swells to a Bunch like a Turnep. The Flowers on slender Stalks are small and yellow, and are succeeded by narrow oblong Cods, full of Seeds about the Bigness of *Mustard* Seed.

9. *Brassica cauliflora*. C. B. Pin. III. *Colt flower*. *Brassica multiflora*. J. B. 2. 828. *Brassica florida botrytis*. Lob. Icon. 245.

This also bears very large, expanded Leaves, a Cubit high, longer than the Leaves of white *Cabbage*, sharper-pointed, and not so broad, having no considerable Jaggs, of a light green Colour, and some of them of a more greyish Colour, especially the outmost ones; remarkable for their white Ribs and Nerves, dented or as it were notched round the Edges with Notches at a pretty good Distance from one another. It is gathered into a soft Head, formed by the Leaves lying upon one another, but not very close; in the Bosom of which, little pale or whitish Flowers in a very close Order come forth, ranged as it were in an Umbell, which with their little Stalks seem to strive with the tender Buds of *Asparagus* for Tenderness and Delicacy; and are therefore accounted a very delicious Dish.

If the Seed of this Plant which grows in our Gardens be gathered and sown, it produces, by a wonderful *Metamorphosis*, either white *Cabbage*, or common white *Colewort*; so that we are obliged every Year to send for the Seed from warmer Countries beyond Sea.

10. *Brassica rubra*. C. B. Pin. III. *Red Colewort*. *Brassica rubra, vulgaris*. J. B. 2. 831.

This seems to be taller than the other Species; for it grows up with a high Stock, two, three, or four Foot, or even Cubits high, which is thick, and of a dark purple Colour, rugged

rugged on the lower Part, sometimes single, and at other Times branched out into Arms. The Stalk is crouded with Leaves placed in no Manner of Order, of a reddish green Colour, otherwise wholly dyed with a bloody or more dark red Colour, not without a certain grey Shade; rugged with the running of many thick Veins along them, expanded and sinuated. The Flowers, which are yellow, adhere to the upright Stalk; and are succeeded by Cods or Seed-vessels a Palm long, in which is contained reddish round Seed. The Leaves remain open and expanded. It bears the Winter; and after, especially when taken Care of and well looked after, arrives to the Height and Firmness of a Tree, and thus endures several Years. It likewise often produces lateral Branches or Shoots.

11. *Brassica radice Napiformi. Colewort with a Root like a Turnep. Napobrassica. C. B. Pin. 111. Prod. 54.*

It has a Root very like a Turnep or a Carrot, very fibrous and hairy, so that it may be called bearded or hairy, by reason of its many and small Fibres: And tho' it frequently has a Fibre thicker than one's Thumb, yet still the first and original Root is more tuberous and longer, and thus resembles a *Nawew* or Turnep. From this rises a Stalk, a Cubit and a half high, smooth, round, and branched into several Arms. The Leaves at the Root, together with their oblong Foot-stalks, are a Palm long, after the Manner of Wood Colewort, roundish, and cut into deep Jaggs; but such as stand upon the Stock are oblong, narrow, sinuated, and without Foot-stalks. The Flowers are large and yellow, and of a deeper Dye than those of the common Sort, standing upon long Foot-stalks, upon a Stalk above a Palm high, not ranged in any regular Order; to which succeed narrow Cods, an Inch long.

It grows in the colder Parts of *Bavaria*, but especially on the Mountains, and about *Bohemia*. The Root may be eaten; so that some dress it like *Colliflowers*: The poorer Sort cut it small as they do Turnips.

12. *Brassica Asparagodes, crispa. C. B. Pin. 111. Curled Colewort resembling Asparagus. Brassica crispa, prolifera. Tabern. Icon. 398. Brassica thyrsoides. J. B. 2. 833.*

This is a Sort of red Colewort, with open Leaves of a deep greenish deep red Colour, every now and then jagged, all along which on the upper Side runs a new Offspring of curled Leaves, with beautiful Garlands rising up and down, in great Variety, sometimes hanging by a short and slender Thread, and sometimes sticking to a pretty broad Foot-stalk, and then again wantoning into other Chaplets and Wreaths. The Flowers, Cods, and Seed do much resemble those of the common red Colewort.

The Author of the *Hist. Lugdun.* gave a very just Account of this Plant. The Leaves are sometimes jagged, and cut in with many Teeth, as in curled Colewort; and at other Times they are altogether expanded and open. Sometimes they are altogether green, and at other Times they have the middle Rib, and the Veins, which are red, spreading all over them. Mr. Ray says, that he saw all these Varieties and several more in a Plant that grew in his Garden at Cambridge from a fall'n Seed.

13. *Brassica rugosa, longioribus foliis. F. B. 2. 828. Shrivelled Colewort, with longer Leaves.*

14. *Brassica fimbriata. C. B. Pin. 112. Fringed Colewort. Brassica crispa, laciniata. J. B. 2. 832. Brassica tophosa. Tabern. Icon. 401.*

The Leaves of this are narrower and longer than those of the *Brassica laciniata*, and more deeply jagged, even to the very middle Rib, very much curled about the Edges, and are uneven with Bosses, or as it were little Flaggons, sticking out in great Numbers on the under Side, which are hollow on the upper Side. They are wholly blackish, or of a dark green Colour.

15. *Brassica fimbriata, maxima. The greatest fringed Colewort.*

16. *Brassica fimbriata, pumila. C. B. Pin. 112. Dwarf fringed Colewort. Brassica Anglicana, nivea, minima. J. B. 2. 830. Anglica minima Brassica. Adv. 92.*

Lobel says, he remembers to have seen this small Colewort in Gardens in England, and that it was all over as white as Snow, except the uttermost jagged Borders, fringed with curled Plaits and shrivelled Waves, bestrewed with purple Spots, which the People cultivated in their Gardens for making of Garlands

lands and Nofegays, while it was yet young and tender.

17. *Brassica laciniata alba*. *J. B. 2. 832.*
White jagged Colewort.

It very much resembles the red jagged Colewort in its Size and Shape, is not altogether white, but has sometimes a purplish Stock, on which are set Leaves of a pale green Colour, which are covered over with a certain grey Shade. The Jaggs of the Leaves are likewise very deep, but not so much curled.

18. *Brassica laciniata, rubra*. **Red jagged Colewort.** *J. B. 2. 832.*

It differs but very little in Size from the common red Colewort. They are the Leaves that make the chief Difference, which do somewhat vary in their deep sinuated Jaggs, these being again cut sometimes into broader, sometimes into narrower Jaggs, that the whole almost seems curled, and that by Reason of the bending and turning of the smaller Jaggs. It bears the Winter.

19. *Brassica angusto Apii folio*. *C. B. Pin. 112.* **Colewort with a narrow Parsley Leaf.** *Brassica tenuissime laciniata*. *J. B. 2. 832.* *Brassica Selinisia angustifolia*. *Tabern. Icon. 401.*

This Colewort has curled Leaves, that are deeply jagged round the Edges, even to the very middle Rib. In this Species some of the Leaves appear to be cut with thicker-set and deeper Jaggs, and others with thinner-set and less deep Jaggs. And this was the Reason for which *C. Bauhinus* made two Species out of one; one, *lato Apii folio*; and another, *angusto Apii folio*.

20. *Brassica lato, Apii folio*. **Colewort with a broad Parsley Leaf.** *Brassica selinisia, latifolia*. *Tabern. Icon. 402.*

21. *Brassica arvensis*. *C. B. Pin. 112.* **Field Colewort.** *Brassica rubra, minor*. *J. B. 2. 833.* *Brassica sylvestris, Grambe dicta*. *Dod. Pempt. 632.*

This Species has small Stalks and thin Leaves. It is the least of all, almost like the wild Species, with the Leaves of the first red one, but much smaller, but otherwise exactly alike. It is town for its Seed, from whence Oil is made, which is sold for Rape Seed Oil. There is a Confusion amongst Botanists about this Plant, insomuch that I

suspect they do not clearly understand what they write.

Brassica maritima, arborea seu procerior, ramosa. *Mor. Hist. Oxon. Part. 2. 208.* **The maritime Tree, or taller branched Colewort.** This is the *Brassica sylvestris* of Gerard and Parkinson, which they call *Wild Colewort* in English.

The Description of red Colewort given above, may very well agree to this, so that I am in Doubt whether it be a different Species from it or no: As for its growing near the Sea, that is certainly accidental: And then it's common to this Species, with the common red Colewort, according to the Testimony of *J. Bauhinus*, to hold out several Years; and then again it is common to them both to be branched, or to run out into Arms or Branches. Either therefore *J. Bauhinus* believed and described the taller maritime Colewort for the common red Colewort, by Mistake; or else the common red Colewort, and this taller maritime Colewort, are one and the same Species.

Mr. Ray observed this Plant on Dover Cliffs, and other such-like Places near the Sea.

22. *Brassica peregrina, moschum olens*. *H. R. Par.* **Foreign Colewort, smelling of Musk.**

23. *Brassica campestris, perfoliata, flore albo*. **Thoroughwar, Field Colewort, with a white Flower.** *Perfoliata siliquosa*. *J. B. 2. 835.* *Brassica campestris ima*. *Clus. Hist. cxxvii.*

It is a Cubit and a half high, says *J. Bauhinus*, a Foot high, says *Clusius*, with a small taper, whitish Stalk, and divided into Wings coming out of the Bosom of the Leaves. The Leaves are long, roundish, and not divided, resembling a Rape Leaf, of a grey Colour, a little stiff, flat, brittle, and look as if they were thrust through by the Stalk, and of an oleraceous Taste. The Flowers are whitish, and the Pods very long and quadrangular, in which is contained small, dark reddish Seed. The Root is small and white.

Clusius found this and the following Colewort growing in the Fields, and flowering in the Month of March in Murcia, along the Road that leads to Lorca; and *J. Bauhinus* found it in the Fields among the Corn, about

Marback,

Marback, in the Dutchy of *Wirtemberg*. It does not grow wild in *England*, says *Mr. Ray*, so far as I can learn, tho' *Lobel* calls it *Perfoliata Napifolia Anglorum filiquosa*.

24. *Brassica campestris*, perfoliata, flore purpureo. *Thorough-wat*, *champan Colewort*, with a purple Flower. *Perfoliata filiquosa*, *purpurea Clusie*. *J. B.* 2. 836. *Brassica campestris*, *purpureo flore*. *Clus. Hist.* cxxvii.

This Species has firmer Rods, and not so much branched, whose Leaves at Top are somewhat dented. The Flowers are like the Flowers of the former, but larger, equal in Bigness to the Flowers of *Stock-gilly flower* or *Dames-violet*, but in Colour like the Flower of *Greek Moonwort*, viz. purple. The Pods and the Seed are like the former. Tho' the Root be hard, and furnish'd with several Fibres, yet it is not lively, but commonly dies as soon as the Seed is ripe.

25. *Brassica Alpina*, perennis. Perennial Colewort of the Alps.

26. *Brassica Cretica*, fruticosa, folio subrotundo. Shrub, Candy Colewort, with a roundish Leaf.

27. *Brassica orientalis*, perfoliata, minima, flore luteo, parvo. The smallest oriental Thorough-wat Colewort, with a small yellow flower.

28. *Brassica orientalis*, perfoliata, flore albo, filiqua quadrangula. Oriental Thorough-wat Colewort, with a white Flower, and a quadrangular Pod.

29. *Brassica Thracica*, campestris, perfoliata, flore luteo. Thorough-wat, champan Colewort of *Thrace*, with a yellow flower.

From this Genus must be excluded *Brassica maritima*, *monospermos*. *C. B. Pin.* 112. which is a Species of *Crambe*. *Brassica sylvestris*, foliis circa radicem *Cichoraceis*. *C. B. Pin.* 112. which is a Species of *Turritis*, as well as the following. *Brassica sylvestris*, hispida, non ramosa. *C. B. Pin.* 112. *Brassica sylvestris*, ramosa, hispida. *C. B. Pin.* 112. Edit. 2.

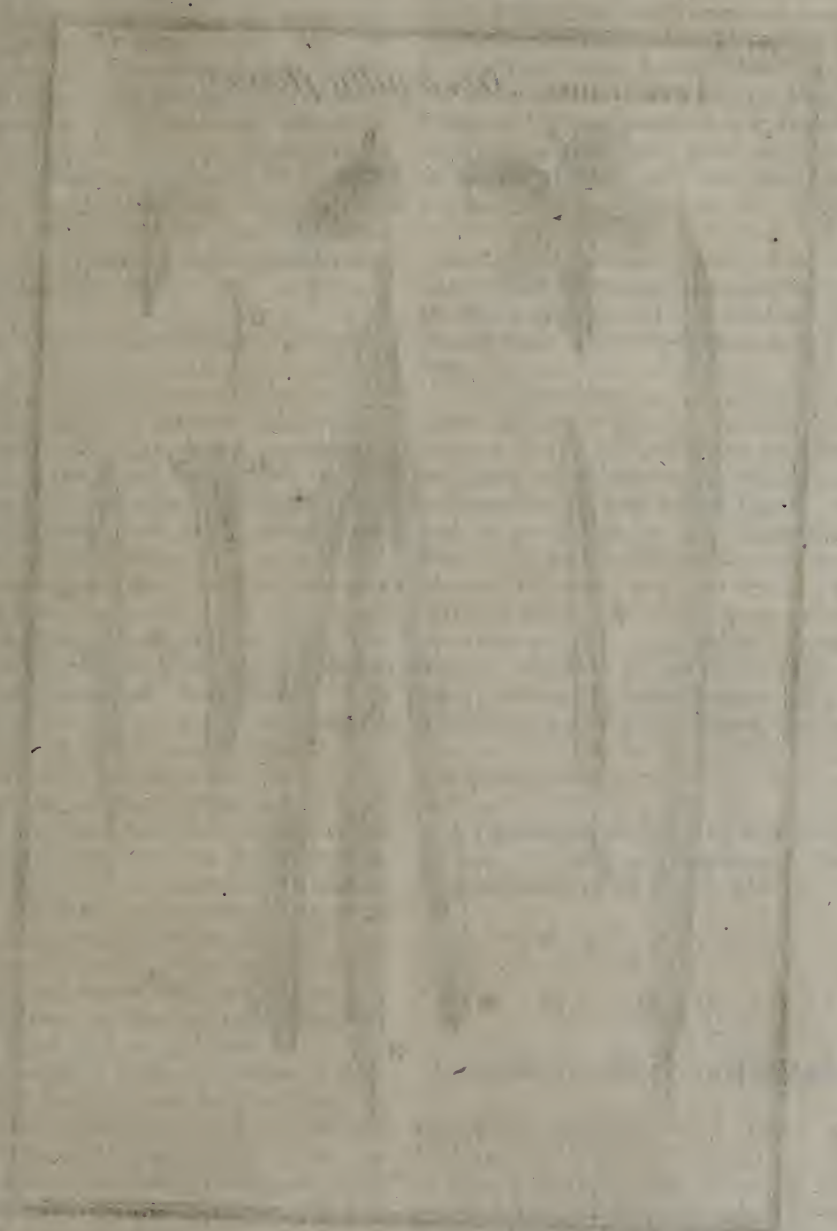
Brassica is the *Varacea* of *Cato*. It seems to *Festus* and *Varro* to be so called from *Præseco*. This is indeed a strained Etymology, but it will appear more natural, if we consider two Things: One is, That the Words compounded of *Seco* commonly change the *e* into an *i* in the Composition, from

whence come *disseco*, *subseco*, and others, of which *Aldus* has written at large in his *Orthographia*: The other is, That in many Words *b* sounded like *p* of old, concerning which you may consult *Lipsius de Pronunciat. L. L. cap.* 12. Some are of Opinion that it is called *Brassica* quasi *Passica*, because the Head is cut off from the Shaft or Stock, & *passa fiat*, and thus becomes a Sufferer. Nay, this very Etymology is attributed to *Varro* himself by *Grapaldus*, *Raderus*, and others. But *Varro* and *Festus* writ the very same Thing: For the former writes thus, *lib.* 4. *Brassica ut Præsica, quod ex scapo præsecetur*. And the Place is thus read not only in the later Editions, but likewise in that of *Aldus*, in the Year 1513, and in that of *Milan*, 1500. The third Opinion of the Criticks is, That it is derived from the Greek Word *βρασσα* *brasso* to devour, because the Antients eat it greedily. The fourth is the Etymology of *Jos. Scaliger*; for he teaches in *Conjectaneis*, that *Brassica* is so called from the Greek Word *πεγρία*, as if you would say a Garden Pot-herb: For *πεγρία* signifies the Bed, in a Garden, from whence *Pratum* received its Name. We should prefer this Etymology to all the rest unless *Brassica* were a Word from *Gracia major*, which instead of that, said *βρασσα*. But enough, and I am afraid too much, of this dry Criticism.

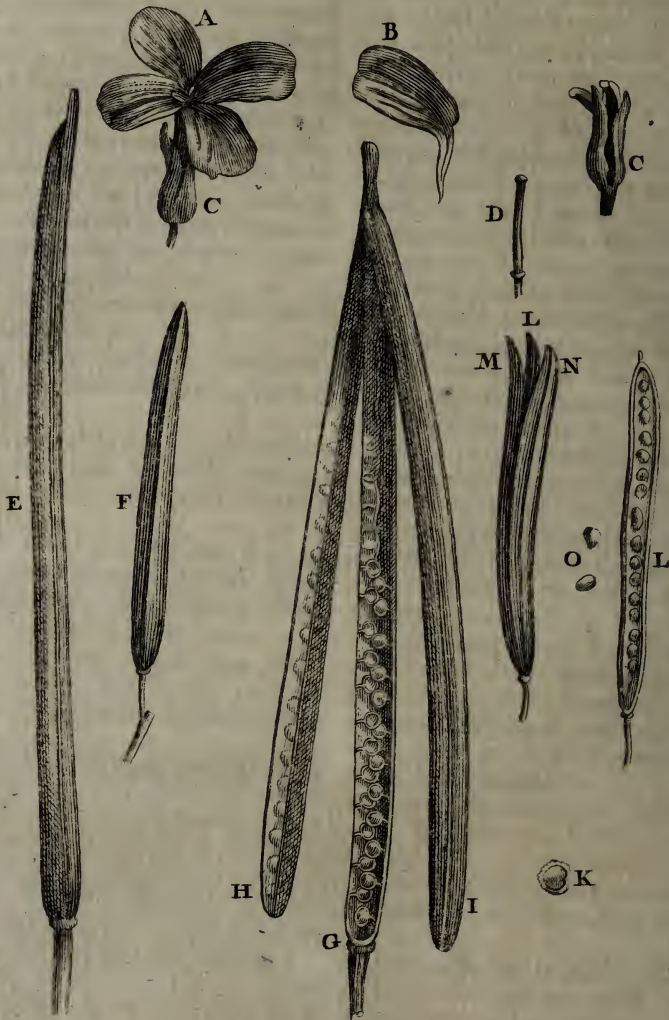
Brassica was likewise called *Caulis* by the modern Botanists, *quod præ cæteris herbis insigni caule vigeat*, because it grows with a larger and stronger Stalk than other Herbs: And from hence very probably came our *Cole* or *Colewort*.

It is a just Observation of *Caspar Hoffman*, That the Leaves of *Colewort* have something saltish, nitrous, and a little bitterish on their Surface, mixed with a certain Acrimony; whereas in the inner Part they are waterish and cold.

Pena tells us, *Adv.* 91. That the whiter they are, the less they have of Saltiness and Nitrosity; but on the other Hand, the redder they are, the more they have of both. The first therefore in his Opinion are the properest to be eat; and the last are the properest for making of Glysters and other Cleaners.



Leucoium. *Stock-gilly-flower.*



Galen writes, That *Colewort* has contrary Faculties of loosing and binding the Belly: For if you would have the former, says he, you must either order it to be eat slightly boiled with its Broth, or only the Broth alone; but if you would have the latter, then you must pour out the first Broth, and pour on other warm Water, (for this he advises particularly) and having ordered this likewise to be poured out after it has boiled sufficiently, you must give the Herb it self to be eat without the Broth; which will be so much the better for your Purpose, the oftner the Water has been poured out, and the boiling repeated. From hence you have this Line of the *Schola Salernitana*,

Fus caulis solvit, cujus substantia stringit.

Colewort, in the Opinion of *Galen*, and almost all Physicians, in whatever Manner you prepare and dress it for Food, produces in the Body a thick and melancholy Juice; which any one may easily learn from his own Experience, from the fetid disagreeable Belchings which it raises.

I my self have seen, says *Simon Pauli*, Warts anointed with the Juice of *Colewort* vanish in a Fortnight's Time, as it were by a sort of a Miracle, on a Maid whose Hands were all covered over with Warts, which she suffered to dry of their own Accord, without wiping off any of the Juice.

Julius Alexandrinus assures us, That he has known a long sinuous Wound that reached from the Shoulder almost to the very Buttocks, in which extreme Part it always voided a great deal of a certain sanious Matter, but was not deep, nor reaching further in than the carneous Membrane, after all other Remedies had proved ineffectual, to have been cured and healed up in a few Days by the Application of the Leaves of *Colewort* boiled in black and rough Wine.

Camerarius says, That the Leaves of *Colewort* boiled in Wine are very effectual in Ulcers and the Leprosy. And *Tragus* says, That *Colewort* has so much Efficacy, that the Urine of those that eat it, will cure Fistula's, Cancers, Tettors, and other such Distempers.

I observe from *Platerus*, That in the Beginning of an Inflammation of the Jaws, the

Water distilled from the acid Liquor in which we use to preserve and pickle Cabbage, is generally used with great Success.

When a certain Person was so miserably afflicted with the Scurvy, that his whole Body and his Legs were all covered over with Spots, and his Limbs were so very stiff that he could not walk, he was ordered to drink for his common Drink every Day, three Pounds of Wine, in which four Handfuls of shred *Colewort* had been macerated, with half a Dram of Ginger, and two Drams of Cinnamon. This is taken from the Observations of *Heurnius*, Professor of Physick at *Leyden*.

All the Antients with one Consent agreed, That *Colewort* prevented Intoxication by Wine or strong Drink, and the Moderns confirm this by their own Experience and Observation.

The Decoction of the Flowers brings down Women's Terms, and hinders Conception, as 'tis said, if given in a Pessary; and taken with Honey it removes Hoarseness, and recovers the Loss of the Voice. It cures such as are entering into a Consumption. The Pulp of the middle Ribs of *Colewort* boiled in Almond-milk, and made up into an Electuary with Honey, is very proper for such as are short-winded and purisy. *Colewort* is thought effectual for all the Diseases of the Body, and therefore *Chrysippus* wrote a whole Volume concerning its Vertues, and applied them to all the Parts of the Body. And the old Romans having expelled Physicians out of their Territories, did for six hundred Years maintain their Health, and cured their Diseases, by using and applying it for their only Medicine in all their Ailments.

TABLE CVIII.

GENUS. II.

Leucoium, Stock-gilly-flower.

Stock-gilly-flower is a Plant with a Flower in Form of a Cross A, consisting of four Leaves B: Out of whose Flower-cup C, rises the Pointal D, which afterwards turns to a Fruit or Pod EF, which is long, flat, and divided into two Cells, by an intermediate Partition GI, to which the

K k k

Valves

Valves H I, M N, adhere on both Sides, and furnished with smooth Seeds, which are orbicular K O, and generally broad-brimm'd.

The Species of this Plant are,

1. *Leucoium incanum, majus. C. B. Pin. 200.* The great hoary Stock-gilly-flower. *Leucoium hyemale* & *diu durans, etiam album. J. B. 2. 874.* *Leucoium candidum, majus. Dod. Pempt. 159.*

This is the *Leucoium album, five purpureum, five violaceum* of Gerarde; and the *Leucoium simplex sativum diversorum colorum* of Parkinson. Stock-gilly-flower.

It was not so much the Colour of the Flowers, as that of the Stalk and Leaves that gave Name to this Plant: Seeing the Leaves, which are irregular, half an Inch, an Inch, and sometimes two Inches broad at least, one or two Palms long, even round the Edges, are all over white; having a blunt Point, and being covered with a hoary and soft Down. The Stalk, which is a Cubit, or a Cubit and a half high and better, ligneous, taper, and split into many Branches, is likewise hoary and woolly. The Flowers stand upon the Tops of the Branches, breaking forth out of an oblong, hairy Flower-cup, being large, composed of four oblong Leaves that are roundish at the Point, either of a red or purple Colour, either deep or faint, and even of a white Colour, and having a most delicious fragrant Smell; to which succeed Pods a Palm or half a Foot long, flat when ripe, with a Point split in two, containing two Rows of Seeds, which are flat, orbicular, reddish in the Middle, begirt with a whitish Border or Fringe, and of a somewhat acrid Taste. The Root is white and ligneous.

There is a great Variety in the Flowers of this Plant: For some of them are white, some carnation, some rosey, some purple or violet, some of a bloody Colour, or of a charming Red, and others, in fine, of various Colours, viz. white, painted or variegated either with purple, pleasant red, rosey or violet-coloured Spots and Lines. *C. Bauhinus* says, That he never saw any of this Genus with a blue Flower; and yet *Tragus* mentions one which he calls *Leucoium seu viola cœrulea*. *C. Bauhinus*, in his *Phyt.* among the Colours of the Flowers, names yellow; but his Bro-

ther, *J. Bauhinus*, does not believe there is any of this Genus with a yellow Flower; and *Mr. Ray* says, He never saw any such: But our *Parkinson*, in his *Paradise*, mentions a Species of Stock-gilly-flower by this Designation, *Leucoium sativum albedo-luteum simplex*, whose Leaves are greener than the common Sort; the Flowers of a pale yellow Colour, and almost white, but differing in nothing else from the Description of the common Sort.

2. *Leucoium incanum, majus, flore cinereo. C. B. Pin. 200.* The great hoary Stock-gilly-flower, with an ash-coloured flower.

3. *Leucoium purpureum vel rubrum. C. B. Pin. 200.* Purple or red Stock-gilly-flower. *Leucoium hyemale* & *diu durans, purpureum* & *roseum. J. B. 2. 874.* *Leucoium purpureum. Tabern. Icon. 309.*

4. *Leucoium incanum, majus, coccineum. Mor. Hist. Oxon. Part. 2. 240.* The greater hoary, crimson Stock-gilly-flower.

5. *Leucoium violaceum. Tabern. Icon. 310.* Violet-coloured Stock-gilly-flower.

6. *Leucoium flore ex purpura puniceo. C. B. Pin. 200.* Stock-gilly-flower, with a Flower of a Colour betwixt scarlet and purple.

7. *Leucoium incanum, minus. C. B. Pin. 200.* The lesser hoary Stock-gilly-flower, or July Flower. *Leucoium æstivum flore purpureo* & *roseo* & *albo. J. B. 2. 875.* *Leucoium minus* & *annuum. Dod. Pempt. 159.*

It springs up with two Leaves like the Winter Stock-gilly-flowers, but smaller and tenderer; the Flowers being sometimes purple, sometimes rosey, and sometimes white. It differs, says *Lobel*, from the greater Stock-gilly-flower, not in Shape, but only in Size. It has alike Stalks and Leaves, but smaller. Nor are the Flowers, continues he, of one and the same Colour, but are either white, reddish or scarlet, like the greater Sort; and the Pods and Seeds are also alike.

8. *Leucoium incanum, majus, multiplex, flore rubro. C. B. Pin. 200.* The greater hoary Stock-gilly-flower, with a red flower. *Leucoium multiplici flore. Dod. Pempt. 159.*

9. *Leucoium incanum, majus, multiplex, flore purpureo. C. B. Pin. 200.* The greater hoary Stock-gilly-flower, with a purple

ple flower. *Leucoium flore purpureo, pleno.* Eyst.

10. *Leucoium incanum, majus, multiplex, flore purpuro-violaceo.* C. B. Pin. 200. The greater hoary Stock-gilly-flower, with a Flower of a violet-purple Colour. *Leucoium five Keiri purpuro-violaceum, pleno flore.* Suvert.

11. *Leucoium incanum, majus, multiplex, flore albo.* The greater hoary Stock-gilly-flower, with a white flower. *Leucoium flore pleno, albo.* Eyst.

12. *Leucoium incanum, majus, variegatum, simplici flore, striis inæqualibus notato.* C. B. Pin. 200. The greater hoary variegated Stock-gilly-flower, with a single Flower, marked with unequal Streaks.

13. *Leucoium variegatum, album, rubris maculis.* Eyst. Variegated white Stock-gilly-flower, with red Spots.

14. *Leucoium variegatum, purpureis maculis.* Eyst. Variegated Stock-gilly-flower, with purple Spots.

15. *Leucoium incanum, majus, variegatum, pleno flore.* C. B. Pin. 201. The greater variegated Stock-gilly-flower, with a double Flower.

16. *Leucoium purpureum, variegatum, sanguineis maculis signatum.* Brey. Purple variegated Stock-gilly-flower, marked with bloody Spots.

17. *Leucoium incanum majus, variegatum, pleno flore, foliis in ambitu argenteis.* H. L. B. The greater hoary variegated Stock-gilly-flower, with a double Flower, and Leaves with silver Borders.

18. *Leucoium pleno flore, album, sanguineis maculis signatum.* Eyst. White Stock-gilly-flower, with a double Flower, and marked with bloody Spots.

19. *Leucoium pleno flore, album, purpureis maculis signatum.* Eyst. White Stock-gilly-flower, with a double Flower, and marked with purple Spots.

20. *Leucoium album odoratissimum, folio viridi.* C. B. Pin. 202. The most sweet-smelling Stock-gilly-flower, with a green Leaf. *Leucoium hyemale, diu durans, flore albo, folio viridi, & livido, glabro.* J. B. 2. 875.

This Species has a Root that is divided into many Parts; with a Stalk that is green,

branched, and sometimes as thick as one's little Finger. The Leaves are smooth, shining with a black green, thick, resembling the Leaves of *Wall-flower*. The Flowers are white, and smell very sweet, especially in an Evening, like *Dames-violet*; to which succeed long, thick, and green Pods full of smooth Seeds.

It will endure several Years, if it be kept in a Cellar or Vault during the Winter.

21. *Leucoium vernum, perenne, album, majus.* The greater white, vernal, perennial Stock-gilly-flower. *Draba alba, filiquosa.* C. B. Pin. 109. *Hesperis Alpina, five muralis minor, repens.* J. B. 2. 880. *Draba secunda.* Clus. Hist. cxxv.

The Root creeps along obliquely almost upon the Surface of the Ground, and then sends down a great many Fibres, and has besides several Heads. There are many Leaves spreading in a Circle on the Ground, growing broader from a narrow Bottom by Degrees, being sinuated and dented, whitish, and in the Winter reddish, hairy, resembling the Leaves of the *Barbarea muraria*, having an acrid Taste; but such as grow upon the Stalks have a broad Bottom, by which they encompass them, and no less dented than the others. The Flowers on the Tops of a Stalk nine Inches high, and of the Branches, are many, growing in Clusters, whitish, and are succeeded in a long Series by Pods two or three Inches long, otherwise almost a Palm and a half long, narrow and flat, containing reddish and foliaceous Seeds, of an acrid Taste.

Mr. Ray observed this Plant on the Mountains of *Fura* and *Saleva* near *Geneva*, especially in moist Places, near Springs. It grows on the Tops and in the Holes of Walls, and in the Cliffs of Rocks. It flowers in *April*.

22. *Leucoium vernum, perenne, album, minus.* The small vernal, perennial, Stock-gilly-flower.

23. *Leucoium Hesperidis folio.* Stock-gilly-flower with a *Dames-violet* Leaf. *Glastrifolia Cichoroides* F. Baubini, & *Turritis 2da Clusio.* J. B. 2. 836. *Turrita major Platan.* Clus. Hist. cxxvi.

It sends up many Leaves from the Root, that are larger than the Leaves of common *Tower-mustard*, somewhat curled and sinuated about the Edges, but not quite so rough, and

of a fainter green Colour: Among which it sends up a Stalk, and sometimes more, generally two Cubits high, divided into several Branches; along which are stretched Leaves without any Order, embracing them with a very large Bottom, almost like the Leaves of the *Perfoliata siliquosa*. On the Top of the Stalk it bears many Flowers, somewhat larger than the Flowers of the common *Tower-mustard*, sometimes of a paleish white Colour, and sometimes altogether snowy; to which succeed long Pods, with one of the Seeds somewhat thicker. The Root is white, thicker and harder than the Root of the other, and has not so many Fibres, is not lively, but withers the second Year after it has bore Seed.

It is rarer to be met with than the common *Tower-mustard*, and seems to delight more in the Shade. It flowers in April and May.

J. Baubinus asks, whether the *Brassica sylvestris foliis circa radicem Cicboraceæ*. C. B. be not the same Plant with this. And indeed, says Mr. Ray, when I diligently compared the Description of them both together, they seemed to be perfectly the same.

24. *Leucoium maritimum, minimum, Hispanicum, vernum, foliis Erucae*. The smallest maritime, vernal, Spanish *Stock-gilly-flower*, with Rocket Leaves.

25. *Leucoium maritimum, sinuato folio*. C. B. Pin. 201. Maritime *Stock-gilly-flower*, with a sinuated Leaf. *Leucoium maritimum, latifolium*. J. B. 2. 875. *Leucoium marinum, majus*. Clus. Hist. 298.

This *Stock-gilly-flower* has broad, stiff, hairy, and deeply jagged Leaves, which are bored through by the Stalks. The Flowers stand upon Stalks a Palm or a Palm and a half high, and are of a purplish blue Colour. The Pods are much shorter and smaller than those of common *Wall-flower*, taper, and containing little oblong taper Seeds. From whence *Morison* would conclude, that this Plant rather belongs to the *Dames-violet* than to the *Stock-gilly-flowers*.

It loves to grow near the Sea. It grows likewise on the Declivities of Mount *Capouladon* among the Rocks, and flowers in the Spring, in a Place called *las Cambrettes*.

26. *Leucoium maritimum, candidum*. C. B. Pin. 201. White maritime *Stock-gilly-*

flower. *Keiri marinum flore candido*. Lob. Icon. 332.

You may see the Figure of this Plant in *Lobel*, *Gerarde* and *Clusius*; and that which immediately preceds is thus described by *Parkinson*.

This *Sea Stock-gilly-flower* has several long, thick, whitish, soft Leaves, lying upon the Ground, one within another in a round Compass, and are stiffer than the other *Sea Kinds*, or the *Garden Kinds* already set forth; jagged also or cut in on both Sides evenly, into deep Dents like the *Knaggs* of *Buks-horn*, which makes it look the more beautiful; Thus doth it continue for the first Year; but the next Year it bears a hoary white Stalk, about three Foot high, branching forth into many Divisions, pretty thick, but weak, scarce able to stand upright, whereon grow narrow Leaves, little or nothing jagged about the Edges, and a Number of Flowers at the Top one above another for a good Space, each of them consisting of four broad pointed Leaves, but not quite so sweet as the other *Stock-gilly-flowers*, yet somewhat larger, and of a blueish purple Colour, almost like a Dove or Crane Colour; after which come such like long Pods as the rest have, with Seeds lying in a double Row in the same Manner, larger, and of a darker Colour. The Root is white, hard and long, spread into many Branches, which abides not after it has yielded Seed, but perishes as the other *Sea Kinds* do.

27. *Leucoium luteum, maximum, foliis tuberculis oblongis*. C. B. Pin. 202. The greatest yellow *Stock-gilly-flower*, with Leaves full of little knobs or knots. *Flos Cheiri Eystettensis, maximus*.

28. *Leucoium luteum, magno flore*. C. B. Pin. 202. Wall-flower, with a large Flower. *Flos Keiri simplex, medius*. Eyt.

This Species differs from the common *Wall-flower*, in Bigness and Colour, because it resembles a little Shrub full of Branches, and all over green. It has larger, green and shining Leaves; large Flowers, (so that one of its Leaves is almost as big as the whole Flower of the common *Wall-flower*) which are very sweet-smell'd, and of a brighter yellow Colour, [*Parkinson* says of a brighter golden Colour.] and the Spike of Flowers is much larger than in that, and the Flowers are

are neither so soon withered or shrivelled. The Pods are thicker and shorter, and end in a small Point. It is more tender than the common *Wall-flower*, nor does it wanton so much in its Branches, nor does it so easily take Root and propagate by its Branches or Shoots; Nor does it easily bear our Winters, unless shelter'd from violent Cold.

C. Bauhinus makes the *Leucoium luteum maximum foliis tuberculis obsitis*, which immediately preceeds this, to be a distinct Species from it, whose Flowers, says he, are broader than a Dollar. And F. Bauhinus sets down another which he calls *Leucoium luteum arborescens*, whose Flower comes to be as big as the Coin which they call *Julius*, tho' he never saw any of that Bigness himself. But Mr. Ray will not allow any specifick Difference betwixt these Plants.

29. *Leucoium luteum, ferrato folio, flore grandiore. C. B. Pin. 202. Wall-flower, with a dented Leaf, and a large Flower.* This is the *Leucoium luteum montanum alium* of Pona; and the *Keiri sive Leucoium montanum luteum* of Parkinson.

This Plant rises with several upright, firm, ligneous Stalks, sometimes exceeding the Height of a Man; beset with short, green, sharp-pointed Leaves that are dented round the Edges. The Flowers are single, larger than the Flowers of the common *Keiri*, and as sweet-smelled. The Pods are smaller, and replenished with reddish Seed. The Root is ligneous, spread out into many Branches, and in the warmer Countries lives many Years.

30. *Leucoium luteum, vulgare. C. B. Pin. 202. Common Wall-flower. Leucoium luteum, vulgò Cheiri, flore simplici. J. B. 2. 872. Leucoium luteum. Dod. Pempt. 160.*

It over-abounds with Roots, Shoots or Branches, which are ligneous and whitish, and are beset with thick-set Leaves that are not tied to any Foot-stalks, above an Inch in Length, and gradually widening from a narrow Bottom, being greenish or whitish, and that chiefly on the under Side, and are of a somewhat acrid Taste. The Flowers are numerous, yellow, and very sweet-smell'd, but of an ungrateful Taste, with six pale Stamina and a Pointal, that lie hid almost in the Middle. To these succeed long Pods, containing broad, reddish Seed, of an acrid and bitter Taste.

It grows every where in great Plenty upon Walls.

31. *Leucoium luteum, pleno flore, majus. C. B. Pin. 202. The greater Wall-flower, with a double flower. Leucoium luteum, pleno flore. J. B. 2. 873. Leucoium flore luteo, pleno, majus. Eyst.*

This does not seem to differ in Specie from that with the single Flower but only in Culture; for some affirm, That if the tender Plant be often transplanted before it has bore Flowers, it will change the single to a double Flower; from whence it appears, that this is owing to Care and Culture.

32. *Leucoium flore pleno, minus. C. B. Pin. 202. The lesser double-flowered Wall-flower. Viola petraea, lutea, multiplex. Tabern. Icon. 306.*

33. *Leucoium luteum, flore pleno, patulo. Wall-flower, with a double, spreading Flower. Keiri seu Leucoium luteum, alterum, flore pleno. Raii Hist. 782.*

The Flowers in this are not ranged Spike-fashion as in the preceeding ones, but spread more into Breadth, so that they all blow at one and the same Time, and not gradually one after another, as in the former Kinds; and are of a paler Colour.

34. *Leucoium majus, flore pleno, ferrugineo. The greater Wall-flower, with a double flower of a rusty Colour. Keiri sive Leucoium luteum, majus, flore pleno ferrugineo. Park. Parad. 257.*

The Flowers are not much larger than those of the common *Wall-flower* with a double Flower, but they are of a deeper Dye, the back Part of the Leaves being of a brownish red Colour, from whence they appear as if they were variegated. Mr. Ray says, He has often seen this in the Gardens of the Curious; and that it is much valued for its beautiful Flower.

35. *Leucoium majus, flore pleno, ex purpureo colore & aureo varium. Hor. R. Par. The greater Wall-flower, with a flower variegated with a purple and a golden Colour.*

36. *Leucoium angustifolium, Alpinum, flore sulphureo. H. R. Par. Parrow-head Wall-flower of the Alps, with a Blim-stone-coloured Flower.*

37. *Leucoium Creticum, montanum, minimum, flore luteo, nunc pleno, nunc simplici.*

plici. The smallest mountain Wall-flower of Candy, with a yellow Flower that is sometimes single, and sometimes double.

38. *Leucoium luteum*, Græcum, saxatile, humiliss. Greek low, Rock Wall-flower.

39. *Leucoium orientale*, Elychrysi folio. Oriental Wall-flower, with a Goldlocks Leaf.

40. *Leucoium orientale*, siliqua eleganter lunata. Oriental Wall-flower, with a Pod beautifully peaked.

41. *Leucoium orientale*, luteum, foliis dentatis, siliquis planis. Oriental Wall-flower, with dentated Leaves and smooth Pods.

The Greek Word λευκόνιον is given to all these Species, not because of their Flowers, which differ very much in their Colours, but because of their Leaves, which are white and hoary; and this may be discovered from *Dioscorides* himself, who seems not to be determined in naming several Plants by this Designation from the Flowers, but only from the Leaves. Now *Leucoium* signifies a white Violet; and the Antients gave the Name of Violet to many Plants, that have another Name with the Moderns. And *Pliny* says, That in his Time the Name of Violet was given to very many Flowers that were put into Garlands, for the Sake of their Beauty and sweet Smell, Custom prevailing above Reason.

Galen assures us, That the Sea Stock-gilly-flowers are of the same Quality with those of the Garden Kind; only that they have not so sweet a Smell; and are almost esteemed as effectual as the ordinary yellow *Leucoium* or Wall-flower, they being of a cleansing Quality and subtle thin Parts. The Garden Stock-gilly-flowers, but especially their dried Flowers, rather than the fresh and green, boiled in Wine, and the Decoction drunk, rectifies the Indisposition of the Liver and Reins, provokes the Courses, and cures the Hardness and Pains of the Mother, expels the Secundines or After-birth, and the dead Child, nay, and the living One too, says *Galen*, if it be drunk after the Child is quick: A Bath made for Women to sit in produces the same Effect, as does the Seed or Juice taken in a Draught of Liqueur. If

the same Decoction be drunk twice a-day, it will strengthen and restore any Member become weak, loose, or out of Joint. The Decoction of the Roots in Vinegar, is accounted good for the Hardness of the Spleen, used outwardly as well as inwardly. The distilled Water of the Flowers is available to all the Purposes aforesaid; and is said to cleanse the Blood, comfort the inward Parts, ease Pains, and beget a chearful Disposition. The Juice dropped into the Eyes, cleanses and clears them from Mists and Clouds, and such Films and Skins as begin to grow over them, and take away the Sight. The Decoction of the Flowers mixed with some Honey and a little Alum is found to be a good Gargle to cure Ulcers and Sores in the Mouth; and is also proper for all other old and filthy Ulcers in any other Part.

The Flowers of Wall-flower, says *Galen*, consist of small and subtle Parts, they discuss and cleanse, are good to comfort the Heart and Nerves; they alleviate and mitigate Pains, provoke the Terms, expel the After-birth, and bring away the *Fætus*; and therefore they are used in those Medicines which the Greeks call *ρᾶβρία*, i. e. that accelerate and facilitate the Delivery.

The Conserve of the Flowers, the distilled Water, and the Infusion of the Flowers in Oil are in Use; which last prevents an Apoplexy, cures the Palsy, and is an excellent Anodyne in Wounds and Inflammations of the nervous Parts, as also in the Diseases of the Womb, inwardly applied.

Reusnerus tells us in his Observations, Observ. 2. That the Bishop of Trent made Use of the Flowers of *Keiri* taken in his own Water, against the Apoplexy and Palsy, with good Success.

Mr. *Tournefort* says, That the common Wall-flower is bitter, and has an herby saltish Taste, and that it pretty much reddens blue Paper. By a Chymical Analysis it yields, besides several acrid Liqueurs, some volatile concrete Salt, abundance of Oil, and a good deal of Earth; and thus this Plant is full of *Sal ammoniac*, of Sulphur, and of earthy Parts. The Flowers are chiefly in Use to provoke Urine, and to open the Obstructions of the Viscera or Bowels: Their Infusion cures the Green-sickness, provokes the Terms, and

and cures the Palsy. The Oil of the Flowers of *Wall-flower*, made by Infusion, is reclusive, and good for the Rheumatism.

TABLE CIX.

GENUS III.

Hesperis; Dames-violet, or Rocket.

Dames-violet is a Plant with a Flower in Form of a Cross A, consisting of four Leaves B: Out of whose Flower-cup C, rises the Pointal D, which afterwards turns to a long, taper, cylindrical Fruit or Pod EF, which is divided into two Cells by an intermediate Partition GL, to which the imbricated Valves HI, MN, do adhere on both Sides; and furnished with oblong Seeds, which are as it were cylindrical K, or globular O, and nestle as it were in the little Furrows of the intermediate Partition.

The Species of this Plant are,

1. *Hesperis hortensis*, flore purpureo. C. B. Pin. 202. Garden Dames-violet, with a purple Flower. *Hesperis flore purpureo*. J. B. 2. 877. *Viola hyemalis*, purpurea. Tabern. Icon. 108.

This Plant has several small, ligneous, and white Roots; sending up taper, hairy Stalks, a Cubit, and a Cubit and a half high and better, and full of Pith in the Middle; on which are set Leaves resembling those of *Rocket*, only they are not so much jagged, dented round the Edges, sharp-pointed, hairy, of a dark green Colour, and a somewhat acrid Taste, four Inches long, and standing upon short Foot-stalks. Out of the Wings of the Leaves break forth little Branches, on which, and on the Top of the Stalk, stand Flowers resembling *Wall-flower* in Shape, of a very sweet Smell, consisting of four Leaves, sometimes of a white and sometimes of a purple Colour, and sometimes variegated with purple Spots blended with white, and standing upon Foot-stalks above half an Inch long. The Pods are long, consisting of two Cells, that are parted by an intermediate Mem-

brane, and contain an oblong, reddish and acrid Seed.

2. *Hesperis hortensis*, flore candido. C. B. Pin. 202. Garden Dames-violet, with a fine white Flower. *Hesperis flore albo*. J. B. 2. 877. *Viola Hyemalis*, flore albo. Tabern. Icon. 308.

3. *Hesperis hortensis*, flore viridi. C. B. Pin. 202. Garden Dames-violet, with a green Flower. *Hesperis hortensis*, flore viridi, seu abortivo. Mor. Hist. Oxon. Part. 2. 251.

This Species differs from the First in Bigness in all its Parts, and has a green Flower without any Smell. *J. Bauhinus* gathered it in a Garden at *Basil*. Mr. Ray thinks that it is only a degenerate Species of the First, springing up from a Seed.

4. *Hesperis flore purpureo*, pleno. H. R. Par. Dames-violet, with a double purple Flower.

5. *Hesperis flore pleno*, albo. H. R. Par. Dames-violet with a double white Flower. *Hesperis matronalis flore multiplici*. Corn. 210.

6. *Hesperis hortensis*, flore vario, pleno. H. L. B. Garden Dames-violet, with a double variegated Flower.

7. *Hesperis montana*, pallida, odoratissima. C. B. Pin. 201. Pale mountain Dames-violet, with a very sweet Smell. *Hesperis colore inegalanti*. J. B. 2. 879. *Hesperis ima*. Clus. Hist. 296.

It rises a Cubit high, and is distributed into many Branches, which are surrounded in a confused Order by Leaves resembling those of the *Viola matronalis*, but somewhat broader and thicker, of a sourish Taste at first, but afterwards acrid and making the Mouth water. The Flowers stand upon oblong Footstalks on the extreme Branches, with Leaves shaped like those of *Stock-gilly-flower* or *Dames-violet*, not expanded, but turned inwards, of a very ugly and obsolete Colour, *i. e.* pale dark and dusky, with numberless small Veins of a dark purple Colour crossing one another on every Leaf, of no Smell at all in the Day-time, or so little that the Nose can hardly distinguish it, but in the Evening of a most agreeable and sweet Smell. To the Flowers succeed long and brawny Pods, as in the common Sort, but almost

almost quadrangular ; in which is contained reddish Seed, like the common *Dames-violet* Seed. The Root is fibrous, and at most does not continue above two Years, but after the Flowers are vanished, and the Seed ripe, it commonly perishes: But if the Stalks be cut down, and it is not suffered to bear Fruit, it sometimes produces new Shoots.

Clusius found it growing wild, and laden with Seed in *Juno* on *Prellenberg*, a Hill near *Hamburg*, and in that Part of *Hungary* which lies next to *Austria*.

Such of them as are raised from Seed use to vary very much in the Colour of their Flowers, some of them retaining the Parent Colour, whilst others of them acquire either a faint pale, or a more obsolete Colour ; but all of them have their Leaves interwoven with a vast Number of Veins of a dark purple Colour.

Johnston upon *Gerarde* thinks that this Plant does not differ in Specie from the *Leucoium melancholicum horti Eystettenfis*, since both the Flowers and the Pods of that agree to the Description of this, and the Leaves and Stalks do not much differ.

8. *Hesperis sylvestris*, inodora. *C. B. Pin.* 202. Unflavoury wild *Dames-violet*. *Hesperis Pannonica inodora*. *J. B.* 2. 878. *Hesperis* 34. *Clus. Hist.* 279.

This Plant rises a Cubit high, and bears two Sorts of Leaves : The lowermost from a small narrow Neck presently turn broad, and at last end in a Point, being furnished with sinuated Nerves : Others of them adhere to the Stalk by their broad and sessile Bottom ; and both are dented, hairy, whiter and softer than in our common *Dames-violet*. The Flowers are of a faded white, or purplish Colour, but shaped like the rest, and together with the following brawny long Pods, and reddish Seed agree with our common *Dames-violet*.

Clusius affirms, That it differs from the common Sort only in the Smell of the Flower, which is none at all in this Species, so far as he could discern.

It grows every where at the Bottoms of Mountains, and on the Borders of Vineyards situated on Hills about *Vienna*. It flowers with the common Kind in *May* and *June*.

9. *Hesperis peregrina*, siliquis articulatis. *C. B. Pin.* 202. Foreign *Dames-violet*,

with jointed Pods. *Hesperis Syriaca*. *Cam. Hort. Tab.* xix. *J. B.* 2. 879.

The Leaves are nine Inches long or somewhat less, a Palm broad, very rough and hairy, standing upon long Foot-stalks, much larger than the Leaves of the *Hesperis flore obsoleto*, and somewhat sinuated about the Edges. The Flowers stand upon shorter, but thicker Foot-stalks, shaped like the Flowers of the common *Hesperis*, but of a tawny and dusky Colour, having many small Veins running along their Leaves, very sweet-smell'd in the Night, but of no Smell at all in the Day-time. To these succeed very long Pods, bending backwards and full of Swellings, much thicker than those of *Dames-violet*, with a Flower of an obsolete Colour : The Seed is somewhat thicker ; and the Root not unlike.

Clusius says; it grows on Hills and rising Grounds in *Syria*. *Parkinson* finds Fault with *C. Bauhinus* for making the *Hesperis Syriaca* and the *Leucoium melancholicum* to be one and the same Plant. Others affirm, That the *Leucoium melancholicum* and the *Hesperis montana prima Clusii* are the same Plant. And indeed the *Hesperis Syriaca* and the *Hesperis montana Clusii* differ but very little, except in Bigness. For the *Syriaca* seems to be a much more thriving Plant, having larger Leaves, thicker Stalks, and larger Flowers, exactly of the same Colour, smelling very sweet in the Night, and having no Smell at all in the Day-time : The Pods much thicker, and the Seed a little thicker. But perhaps all these Differences may be owing to the Difference of the Soil and Climate.

10. *Hesperis allium redolens*. *Mor. Hist. Oxon. Part* 2. 252. *Dames-violet* smelling of Garlick. *Alliaria*. *Marthiol.* 843. *J. B.* 2. 883.

From a small, ligneous, white Root that smells of *Garlick*, it sends up Stalks a Cubit and a Cubit and a half high, slender, hairy, taper, channelled, and solid. The Leaves are at first round like those of *Ground-Ivy*, but much larger than they ; then they are somewhat pointed, and dented round the Edges, being of a pale green Colour, smooth, standing upon long Foot-stalks, of a Taste and Smell like *Garlick*, but milder, placed at greater Distances on the Stalks, and ranged in an alternate or no Order at all. On the
Tops

Tops of the Stalk and Branches stand many little whitish Flowers, consisting of four small Leaves standing upon very short Foot-stalks, in the Middle of which appear Chives of a yellowish green Colour. The Pods are long and corner'd, consisting of two Cells that are parted by an intermediate Membrane, and contain oblong blackish Seed.

11. *Hesperis lutea*, siliquis strictissimis. Yellow Dames-violet, with very strait and narrow Pods. *Draba lutea*, siliquis strictissimis. C. B. Pin. 110. *Arabis a quibusdam dicta planta*. Cam Epist. 342. *Draba lutea quibusdam*. J. B. 2. 870.

The Root is ligneous and white, smaller than one's little Finger, of a Taste like *Horse-radish*, but not quite so burning; from which rise several upright stiff Stalks, above a Cubit high, and branched; on which are set many Leaves alternately from Top to Bottom, all uniform, above three Inches long, and about an Inch broad, pointed from a small Bottom, by which they are joined to a little short Foot-stalk, hairy, dented, and of a milder Taste than the Root. The Flowers are like those of *Hedge-mustard*, consisting of four Leaves, to which succeed Pods containing small, long, reddish Seed.

It rises sometimes to the Height of a Man. The Plant perishes every Year, but the Root remains.

J. Baubinus saw it green on the Mountains of *Rhetia*, flowering in the Month of June: And Mr. Ray tells us he has seen it, often in moist Ground about Hedges, in *Italy*; and near *Weissenberg* in *Germany*.

12. *Hesperis Leucoid folio non serrato*, siliqua quadrangula. Dames-violet with a Stock-gilly-flower Leaf not dented, and a quadrangular Pod. *Leucoium luteum, sylvestre, angustifolium*. C. B. Pin. 202. *Leucoium luteum, sylvestre, Clusii*. J. B. 2. 873. *Leucoium sylvestre*. Tabern. Icon. 310. This is the *Keiri*, sive *Leucoium luteum sylvestre Clusii* of *Parkinson*.

This Plant has many Leaves about the Root, like the Leaves of *Wall-flower*, but narrower, green, of a bitterish Taste; among which there rises one, and sometimes more, Stalks, a Foot high and better, cornered, channelled, hollow with many Wings, and beset with Leaves in the Shape of a Keel; sustaining many yellow Flowers, resembling

Wall-flower, but smaller, and not so sweet-smelled. To the Flowers succeed oblong Pods, as in the Garden Kind, full of smooth Seed. The Root is long, whitish, and furnished with many small Fibres.

It is to be met with on those Mountains which are over the Baths at *Baden*, and in *Leytenberg*, especially in those rugged and uneven Places that are most exposed to the southern Sun. It flowers in May.

J. Baubinus says, some of the Leaves are sinuated, not half an Inch broad, an Inch, and an Inch and a half, long; and others narrow, no-wise cut, and greenish. When this Plant is cultivated in Gardens it grows one half broader and longer.

13. *Hesperis Leucoid folio serrato*, siliqua quadrangula. Dames-violet with a dented Stock-gilly-flower Leaf, and a quadrangular Pod. *Leucoium luteum, montanum, serrato folio*. C. B. Pin. 202. *Leucoium luteum, sylvestre, Pannonicum, serrato folio obtuso & acuto*. J. B. 2. 873. *Leucoio giallo, montano*. Bald. Ital. 232.

It rises with several upright, firm, ligneous Stalks, which sometimes exceed a Man's Height, beset with short, green, sharp-pointed Leaves, that are dented about the Edges. The Flowers are single, larger than those of the larger *Keiri*, and as sweet-smell'd. The Pods are smaller, and full of reddish Seed. The Root is ligneous, spreading into many Branches, and in warmer Countries lively.

14. *Hesperis siliqua corniculata, flore obsoleto*. C. B. Pin. 202. Dames-violet with a Pod shaped like a Half-moon, and an obsolete flower. *Leucoium corniculatum, saxatile, obsoleto flore*. Col. Part. 1. 262.

This has a thick long Root, which is brownish without and white within, and full of Nerves. The Stalk is half a Foot high, green and hairy, generally divided into two Wings; on the Top of which stand Flowers placed alternately, like those of *Stock-gilly-flower*, with hairy Flower-cups, of an obsolete Colour, betwixt yellow and a purplish green, having little or no Smell. To these succeed Pods four Inches long, hairy, knotty, horned, bending towards the Ground, having six or seven Seeds in each Cell. The Leaves stand upon long Foot-stalks, and are cut like *Sea-poppy*, or like the *Stock-gilly flowers* that grow in the Sands, hairy and thick, like the

Leaves of white *Henbane*, and of a disagreeable Smell. Such as stand upon the Stalk are shorter, and are joined to it without a Foot-stalk, and are not jagged, but are ragged, and divided into great Dents, like *Henbane*, but four times smaller, and broader where they adhere to the Stalks.

It flowers in *May*, and the Pods are ripe in *June*. The whole Plant, almost, has the sweetish and burning Taste of *Horse-radish*, and a heavy Smell that is not disagreeable.

15. *Hesperis maritima*, supina, exigua. The low, small, maritime Dames-violet. *Leucoium marinum, parvum, folio vircente, crassifolulo*. J. B. 2. 877.

This Species has slender Stalks a Palm high; and the Leaves that are set on it are thin-set, some of them above an Inch long, somewhat sinuated, succulent, and thickish, smooth and green. The Flowers are pretty large for the Size of the Plant, and of a purplish Colour; to which succeed Pods about half an Inch long, or a little longer or shorter, as it happens, containing small reddish Seeds, but not flat.

16. *Hesperis sylvestris parvo flore*. C. B. Pin. 202. Prodr. 103. Wild Dames-violet, with a small Flower. This is the *Hesperis sylvestris angustifolia flore parvo* of Parkinson.

The Leaves of this small *Hesperis* are narrower and longer-pointed than in the common Sorts, not quite so rough, and deeper cut in on the Edges. It has a Stalk about half a Yard high, branched towards the Top, and adorned with very small Flowers of a purplish Colour, so that one of these Flowers is not much bigger than a Leaf of the Flower of the ordinary Kind. The Pods that follow are long, but much smaller.

17. *Hesperis maritima, angustifolia, incana*. Maritime, narrow-leav'd, hoary Dames-violet. *Leucoium maritimum, angustifolium*. C. B. Pin. 201. J. B. 2. 876. *Leucoium marinum, minus*. Clus. Hist. 298.

From a thick, ligneous, white Root, at which hang several Fibres and several Heads, rise many single and branched Stalks, which are nine Inches high, pretty firm, much smaller than those of the *Leucoium marinum maximum* of Parkinson. The Leaves are small, short and white, having either no Dents, or but very gentle ones, and not so thick as

the other just mentioned. The Flowers stand upon the Branches, and are smaller than the other, of a very delightful red Colour, which becomes deeper when they begin to decay, like those of the common red *Stock-gilly-flower*, and smelling very sweet. To these succeed small and short Pods full of copious, very small and reddish Seed.

It flowers in *July* and *August*, the same Year that it is sown, and then perishes.

18. *Hesperis Africana, villula, flore coeruleo*. African, hairy Dames-violet, with a blue Flower. *Leucoium Africanum, flore coeruleo, latifolium, hirsutum*. H. L. Bat.

19. *Hesperis peregrina, foliis dentatis, floribus variis*. Foreign Dames-violet, with dented Leaves, and various-coloured Flowers. *Leucoium peregrinum, dentatis foliis, floribus purpureo coeruleis & variis*. H. R. Monsp.

20. *Hesperis Lusitana, angustifolia, folio dentato, purpurascente flore*. Portuguese, narrow-leav'd Dames-violet, with a dented Leaf, and a purplish Flower.

21. *Hesperis Hispanica, foliis incisiss, siliqua lunata*. Spanish Dames-violet, with cut Leaves, and an horned Pod.

22. *Hesperis maritima, latifolia, siliqua tricuspidi*. Broad-leav'd, maritime Dames-violet, with a three-pointed Pod. *Leucoium marinum*. Cam. Hort. Tab. 24. *Leucoium affine Tripolium Anguillare, & Leucoium maritimum Camerarii*. J. B. 2. 876.

23. *Hesperis Sicula, frutescens, siliqua tricuspidi*. Sicilian, shrub Dames-violet, with a three-pointed Pod. *Leucoium minus, frutescens, purpureum, montanum, crucigerum*. Bocc. Mus. Part. 2. 148. Tab. 111.

24. *Hesperis Sicula, Coronopi folio, siliqua tricuspidi*. Sicilian Dames-violet, with a Bucks-horn Leaf, and a three-pointed Pod. *Leucoium montanum, crucigerum, Coronopi folio*. Bocc. Mus. Part. 2. 148. Tab. 111.

25. *Hesperis Africana, major, flore coeruleo, Coronopi folio*. The greater African Dames-violet, with a blue Flower, and a Bucks-horn Leaf. *Leucoium Africanum, coeruleo flore, angusto Coronopi folio, majus*. H. L. Bat.

26. *Hesperis Africana, minor, flore coeruleo, Coronopi folio*. The smaller African Dames-violet, with a blue Flower, and a Bucks-horn Leaf. *Leucoium Africanum*,

canum, cæruleo flore, angusto Coronopi folio, minus. H. L. Bat.

27. *Hesperis maritima, supina, exigua, foliis Erucae vel Jacobææ. Small, low, maritime Dames-violet, with Rocket or Ragwort Leaves.*

28. *Hesperis Chia, saxatilis, Leucocii folio serrato, flore parvo. Rock Dames-violet of Chios, with a Stock-gilly-flower jagged Leaf, and a small Flower.*

29. *Hesperis orientalis, maritima, Leucocii folio incano, floribus variis. Oriental, maritime Dames-violet, with a hoary Stock-gilly-flower Leaf, and variegated Flowers.*

30. *Hesperis orientalis, maritima, Leucocii folio incano, flore minimo. Oriental, maritime Dames-violet, with a hoary Stock-gilly-flower Leaf, and a very small Flower.*

31. *Hesperis orientalis, Leucocii folio, siliquis corniculatis & intortis. Oriental Dames-violet, with a Stock-gilly-flower Leaf, and twisted and crooked Pods.*

32. *Hesperis orientalis, Elichrysi folio, flore luteo. Oriental Dames-violet, with a Goldlocks Leaf, and a yellow Flower.*

33. *Hesperis orientalis, Glasti folio. Oriental Dames-violet, with a Woad Leaf.*

34. *Hesperis orientalis, Glasti folio, flore magno violaceo. Oriental Dames-violet, with a Woad Leaf, and a large Violet-colour'd Flower.*

35. *Hesperis orientalis, Scordioides, Hederæ terrestris folio. Oriental Dames-violet, resembling Scordium, with a Ground-ivy Leaf.*

Hesperis differs from *Leucoium* in its cylindrical Pods, and swelling Seeds, which are not brimmed, and nestle as it were in the Furrows of the intermediate Partition.

It is called *Hesperis*, because it strikes the Nose with a grateful and agreeable Smell chiefly in the Evening, but breathes little or no Smell at all in the Day time; and this is testified both by *Theophrastus* and *Pliny* in their Account of the *Hesperis*. This Plant goes by various Names; for *Tragus* calls it *Viola alba*, and *Persica Hermolai*; *Gesner*, *Dodonaus*, and *Lugdunensis* call it *Viola Matronalis*; and *Lobel*, *Viola Damascena*. Some call it *Viola hiberna* sive *Hyemalis*, and others, *Viola Moschatella*. We in *English* call it *Dames violet*,

and *Damask-violet*, *Queen's Gilly-flowers*, and some, *Rogue's Gilly-flowers*; but why, it is not easy to determine.

All the Sorts of *Hesperis* are hot and biting to the Taste, like *Rocket*; and therefore *Dodonaus* thinks they may be Species of it, being so like it both in Taste and Qualities. He says that the distilled Water is very effectual to procure Sweating. *Clusius* further adds, That it provokes Urine, and relieves such as have a Cough, or are short-winded. It is also of a cutting Quality for rough Phlegm, of a digesting Quality for raw and indigested Humours, and of a cleansing Quality for foul and filthy Cankers, Ulcers and Sores, either inwardly in the Mouth, or outwardly in any Part of the Body.

The 10th Species, which is called in *English*, *Jack by the Hedge*, or *Sauce alone*, is used for Sauce and Seasoning. It is used by the Country People to season their salt Mear. When it is green and fresh, it is said to provoke Urine; and when dried, it is thought a good Antidote against Poison, if boiled in Wine. The Powder of it mixed with Rosin and Honey, is good against an inveterate Cough. Steeped in sharp Vinegar, and applied to a gouty Part, it eases and softens the Pain.

It has a singular Vertue of resisting Putrefaction; for which Reason the Herb it self, with Honey and its Juice thickened, are put into Cataplasms and Ointments against the Gangrene, and other putrid and malignant Ulcers.

The Seed made up into a Plaister, and laid to a Womens Privities, cures the Suffocation of the Womb.

Camerarius says, that the Decoction of this Herb in Oil and Water, cures those who are troubled with an Asthma.

Some boil the Leaves of this Herb, and put the Decoction, as one Ingredient, into Glysters, against the Cholick, Stone, and Pains in the Kidneys.

As it resembles the true *Scordium* in its Smell, so likewise in its Vertues. *G. Fabricius Hildanus*, Centur. 2. Observ. 44. says, that the Juice of this Plant is an excellent Remedy for Gangrenes, and for putrid and filthy Ulcers, as he had learnt by repeated Experience. No One ought to wonder, therefore, that some of the Antients, but

especially of the *Arabian* Physicians, did sometimes substitute *Alliaria* in the Place of the true *Scordium*; not that they were ignorant of *Scordium*; but because they found much the same Vertues in *Alliaria* as they did in *Scordium*. Besides, there are many Countries where the *Scordium* does not grow, and therefore cannot be got till it is dried and wasted, whereas *Alliaria* grows almost every where.

This Plant, says Mr. *Tournefort*, is very bitter, and stinks of *Garlick*; which discovers to us, that it contains a Salt which has a great Affinity to *Sal ammoniack*, mixed with abundance of Sulphur and Earth: For by a Chymical Analysis, *Alliaria* yields, besides the acid Phlegm, a volatile concrete Salt, some fixed Salt that is very lixivial, a great deal of Oil and Earth. *Cesalpinus* commends its Seed against the Vapours: But this Author and *Fabricius Hildanus* say, That the Powder of the Leaves of *Alliaria* cures carcinomatous Ulcers.

Mr. *Lemery* says, That this Plant contains a great deal of essential Salt, and Oil half exalted: It is cutting, attenuating and cleansing; it provokes Urine, is proper for resisting of Poison, and good against the Biting of Serpents: It is an effectual Remedy for the Dyntery, strengthens the Stomach, and overcomes the Vapours. It is used in Decoction.

GENUS IV.

Turritis, Tower-mustard.

Tower-mustard differs from *Hesperis* or *Dames-violet*, in its smooth Pods; from *Leucoium*, in its Seeds not being marginated or brimm'd; and from *Colewort*, both in its Make and its smooth Pods.

The Species of Tower-mustard are,

1. *Turritis*. *Lib. Icon.* 220. **Tower-mustard.** *Brassica sylvestris, hispida, non ramosa.* C. B. Pin. 112. Edit. 2. *Brassica sylvestris, foliis integris & hispidis.* C. B. Pin. 112. Edit. 1. *Turritis vulgarior.* J. B. 2. 836.

This common Tower-mustard has many rough hairy Leaves full of Juice, of a deep

green Colour, about two Inches long, and above one Inch broad, pointed at the Ends, and broadest in the Middle, little or nothing dentated about the Edges, lying round about the Head of the Root upon the Ground; from among which rise several rough and hairy Stalks, near two Foot high, orderly begirt with such-like Leaves one above another on all Sides, but compassing them at the Bottom, which are narrower and longer-pointed than those below. At the Tops of the Stalks, which are seldom branched, grow many small white Flowers, as it were in a Tuft together, opening gradually, the lowest first, producing long slender Pods presently after, which standing upright around the Stalks, before the uppermost Flowers are blown, the whole Stalks look like so many Pyramids, Steeples or Towers, from whence it took its Name. These Pods contain small, brown and sharp-biting Seeds. The Root is composed of many white Fibres or Strings, seldom remaining after it has produced ripe Seed; but sends up several new Plants before Winter, which continue till such time as they flower and seed the next Summer.

Mr. *Ray* tells us, he has seen it in four different Places in *England*, 1. In the Country about *Norwich*, in the Road betwixt the City of *Norwich* and *Tarmouth*, growing in Hedges. 2. About *Slough*, in the Road to *London*, upon the Banks of Earth that are cast up there. 3. On *Dorset-hill*, not far from *Tamworth* in *Warwick-shire*. And 4. lately near *Colchester* in *Essex*, as you go up *Lenden-hill*, on both Sides of the Road.

It flowers in *June*; and when the Seed is ripe, it withers, Root and Branch.

2. *Turritis minor.* *Bot. Monsp.* Small Tower-mustard.

3. *Turritis vulgaris, ramosa.* Common branched Tower-mustard. *Bursa pastoris similis, siliquosa, major, seu majoribus foliis.* C. B. Pin. 108. *Pileosella siliquata.* D. Thal. Tab. vii. *Bursa pastoria sive Pileosella siliquosa.* J. B. 2. 870. This is the *Paronychia major* & altera minor of *Parkinson*; which he calls Codded Mouse-ear.

This Plant has a small and fibrous Root. The Leaves are spread along upon the Ground, being furnished with Footstalks somewhat hairy, and sometimes sinuated round.

round the Edges, about the Bigness of common Chickweed Leaves, but longer, and resembling the Leaves of *Shepherd's-purse*, but not jagged. The Stalk is sometimes so short that it does not exceed an Inch in Height, but at other Times it rises nine Inches high and better, is somewhat hairy and red towards the Root, but above is smooth and green, or rather grey. When it is branched, there is set a Leaf without a Foot-stalk at the Rise of the Branches, otherwise it is naked. The Flowers are small, white, consisting of four roundish Leaves that are not split in two, and are ranged in no Manner of Order upon small oblong Foot-stalks.

It grows in dry and sandy Places, and flowers in the Spring.

4. *Turritis Leucon folio*. *Tower-mustard* with a *Brook-gilly-flower* Leaf. *Myagrum siliqua longa*. C. B. Pin. 109. *Myagro affinis Planta, siliquis longis*. J. B. 2. 894. *Myagrum adum Lobelii*. Tabern. Icon. 868. This is the *Camelina* of Gerards, and the *Camelina* sive *Myagrum alterum amarum* of Parkinson. *Treacle Wormseed*.

This Plant has a ligneous, white, single Root, with some Fibres hanging at it. The Stalk is a Cubit or two Cubits high, single, firm, channelled, a little hairy, and somewhat reddish, full of bitterish Pith, and divided into several Branches or Shoots. The Leaves are like those of *Camelina*, placed alternately, an Inch broad, and three or four Inches long, gradually dilating from a narrow Bottom, and then gradually ending in a Point, rough to the Touch, green, and of a bitter Taste. The Flowers are small, many, crowded and yellow, with yellow Chives, and stand upon short Foot-stalks. When they decay they are succeeded by small Pods placed alternately, above an Inch long, square, upright, standing upon Foot-stalks sticking out from the Stalk, and containing abundance of yellowish, small, oblong, bitter Seed.

Mr. Ray found this Plant, in great Abundance, in the *Iffe of Ely*, among the *Willow* Bushes near the Town.

Parkinson puts this Plant twice; first for *Myagrum sativum*; secondly, for *Myagrum alterum amarum*.

5. *Turritis Alpina, foliis incisiss*. *Tower-mustard* of the Alps, with cut Leaves.

Nasturtium Alpinum, insipidum. C. B. Pin. 105. *Cardamine insipida*. F. Gregorii Col. Part. 2. 69.

This Plant has a very small short Root, and no Fibres at all. The Leaves are an Inch long, cut like the Leaves of *Gumm-succory*, or *Prickly-mustard*, but rough and hairy, as is the Stalk, which is small, nine Inches high, divided at Top into several Branches, producing very small Pods raised upon long Foot-stalks, and growing alternately, about the Length of one's Finger, and big in Proportion to the Plant, containing a small Seed, as it were a Point made upon the Pod. There are many small white Flowers at Top resembling *Navel* Flowers.

F. Gregory found this Herb upon a Bridge betwixt *Rosennabim* and *Abling*, in a Kind of sandy Plain; and knew it by its insipid Taste and Smell.

6. *Turritis foliis inferioribus Cichoraceis cæteris Persifoliatæ*. *Tower-mustard*, with its under Leaves like those of *Cichory*, and the rest like the Leaves of *Thorough-wax*. *Brassica sylvestris, foliis circa radicem Cichoraceis*. C. B. Pin. 112. *Sinapi album*. Lugd. 1168. This is the *Brassica Glasifolia* *Cichoroides* of J. Bauhinus.

This Species has an annual Root, that is pretty thick and white, somewhat purplish, fibrous, and a little acrid. The Leaves that first appear before the Stalk rises, are partly jagged like the common *Cichory*, or *Endive*, and partly entire, grey, resembling the Leaves of *Wood*, oftentimes above a Palm long, and half an Inch broad, downy, of an acrid and bitter Taste: But when they are come to Perfection (and such as grow on the Stalks) they have no Jaggs, are smooth, grey on both Sides, oblong, and unite so with the Feathers of their Wings, that they look as if they were bored by the Stalk, and taste like common *Colewort*. The Stalk is slender, half a Yard or a Yard high, of an herby Colour, with a certain Mixture of Purple, and branched out into many long small Arms. Out of the Wings and the top Branches come forth many Flowers joined together, upon Foot-stalks half an Inch long, of a faint Colour betwixt yellow and white, and of no manifest Smell, consisting of four Leaves each, with as many surrounding them without, but much smaller and greenish, and pointed

pointed also; whereas they are roundish. In the Middle stand many saffron *Stamina* together with a green Pointal. At last succeed long, upright, slender Pods, in which the Seed is contained.

It is to be found about *Basil*, on the Sand Banks on the *Rhine*, and elsewhere.

7. *Bauhinus* asks, whether this is not the *Turritia major* *sive altera Clusii*? and indeed it seems to be the same Plant.

7 *Turritis annua*, verna, flore purpurascente. Annual vernal Tower-mustard, with a purplish Flower. *Leucoium maritimum latifolium*. C. B. Pin. 201. *Leucoium maritimum latifolium*, flore caeruleo purpurante. J. B. 2. 880. *Leucoium marinum*, caeruleo-purpureum. Tabern. Icon. 311.

This Species has broad, stiff, and hairy Leaves that are deeply jagged, which are bored on the upper Side by the Stalks. The Flowers are of a purple blue Colour on Foot-stalks a Palm and a half long. The Pods are much shorter and smaller than those of the common *Wall-flower*, and taper; containing oblong, taper Seeds.

It delights to grow on the Sea Shore; and it flowers early in the Spring, on the Declivity of *Capou-ladon*, in a Place called, *las Cambrettes*. Botan. Monsp.

8. *Turritis annua*, verna, flore albo. Annual vernal Tower-mustard, with a white Flower.

9. *Turritis Cretica*, *Bellidis foliis villosis*. Candy Tower-mustard, with hairy Daisy Leaves.

10. *Turritis orientalis*, foliis *Cichoraceis* dentatis, flore luteo magno. Oriental Tower-mustard, with dented Succory Leaves, and a large yellow Flower.

This Genus was not known to any of the ancient *Botanists* either *Greek* or *Latin*, nor to any of the Moderns neither, before *Lobel* in his *Dutch Herbal*, *Clusius*, *Tabernemontanus*, and *Gerarde*: Nor has any Author, that I know of, pretended to give any Account of their Vertues; so that we must rest satisfied with the bare Description, till such time as some curious Person shall think it worth his while to make Experiments about them: Only Mr. *Lemery* tells us, That they are cutting, opening, carminative, and sudorifick. And *Parkinson* gives his Opinion, from the extreme Acrimony and Bitterness of these

Herbs, and especially of their Seed, that they are near akin to the *Mustards*, *Cresses*, *Thlaspi's*, and the like; and doubts not but they will work the same Effects with them.

TABLE CX. Fig. 1.

GENUS V.

Cardamine, Ladies-smock, or Cuckow-flower.

Cuckow-flower is a Plant with a Flower in Form of a Cross A, consisting of four Leaves B: Out of whose Flower-cup C, rises the Pointal D, which afterwards turns to a Fruit or Husk EF, divided into two Cells, by an intermediate Partition GK, to which the Valves HI, adhere on both Sides, and generally full of orbicular Seeds L: To these Marks must be added, That the Valves HI, when they are ripe, turn up like a Screw or Spire, and force out the Seed with Violence.

The Species of this Plant are,

1. *Cardamine pratensis*, magno flore purpurascente. Meadow Cuckow-flower, or Ladies-smock, with a purple Flower. *Nasturtium pratense*, magno flore. C. B. Pin. 104. *Iberis Fuchsii*, *sive Nasturtium pratense*, *silvestre*. J. B. 2. 889. *Flos cuculi*. Dod. Pempt. 592.

From a pretty thick, white, lively Root, furnished with many small Fibres, it sends up generally but one Stalk nine Inches high, upright, taper, smooth, firm, and as it were twisted, reddish towards the Root; and is divided into Branches, on the Tops of which are many Flowers together, of a white purplish Colour, large and slightly, consisting of four blunt veiny Leaves, in the Middle whereof stand six yellow *Stamina* with a Pointal, and resting upon Foot-stalks an Inch long: To which succeed dark purple Pods, almost a Finger and a half long, or at least above a Finger long, straight, stiff, a little flat, divided into two Cells by an intermediate or intervening Membrane lengthwise, and containing a double Row of small longish Seeds, of a greenish yellow Colour. These Pods

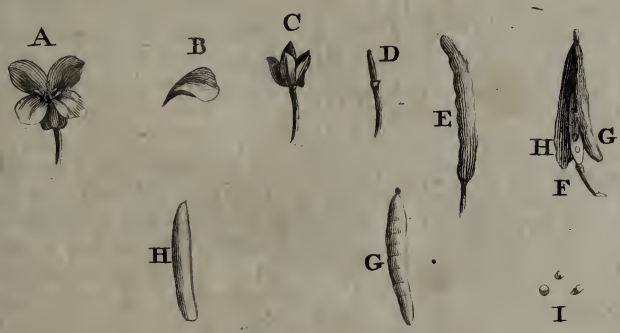
Cardamine *Ladies-Smock or Cuckoo-flower.*

Fig. 1.



Sifymbrium.

Fig. 2.



Peds, when they are ripe, fly asunder at the least Touch, by the Valves twirling themselves into a Screw, and the Seed springs out with Violence, after the Manner of the *Persicaria siliquesa*, or the *Cardamine impatiens*.

The Leaves are of two Sorts; for the lower ones are spread upon the Ground, on long slender Foot-stalks, and divided into four, five, or six small round Leaves, adhering at Distances to the Rib, [They generally answer to one another in Pairs, and are composed of the Conjunction of four or five Segments, with an odd one at the Point.] on the upper Side hairy with a short Down, and smooth on the under Side: But the upper Leaves, which are set upon the Stalks, stand in Fours and Fives at Distances, adhering singly to the Stalk without Foot-stalks, smooth, divided into small Portions or Feathers to the Number of six or seven, in Pairs, and adhering to the middle Rib, with an odd one at the End. The whole Plant has the Taste of *Water-cress*.

It grows by Rivulets and in Meadows, and flowers in the Months of April and May.

Baubinus has another Species, which he calls *Nasturtium pratense pa vo flore*; and *Parkinson*, *Cardamine laciniatis foliis*.

2. *Cardamine pratensis*, magno flore albo. *Meadow Ladies-smock*, with a large white Flower. *Nasturtium pratense*, magno flore, profus albo. C. B. Pin. 194.

3. *Cardamine pratensis*, magno flore pleno. *Meadow Ladies-smock*, with a large double Flower. *Nasturtium pratense*, flore pleno. C. B. Pin. 104. *Iberis Fuchii* sive *Nasturtium pratense*, flore pleno. J. B. 2. 887. *Cardamine altera*, pleno flore. Clus. Hist. cxxix.

This Plant has small jagged Leaves like those of the small *Water-valerian*, growing upon a Stalk a Foot high. The Flowers which first shew themselves are white, and as it were dashed with a light Carnation; but when they begin to fall, in their Middle rise up Heads of fine double Flowers composed of many Leaves, in Colour like those of the single Sort.

4. *Cardamine pratensis*, parvo flore. *Meadow Ladies-smock*, with a small Flower. *Nasturtium pratense*, parvo flore. C. B. Pin. 104. Prodr. 44.

The Leaves of this are more jagged than any of the other Species, coming somewhat near the Form of the lower Leaves of *Garden Cress*; and the Flowers are white and small like those of the mentioned Plant.

5. *Cardamine pratensis*, exiguo flore. *Meadow Ladies-smock*, with a very small Flower. *Sisymbrii Cardamine*, species quaedam insipida. J. B. 2. 886. *Sium minimum*. P. Alp. Exor. 331. This is the *Cardamine impatiens vulgo Sium minus impatiens* of *Gerarde*; and the *Sium minimum Noli me tangere dictum*, sive *impatiens Nasturtii sylvestris folio* of *Parkinson*. *Impatient Ladies-smock*.

It stands upon a white single Root, which is furnished with one or two Shoots, and a few capillary Fibres; and tastes like *Cress*, but somewhat milder. There are a few pale green soft Leaves at the Root, composed of the Conjunctions of five or six Feathers or Fins annexed to a middle Rib. Now each of those Fins is cut almost in the same Manner as those of bitter *Cress*. The Stalk is single, a Cubit high, branched, and purplish below; pretty firm and upright, channelled and smooth, clothed with a great Number of Leaves set at Distances, and placed alternately, divided in the same Manner as the lower ones, but with longer and sharper Segments, with a mild and scarce perceivable Taste of *Cress*. On the Tops of the Stalks and Branches stand the Flowers, in the same Manner as in the other Species of this Genus, which are white, very small, and consist of four Leaves; to which succeed small straight Seed vessels, as long as one's Finger, which, if they are touched at the End when ripe, fly asunder with Violence, and throw out small dark Seed.

When this Plant thrives and flourishes, it bears broader Leaves, which very much resemble those of bitter *Cress*; in others they much resemble the Leaves of small *Water Rocket*.

It grows among the Stones and under the Rocks near a Village called *Wberf*, about three Miles distant from *Settle*, towards *Ingleborough Hill*, in the Northern Part of *Yorkshire*.

6. *Cardamine Sicula*, foliis *Fumariae*. *Sicilian Ladies-smock*, with *Fumitory Leaves*.

Leaves. *Sio minimo Prosperi Alpini affinis, filiquis latis.* Bocc. rarior. Plant. 84.

This Plant has small jointed and branched Stalks. The Leaves are small, and divided at the Edges like the Leaves of *Fumitory*. There are but a few Flowers upon the Tops of the Branches, which are succeeded by broad smooth Pods, that end in a Point, out of which fly four or five flat and almost quadrangular Seeds upon the slightest Touch. The Root is composed of small Fibres.

It grows on *Madonia*, a Mountain in *Sicily*; called by the Antients *Nebrode*.

7. *Cardamine* iv. *Dalechampi*. *Lugd.* 659. The fourth Ladies-smock of *Dalechampi*. *Nasturtium aquaticum minus.* C. B. Pin. 104. *Sisymbrium Cardamine hirsutum, minus, flore albo.* J. B. 2. 888. The lesser Cuckow-flower or Ladies-smock.

This Species has a white, single, and succulose Root. It spreads Leaves quite round it like the Leaves of the Meadow *Cress*, but smaller, somewhat hairy, commonly composed of three Conjunctions annexed to the same Rib, with an odd Segment on the last Leaf; in Taste and Smell like Garden *Cress*, but milder. It sends up several Stalks a Palm or nine Inches high, furnished with one or two Leaves, branched, bearing on the Top very small white Flowers consisting of four Leaves; to which succeed Pods an Inch long or somewhat longer, narrow, resting upon longish Foot-stalks, consisting of two Valves or Cells, parted by an intervening Membrane into a double Row of Seeds, which, upon touching the End when ripe, fly asunder with Violence, and scatter the Seed all around. The Seeds are small, round, somewhat flat, and reddish.

It flowers in *April*, and sometimes even in *March*; nor does it grow up only in wet and shady Places, but even in Gardens. A great many in this Country use it in *Sallads*.

8. *Cardamine* flore majore, elatior. *Tal.* 1. *Ladies-smock*, with a large Flower. *Sisymbrium Cardamine, sive Nasturtium aquaticum, flore majore, elatius.* J. B. 2. 885. *Nasturtium aquaticum majus & amarum.* C. B. Pin. 104. *Nasturtium aquaticum, erectum, folio longiore.* Ejsd.

This Species has Stalks above half a Yard high, infirm and tender in shady Places, but

in open Places more firm, channelled towards the Top, crowded with Leaves growing at Distances alternately, in Smell and Taste like the common *Cress*, somewhat bitterish, composed commonly of three Conjunctions of Fins, with an odd one on the last Leaf. These Fins or Segments are single, oblong and sinuated, but the lowermost ones at their first coming out are rounder. Near the Top of the Stalk come forth some Branches out of the Bosoms of the Leaves, on the Tops of which stand a great many Flowers together, as in the common *Cardamine*, and almost of the same Bigness, consisting of four Leaves, which are roundish, and not split in two, white, with six *Stamina* in the Middle tipped with purple Chives, and resting upon small Foot-stalks an Inch long: To which succeed small Pods an Inch and a half long, which touched on the End when ripe, fly asunder, and scatter abroad small reddish Seeds.

It comes up in marshy and watery Places; and flowers in the Spring.

9. *Cardamine Alpina, minor, Resedæ folio.* Small Ladies-smock of the Alps, with a base wild Rocket Leaf. *Nasturtium Alpinum, minus, Resedæ foliis.* C. B. Pin. 104. Prodr. 45.

From a white, small, and oblong Root rise up smooth, slender and crooked Stalks, which are commonly undivided, and scarce a Palm high, furnished with Leaves upon Foot-stalks, resembling the Leaves of common base wild Rocket, and divided into three or four roundish Lobes or Lappets. On the Tops of the Stalks stand white Flowers, of a middle Size; to which succeed very narrow Pods an Inch and a half long. It is found on the Alps of the *Grisons* flowering in the Month of *July*, and on the *Swiss Alps*, and the *Pyrenean Mountains*, but not so plentifully.

10. *Cardamine montana, Asari folio.* Mountain Ladies-smock, with an *Asarabacca* Leaf. *Nasturtium montanum, Asari folio.* Bocc. Rarior. Plant. 5.

This Species has round Leaves like those of *Asarabacca*, and somewhat sinuated round the Edges: The Flower is white: The Pods are long and without Number, which, when ripe, fly open at the slightest Touch. The Root

Root is thick, hollow, knobby, running or creeping, and fastning it self to the Earth by small Fibres coming forth from the Knobs. It is perennial; and some have alledged that it should be called *Cochlearia Italica*.

It grows in great Plenty about the Sides of the Springs and Brinks of the Rivulets that rise from *Barga*, a Hill in *Tuscany*.

11. *Cardamine hirsuta*, *Chelidonii folio*, flore purpurascente. Hairy Ladies-smock, with a Celandine Leaf, and a purplish Flower. *Sinapi agreste, flore purpureo*. J. B. 2. 866. *Sinapi alterum, agreste, nostras*. Col. Phytol. 25.

12. *Cardamine glabra*, *Chelidonii folio*. Smooth Ladies-smock, with a Celandine Leaf. *Nasturtium Alpinum, Halicacabi peregrini foliis*. Ambros. 374.

13. *Cardamine Alpina*, *Ima trifolia*. *Clus. Hist.* 127. The first three-leav'd Ladies-smock of the Alps of *Clusius*. *Nasturtium Alpinum, trifolium*. C. B. Pin. 104. *Iberidi Fuchsii affinis, trifolia Cardamine*. J. B. 2. 890.

It creeps upon the Ground with small blackish purple Branches, on which are set always three Leaves on an oblong Foot-stalk of the same Colour, narrow near the Foot-stalk, but broader and as it were orbicular towards the End, somewhat jagged round the Edges, at first very tender and green, but afterwards hard, blackish, of an acid Taste at first, but afterwards acid. Little taper Stalks break forth among the Leaves, being of a purple blackish Colour, a Palm high, having none or but very few Leaves upon them, and those also in Threes. The Flowers, which are white, stand upon the Tops of the Branches, and are very like the Flowers of the Meadow Ladies-smock. To these succeed knotty and oblong Pods, resembling the Pods of Coralwort, and full of a like, but smaller Seed. The Root runs along upon the Surface of the Earth, and shoots down small white Fibres, so that there may be easily planted from it Branches that are covered over with Earth.

Clusius found it upon woody Mountains, and a naked rather than an herby Soil, at the Roots of *Firs*, and other very tall Trees, and green the whole Winter. It flowers in *June*, and when cultivated, even in *April*.

14. *Cardamine Africana*, *trifolia*. African three-leav'd Ladies-smock, *Nasturtium*

foliis ternis, facie Christophoriana. Par. Bat.

At first Sight you would take it for *Christophoriana*, if you lookt only at the Flower and the Leaves; but after it has brought forth its Pods, you would rank it amongst the *Nasturtia* or *Cresses*; and so much the rather that it has an acrid and somewhat acid Taste somewhat like that of *Cress*, and the Pods fly open as soon as touched. It has a white fibrous Root, from whose Head rise several small branched Stalks above nine Inches high, smooth, of a blackish green Colour, even and round below, but corner'd above; by various bending sometimes enclining towards the Earth, and then raising themselves up again. Upon these are set, at pretty long Distances, on Foot-stalks an Inch and a half long, Leaves divided into three Segments, somewhat like the Segments of *Christophoriana*, dented round the Edges, and ending in a Point. It has small Flowers consisting of five Leaves, nodding, ranged as it were into a short Spike, greenish never expanded, but composed of five Leaves that meet, and rising out of a small Flower-cup cut into four Segments. To these succeed the Pods consisting of two Cells, half a Finger Length, ending in a Point, the Valves, when ripe, flying asunder with a Noise at the least Touch, and twisting themselves as it were into a Screw, after the Manner of their Fellows. Last of all follow the flat, oblong, yellowish Seeds.

15. *Cardamine Græca*, *Chelidonii folio*, rarius & profundius inciso, flore albo. Greek Ladies-smock, with a Celandine Leaf, that has but few and deep Jaggs, and a white Flower. *Nasturtium montanum, nanum, rotundo Thaliætri folio*, *Cyrnaum*. Bocc. Mus. 171. *Nasturtium rotundo Thaliætri folio*. Ejsuld. Tab. 116.

This Genus is called *Cardamine*, because in Taste it comes pretty near *Cardamum*, that is, *Cress*.

These Herbs are seldom used either in Sauce, Sallads, or Physick; tho' some have reported that they are as effectual for the Scurvy as *Water-cress*, and that they may serve instead of it, when *Water-cresses* are wanting, or are not to be got.

Mr. *Lemery* informs us, that they contain Abundance of Phlegm, Oil, and essential Salt; and that therefore they are Opening, proper for the Stone and for the Scurvy.

TABLE CX. Fig. 2.

GENUS. VI.

Sisymbrium.

Sisymbrium is a Plant with a Cross Flower A, consisting of four Leaves B: Out of whose Flower-cup C, rises the Pointal D, which afterwards turns to a Fruit or Pod E, which is divided into two Cells by an intermediate Partition F, to which the Valves H G, adhere on both Sides; and furnished with Seeds I, which are commonly roundish. To these Marks must be added a Make and Appearance that is peculiar to the Species of this Genus.

The Species of this Genus are,

1. *Sisymbrium aquaticum*. *Math.* 487. *Nasturtium aquaticum*, *supinum*. C. B. Pin. 104. *Sisymbrium Cardamine*, five *Nasturtium aquaticum*. *J. B.* 4. 884. This is the *Nasturtium aquaticum vulgare* of *Parkinson*. *Water-Cresses*.

White capillary Fibres, which shoot down into the Water from the Joints, supply the Place of a Root. The Stalks are oblong, almost lying down flat, pretty thick, hollow, striped, smooth, branched, and green with a small Mixture of red. The Leaves are green and black-green, resembling *Rocket* Leaves, composed of two or three Conjunctions of Fins, with an odd one at the End, smooth, and tasting like *Garden Cresses*, but milder. The Flowers on the Tops of the Stalks and Branches are small, white, four-leav'd, with yellow Chives in the Middle, which, because they blow gradually, run out as it were into long Spikes. To these succeed Pods an Inch long upon Foot-stalks half an Inch long, standing out from the Stalk, somewhat crooked above, pretty plump, and filled with two Rows of small yellow Seeds.

It grows in shallow Water about Fish-ponds and Brooks, and flowers with us in England in the Months of *July* and *August*, and sometimes sooner.

2. *Sisymbrium Pyrenaicum*, *latifolium*, *purpureo* flore. Broad-leav'd *Pyrenaicum* *Sisymbrium*, with a purplish Flower.

Nasturtium Pyrenaicum, *aquaticum*. *Par.* Bar.

From a whitish Perennial Root capillared with many Fibres, rise Leaves spread upon the Ground, raised, with stiff Wings, larger than the other Species, roundish, eaten or gnawed as it were about the Edges, adhering by Couples to an intermediate keeled Rib, and opposite to one another, with one very large odd one at the End. It sends up Stalks above a Span long, which are round, somewhat hairy, and striped towards the Top; at the Tops of which come forth in a Sort of a spiked Series Flowers of a pale purplish Colour, consisting of four Leaves, large, with yellowish *Stamina* within, a pale green Flower-cup cut into four Segments, and supported by small greenish Foot-stalks, which growing longer, stiffer and stronger after the Decay of the Flower, long Pods stand upon them, gaping into two Valves with an intermediate Membrane, and shedding Seed like the other Species.

It flowered in the Physick Garden at *Leysden* in the Month of *May*, and bore ripe Seed in *June*.

3. *Sisymbrium Erucae folio* glabro, flore luteo. *Sisymbrium* with a smooth *Rocket* Leaf, and a yellow Flower. *Eruca lutea, latifolia*, five *Barbarea*. C. B. Pin. 98. *Barbarea*. J. B. 2. 868. *Dod.* *Pempt.* 712. *Winter Cress*.

This Plant has a white, thick, oblong and perennial Root, of an acrid Taste. The Stalks are a Cubit high, channelled, firm, full of Pith, hollow with many Wings; on which are set Leaves like those of *Radish*, but smaller, the outmost Jagg resembling the outermost Leaf of *Cress*, thinning with a black Greenness, and of a more languid Taste than the Root. From the Wings of the Leaves towards the Tops of the Stalks come forth very many small Branches, on which, as also upon the Top of the Stalk, stand small, yellow, four-leav'd Flowers, running out as it were into long Spikes; to which succeed small taper Pods about an Inch long, lying close to the Stalks, and containing small reddish Seed. The whole Plant is smooth. The Flowers stand upon short Foot-stalks.

4. *Sisymbrium Erucae folio* glabro, flore pleno, *Sisymbrium* with a smooth *Rocket* Leaf,

Leaf, and a double Flower. *Eruca lutea*, *five Barbarea*, *flore pleno*. C. B. Pin. 99.

The Leaves of this Species are smaller and more sinuated; the Stalks are alike; the Pods thicker, and the Seeds bigger, not quite so dusky, but as it were whitish: This Plant is likewise perennial, and may be easily distinguished from the preceeding one by these Marks. You may see it's Flower in Gardens to be double.

5. *Sisymbrium Erucae folio glabro, minus & præcocius*. The smaller and earlier *Sisymbrium*, with a smooth Rocket Leaf.

6. *Sisymbrium Erucae folio aspero, flore luteo*. *Sisymbrium* with a rough Rocket Leaf, and a yellow Flower. *Leucoium luteum Erucae folio*. C. B. Pin. 201. *Leucoium terrestre majus*. Col. Part. 262.

This Species has Flowers not unlike the Flowers of maritime *Leucoium*, which are sweet-smelled, and breathe the pleasant Smell of new Wax, biting to the Taste, and grow as it were in Umbells on the Tops of the Branches and Stalk. The Stalk is a little rough, round, a Cubit high, divided into three Wings, which, when the Flowers fall off their Foot-stalks, sends forth many Pods that are ranged alternately on the Top, and resemble the Pods of *Leucoium*. But the Leaves from the Root, which is above a Foot long, split in two or three Parts, and white, lie scattered upon the Ground, and are above a Foot long, as well as those which are next to the Stalk; but the first Leaves are smaller, resembling the Leaves of Garden Rocket or wild Poppy, in their deep Jaggs, being of a greenish Colour, a little hairy, soft, juicy, and of an acrid Taste, as is the whole Plant.

7. *Sisymbrium aquaticum, Raphani folio, siliqua brevior*. Water *Sisymbrium*, with a Radish Leaf, and a short Pod. *Raphanus aquaticus*, alter. C. B. Pin. Edit. 1. 97. Prodr. 38. *Raphanus aquaticus Rapistri folio*. C. B. Pin. Edit. 1. 97. *Rapistrum aquaticum*. Tabern. Icon. 408.

8. *Sisymbrium aquaticum, Raphani folio variegato, siliqua breviori*. Water *Sisymbrium*, with a variegated Radish Leaf, and a short Pod. *Raphanus aquaticus alter, foliis variegatis*. H. R. Par.

9. *Sisymbrium aquaticum, foliis in profundas lacinias divisis, siliqua breviori*. Water *Sisymbrium*, with Leaves cut into

deep Jaggs, and a short Pod. *Raphanus aquaticus, foliis in profundas lacinias divisis*. C. B. Pin. 97. Prodr. 38.

This Plant has Stalks above a Yard high, which are channelled, hollow, and reddish. The Leaves are sometimes deeply jagged, at other Times whole and only dented round the Edges, oblong, pointed and placed alternately on the Stalk. On the Tops of the Stalk and Branches stand Flowers that are small in proportion to the Plant, four-leav'd, out of a four-leav'd Cup, are yellow, and stand upon small and longish Foot-stalks; to which succeed small short Pods, sticking out from the Stalk, and making almost right Angles with it.

It flowers in the End of June and Beginning of July, in watery Ditches and Rivulets.

9. *Sisymbrium palustre, repens, Nasturtii folio*. Creeping Marsh *Sisymbrium*, with a Cress Leaf. *Eruca palustris & Nasturtii folio, siliqua oblonga*. C. B. Pin. 98. *Eruca palustris minor*. Tabern. Icon. 447. *Eruca quibusdam terrestriis, repens, st. sculo luteo*. J. B. 2. 866.

This Species has Stalks one or two Spans high, channelled, pretty full of Holes and reddish; on which are set Leaves like those of Cress or Rocket, and cut in like Manner with frequent Divisures, broad on the lower Parts, of an oleraceous Taste, and a blackish green Colour. The Flowers are small, yellowish, and four-leav'd, of an acrid Taste; to which succeed cylindrical Pods, shorter than those of Rocket, and longer than those of *Radicula sylvestris* Dod. with which they have a great Affinity, and containing small Seed. The Root, which is white, is a very great Creeper, and of a more insipid Taste than Radish.

To all this add, That the Lobes of the Leaves are dented round the Edges, as *Columna* well observes; The Flower-cups together with the Flowers themselves gape; That the Pods rest upon pretty long Foot-stalks, that stick out from the Stalk; and that the Pods themselves are crooked a little upwards.

10. *Sisymbrium palustre, minus, siliqua aspera*. The lesser Marsh *Sisymbrium*, with a rough Pod. *Sinapi parvum, siliqua aspera*. C. B. Pin. 99. Prodr. 41. *Sinapi*

Monspessulanum, siliqua aspera, hirsuta. J. B. 2. 888.

Immediately from a ligneous Root rise up a great Number of Leaves, pretty much resembling the Leaves of the smaller *Rocket*, and acrid; and among these several Stalks a Palm or even half a Yard high, divided into several Branches, with Flowers on them, which are small and yellow, and like the Flowers of *Mustard*. To these succeed thick-set Pods an Inch long, round, rough, some of them ascending up along the Stalks and Branches, and others standing out a great way from them, and as it were stretched straight out, containing a very small reddish Seed.

J. Baubinus found this Species in the *Aurum* between *Montpelier* and the Hill called *Esperon*; and *Charles* found it betwixt *Montpelier* and the Baths of *Balleruque* in watery Ditches.

11. *Sisymbrium palustre, minus, siliqua glabra.* The smaller Marsh *Sisymbrium*, with a smooth Pod. *Sium tenuifolium, montanum luteum.* Col. Part. 1. 269.

12. *Sisymbrium aquaticum, Absinthii. minoris folio.* Water *Sisymbrium*, with the smaller *Wormwood* Leaf. *Nasturtium sylvestre, tenuissimè divisum.* C. B. Pin. 105. *Scripium Germanicum sive Sophia quibusdam.* J. B. 2. 886. *Sophia Chirurgorum.* Lob. Icon. 738.

13. *Sisymbrium Creticum, Raphani foliis eleganter dissectis.* Candy *Sisymbrium*, with Radish Leaves curiously cut.

14. *Sisymbrium orientale, Barbateæ facie, Plantaginis folio.* Oriental *Sisymbrium*, with the Shape of *Winter Cresses*, and a Plantain Leaf.

15. *Sisymbrium orientale, Barbateæ facie, folio rotundo.* Oriental *Sisymbrium*, with a *Winter Cress* Appearance, and a round Leaf.

16. *Sisymbrium orientale, aquaticum, majus, & majore flore, nequaquam amarum.* The great Water oriental *Sisymbrium*, with a large Flower, and not at all bitter.

17. *Sisymbrium orientale aquaticum, majus acre & amarum, foliis subrotundis.* The greater oriental Water, acrid and bitter *Sisymbrium*, with roundish Leaves.

This Genus is called *Sisymbrium* from *οἶος* & *ὑμπος*, because this Plant loves to grow in watery Places.

The whole Plant, says Mr. *Lemery*, contains Abundance of essential Salt, Phlegm, and Oil. It is very opening and cleansing, proper to provoke Urine, to attenuate, to force the Stone from the Kidneys and Bladder, for the Nephthritick Distemper, for the Scurvy and Dropsy, being taken inwardly.

The *Water-crests*, says *Parkinson*, are hotter in Taste than *Brook-lime*, and more powerful against the Scurvy, and to cleanse the Blood and Humours, and generally for all other Uses, for which *Brook-lime* is said to be available, as to break the Stone, provoke Urine and the Terms. The Decoction of the Herb is said to be good to wash foul and filthy Ulcers withal. The Leaves or the Juice are proper to be applied to the Face or other Parts troubled with Freckles, Pimples, Spots, or the like; and taken away or washed off in the Evening.

Water-cress is a Specifick against the Scurvy; in the Opinion of most Physicians; and is likewise thought to be good against the Stone: It provokes Urine, brings down the Courses, and relieves such as are troubled with a Dropsy. *Ray.*

It is best to make use of the Juice as it is fresh pressed or squeezed out, and not thickened; nor is it necessary, in order to get a right Spirit, to make use of any Ferment, since a Water may be drawn from a great Quantity of fresh *Cress*, adding Spirit of Wine to it, which turns to a Spirit by Rectification in the *Balneum Mariæ*.

Of the first Species Mr. *Turnesort* gives the following Account. This Plant is acrid, and does not redden blue Paper almost at all. It contains a Salt pretty much like the *Oxysal diaphoreticum Angeli Sale*; which is an alkaline Salt oversaturated with an acid. Beside this Salt there is in *Water-cress* a *Salt ammoniack*, a little Sulphur, and a great deal of Earth: for by a Chymical Analysis you may draw from this Plant Abundance of Acid, and Abundance of Alkali, a little urinous Spirit, a little Sulphur, and a good deal of Earth. This Plant opens, provokes Urine, and cures the Scurvy. If you boil an Handful of it in lean Broth, or in the Broth of Crabs,



Dentaria. Toothwort.



Crabs; this Broth will purify the Blood, and relieve the Dropfical, the Scorbutick, and the Hypochondriack. The Juice, the Extract, and the urinous Spirit of this Plant have the same Vertues. Some affirm, that the Juice removes the Polypus in the Nose, and makes it drop away, provided it be often washed with it.

The same excellent Author gives us likewise the following accurate Analysis of the 12th Species: This Plant has a Taste that is somewhat astringent, but acrid, and comes pretty near the Taste of Mustard. It reddens blue Paper a little. *Sal ammoniack* prevails in this Plant, mixed with a great deal of Sulphur and Abundance of earthy Parts; and is therefore vulnerary, deterfive, and febrifugous. *Casalpinus* says, That the Seed of it kills Worms: *Tragus* agrees, that it stops a Dysentery or bloody Flux, and all other Sorts of Fluxes. A Dram of it is prescribed in Soup for a Flux: The Juice, or the Plant it self macerated and cold has the same Vertues. The Juice, the Conserve, or the Extract of the Leaves and Flowers are proper for Spitting of Blood, for the Whites, for the immoderate Flux of the Piles or the Terms. This Plant applied externally, cures Wounds, and cleanses Ulcers.

The third Species, which we had almost forgot, is likewise a good Remedy for the Scurvy and the Dropsy. It is used in Broths, in Ptilans, and in Apozems. It is also drunk like Tea.

TABLE CXI.

GENUS VII.

Dentaria, Toothwort.

Toothwort is a Plant with a Flower in Form of a Cross A, consisting of four Leaves B: Out of whose Flour-cup C, rises the Pointal D, which afterwards turns to a Fruit or Pod E F; which is divided into two Cells by an intermediate Partition G, to which the Valves H I, adhere on both Sides, and is furnished with Seeds K, that are commonly roundish. To these Marks we must only add, That the Valves H I, when ripe, twist up like a Spire or Screw and discharge

the Seeds with Violence; but that the Roots are fleshy, scaley, and cut in as it were with Teeth.

The Species of Toothwort are;

1. *Dentaria heptaphyllos*. C. B. Pin. 322. Seven-leav'd Toothwort. *Coralloides altera*, five seprisolia. J. B. 2. 899. *Viola dentaria*, altera. Dod. Pempt. 162.

From the Root spring up several Leaves; sometimes five, but generally seven, growing to a long Rib, ranged after the Manner of Ash Leaves, i. e. so that two always stand opposite to one another, an odd Leaf possesses the utmost Point of the Wing, all of them dented round the Edges, of a fainter green Colour than the *Dentaria pentaphyllos*, and hoary underneath. The Stalk, which is a Foot high and round, is adorned with two or three Wings of Leaves, not unlike those which rise from the Root; on the Top of which stand Flowers of the same Size with those of the *Dentaria pentaphyllos*, but of a fine white Colour: The Pods which follow are also alike, and contain like Seed. The Root is not so scaley as that other's Root, and has a few thick Fibres hanging at it.

It grows in great Plenty on the Mountains of Fura and Saleva.

2. *Dentaria pentaphyllos*, foliis mollioribus. C. B. Pin. 322. Five-leav'd Toothwort, with softer Leaves. *Dentaria quinquefolia*. J. B. 2. 900. *Viola dentaria*, prima. Dod. Pempt. 162. *Dentaria vii*, pentaphyllos 21. Clus. Hist. cxxii.

From a knobby Root that is parted into a great many Joints, and furnished with several small Fibres coming forth betwixt the Joints, rise several Leaves supported by long Foot-stalks, divided into five deep Jaggs that reach to the very Foot-stalks, dented round the Edges, soft and smooth to the Touch, and of a deep green Colour. The Stalk is above a Foot high, and round, furnished with some Leaves that resemble the others; bearing on its Top five or six Flowers, like those of the *Dentaria bulbifera*, but of a somewhat deeper purplish Colour, such almost as is in the Flowers of the *Bulbonach*. To these succeed longer Pods-full of Seed like that of the *Dentaria triphyllos*.

Mr. Ray observed this Plant growing in great Plenty on the Top of Fura; and *Clusius*

saw it at the Foot of the Alps that look over the Lake of Geneva.

3. *Dentaria pentaphyllos, foliis asperis.* C. B. Pin. 322. Five-leav'd Toothwort, with rough Leaves. *Coralloides prima, quinque-folia.* J. B. 2. 900. *Dentaria vira, pentaphyllos ima.* Clus. Hist. cxxii.

4. *Dentaria heptaphyllos, baccifera.* C. B. Pin. 322. Berry-bearing, seven-leav'd Toothwort. *Coralloides minor bulbifera.* J. B. 2. 902. *Dentaria quarta, baccifera.* Clus. Hist. 121.

It creeps with an oblong Root, which is indeed dented, but consisting as it were of many Knobs, small, white, and sometimes also purplish, then generating new Shoots from its Sides of an ungrateful Taste, which at first dyes the Tongue, and then acrid: From whose Sides come forth Leaves growing to an oblong Foot-stalk or Rib, (which is purplish near the Root, but above that green) being generally five in Number, and sometimes more, for the most part opposite to one another, and dented only on one Side, that Leaf only being dented on both Sides which makes the odd Number, and stands on the Top of the Wing; of a sour Taste at first, but afterwards acrid and burning.

The Stalk is a Cubit high, slender and naked, and is surrounded in the Middle with two or three, and sometimes more, Wings, consisting only of three Leaves like those already described; [J. Bauhinus says, they are composed of five Leaves annexed to the Rib, sometimes placed directly opposite to one another, and sometimes alternately, an Inch and a half or two Inches long, and above half an Inch broad] but the upper Part is covered with oblong and narrow Leaves, sometimes gently, and sometimes not at all dented, and ranged in a confused Order. On the Top of the Stalk stand four, five, or more Flowers, resembling the Flowers of *Stock-gilly-flower* or *Dames-violet*, but smaller, white, or of a purplish white Colour: To which succeed Pods or Husks like the Pods of *Mustard*, but shorter, which withering together with their Foot-stalks, do generally fall off and perish; but sometimes they grow thick, and bear ripe Seed almost of the Size of *Dames-violet* Seed, which is scattered about by the Pods flying open. But beside this Seed there arise certain Knobs at the

Wings and Rise of every Leaf that surround the Stalk, not unlike the Bulbs of the *Lilium cruentum bulbiferum*, and compacted as it were of Scales, being at first green, and afterwards dark brown, of a very disagreeable Taste, which are very easily taken off, and fall of themselves when they are ripe, and when they are buried in the Earth produce new Plants.

Cusius is of opinion, That this Plant is to be found in all the mountainous Forests of Germany, viz. in the Forests of Hesse, not far from Marburg, in those of Misnia, Austria, Stiria, Carinthia, Hungary, &c.

It uses to flower in April; and the little blackish Bulbs begin to appear in May under the Wings of the Leaves.

5. *Dentaria triphylla.* C. B. Pin. 322. Three-leav'd Toothwort. *Coralloides enneaphyllis* Clusii. J. B. 2. 902. *Dentaria v. triphylla.* Clus. Hist. cxxi. *Cerastia* Plinii. Col. Part. 2. 307

It produces a Stalk a Foot high, firm, round and smooth, which is almost surrounded on the Top by three Foot-stalks (very rarely more) each of which supports three large, pointed Leaves, which are dented round the Edges, of a deep green Colour, and of a burning Taste. The Top of the Stalk is adorned by six Flowers resembling the Flowers of seven-leav'd Toothwort, looking and hanging down, and of a paleish herby Colour. To the Flowers succeed oblong, knotted, and pointed Pods, much like the Pods of the five-leav'd and seven-leav'd Toothworts, and containing in them a like Seed, that is, Seed like that of *Dames-violet*, but thicker and greenish, which leaps out when the Pods fly open, before it be fully ripe. It produces also other Leaves from the Root, growing only in Threes on each oblong Foot-stalk, much broader than the former, but shorter. The young Root is white, but the old one is blackish, so parted into many Joints, that it seems as if it were compacted of a great many Teeth, and is not much unlike the Toothwort without Leaves.

It grows in the shady Forests of Austria, Stiria, Carinthia and Hungary, not only at the Bottoms of Mountains, but likewise about their middle Region, where the Woods of very high Trees usually end on such high Mountains.

Eruca. Rocket.

Fig. 1.

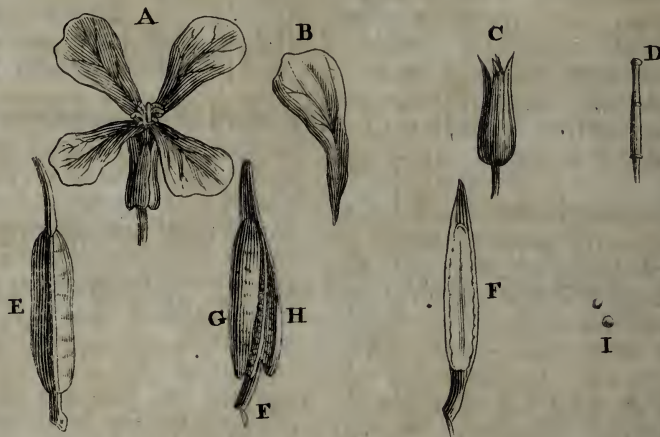
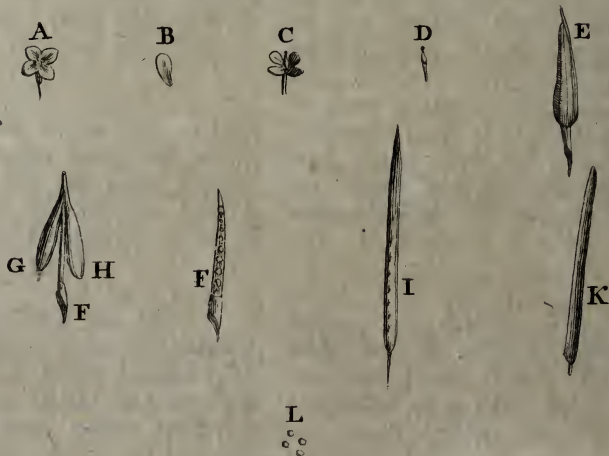


Fig. 2

Erysimum. Hedge mustard.



Mountains. *Clusius* found it also beyond the *Drave*, on a Hill above *Greiben*, and likewise in the *Hercynian* Forrest that surrounds *Bohemia*. It flowers in *April* in the Woods near *Vienna*, and other low Forrests, and is loaded with Seed in *May*: But it both flowers and seeds later on the Mountains.

6. *Dentaria enneaphyllos*, *Montis aurei*. *H. R. Par.* Pine-leav'd Toothwort of *Mont d'or*.

7. *Dentaria orientalis*, *bacciferæ similis*, *foliis quinis costæ innascentibus*. *Oriental* Toothwort, resembling Berry-bearing Toothwort, with five Leaves growing upon a Rib.

This Genus is called *Dentaria* both from the Form and Colour of the Root, which is very white, and is compos'd as it were of a great many Teeth. *Columna* takes it to be the *Ceratia Plinii*, and shews plainly, that this *Dentaria* has all the Properties that *Pliny* ascribes to his *Ceratia*: For whereas *Pliny* says, his has but one Leaf, so, says *Columna*, his has but one Leaf sometimes; for he makes that to be but one Leaf that stands upon one Foot-stalk, howsoever divided into three, five, seven or more Parts, as it is to be seen in the Ash Tree, Quicken Tree, Service and Walnut Tree, &c. the whole Leaf springing forth together, and likewise falling away all together, and not one Part after another, as in others that are single, which is a true Mark how to know a winged from a single Leaf.

Parkinson tells us that the Root of this Plant is drying, binding and strengthening; and yet that it helps to provoke Urine, and to expel Gravel and the Stone, as some do affirm. A Dram of the Powder of the Root taken for many Days successively in Red Wine is exceeding good to ease the griping Pains of the Sides and Bowels, and for inward Wounds in the Breast, Lungs or Bowels: The same is given also to such as are bursten, or that have a Rupture. It is very beneficial to be drunk in the distilled Water of the Herb called *Horsetail*: It also stops Fluxes that do not proceed from hot and cholerick Humours. The Decoction of the Herb is very good to consolidate green Wounds, and to dry up the Moisture of old stinky Sores, and thereby to heal them,

Mr. Lemery says, that all the Species of *Toothwort* contain a great deal of Oil, essential and fixed Salt; and that the fifth Species, which is the true *Cerastia* of *Pliny*, contains more Salt than any of the rest. They are cleansing, drying, carminative and vulnerary. The two first Species are used inwardly for Ulcers in the Lungs, and for the Wind-Cholick; and the fourth and fifth Species ought only to be used externally.

TABLE CXII. Fig. 1.

GENUS VIII.

Eruca, Rocket.

Rocket is a Plant with a Flower in Form of a Cross A, consisting of four Leaves B: Out of whose Flower-cup C, rises the Pointal D, which afterwards turns to a Fruit or Pod E, which is divided into two Cells by an intermediate Partition F, to which the Valves G H, adhere on both Sides, and full of Seeds, which are generally roundish I. To these Marks must be added, a Smell peculiar to *Rocket*.

The Species of *Rocket* are,

1. *Eruca latifolia*, alba, sativa, *Dioscoridis*. *C. B. Pin.* 98. White, broad-leav'd, Garden Rocket of *Dioscorides*. *Eruca major*, sativa, annua, flore albo, striato. *J. B.* 2. 859. *Eruca sativa*. *Dod. Pempt.* 708.

This Species has a white, small, and ligneous Root, of an acrid Taste: The Stalks are somewhat hairy, a Cubit and a Cubit and a half high: The Leaves resemble the Leaves of *Mustard*, but smaller, tender, smooth, and of the same Taste with the Root. The Flowers are of a blueish, or rather yellowish white Colour, striped with blackish Stripes, and standing in hairy Flower-cups. The Pods stand upon short Foot-stalks, and are smooth, such as those in the *Sinapi filiqua glabra*, but longer, opening at the Sides; parted by a Membrane, to which adhere many yellow Seeds, larger than the Seeds of the *Mustard* just mentioned, and not quite so round. The Smell of this Plant is strong and disagreeable, not to say stinking,

nor is the Taste less so, tho' the *Italians* love it, and always mix *Rocket* in their *Sallads*, to give them a grateful Taste: But perhaps they like it at first more for its *Vertues* than for its Taste, and afterwards find it agreeable to their Taste by frequent Use.

2. *Eruca sativa, foliis magis dissectis. H. Edinb.* Garden Rocket with Leaves more cut.

3. *Eruca Romana seu Gentilis, si quæ angusta, folio lato. F. B. 2. 860.* Roman Rocket with a narrow Pod, and a broad Leaf.

It is so very like Garden Rocket in Leaves, Flower and Stalk, that it might easily deceive any one at first Sight when it is in flower: It differs in the Hardness of the Leaves, and in the Roughness of the Nerves on the under Side, as well as of the Stalk. It has a white, thick, long Root, much like wild Radish, and of an acrid Taste. It produces Leaves that lie upon the Ground, and are hard, greenish, a little hairy, rugged with Nerves, of the Size and Diviture of Garden Rocket, and of an oleraceous Taste. It sends up several Stalks, almost a Foot high, divided into Wings; but the top Leaves of the Wings about the Flowers are oblong like those of Radish, and not cut on both Sides like those of Rocket; and in this it likewise differs from that Plant. The Flowers stand on the Top, and are white, striped with black Lines like Garden Rocket, and are alike in their Size and Arrangement; but it differs from it again in its Pods, which are not short and bulging as in Rocket, but long and slender.

It flowers in March and April, and bears Seed in May; and grows on the Sides and Banks of the High-ways in *Cirinals*.

The Taste of the Leaves is rather herby than acrid, and therefore the Natives eat it, and call it *Nipplewort*.

4. *Eruca Bellidis folio. Moris. Hist. Oxon. Part. 2. 231.* Daisy-leav'd Rocket.

It sends up Stalks a Foot high, and sometimes higher; on the Tops of which come forth small yellow Flowers consisting of four Leaves, about the Size of the Flowers of wild stinking Rocket; to which succeed Pods ranged as it were Spike-fashion, and thicker than the Pods of wild stinking Rocket.

Then the Stalks of this Plant are not so upright as the others, but bending. By these Marks it is distinguished from wild stinking Rocket, but chiefly by its Leaves, which do so very much resemble the Leaves of the greater Daisy, that if any one was to see them spread upon the Ground about the Head of the Root, before the Plant produces Stalks and Flowers, he would confidently affirm that it was a Species of the greater Daisy, unless he brought his Taste in to his Assistance.

5. *Eruca tenuifolia, perennis, flore luteo. F. B. 2. 861.* Thin-leav'd perennial Rocket, with a yellow Flower. This is the *Eruca sylvestris* of *Glaude* and *Dodonæus*, and the *Eruca sylvestris vulgarior* of *Parkinson*.

This wild Rocket has a white, thick, and pretty long Root; from which rise many Stalks, hollow with many Wings, channelled, and a little hairy. The Leaves are cut into Jaggs like those of *Dandelion*, or into the more curious Ones of the smaller *Hieracium*, otherwise of *Cresses*, whose Leaves they likewise resemble in their Smoothness and dark green Colour, as also in their burning Taste; it likewise bears sweet-smelling Flowers ranged in the like Order, but of a yellow Colour: To which succeed long, angular, straight Pods full of acrid and bitterish Seeds, like those of wild Mustard. The Smell of the whole Plant is stinking and disagreeable.

Mr. Ray observed this Plant about and upon Walls, and among Ruins, at *Chester*, *Yarmouth*, *Taunton*, *Litchfield*, &c.

6. *Eruca sylvestris, major, lutea, caule aspero. C. B. Pin. 98.* The greater yellow wild Rocket, with a rough and rugged Stalk. *Eruca sylvestris. Dod. Pempt. 708.*

This seems to be only a Variety of the former Species.

7. *Eruca sylvestris, minor, lutea, Bursa pastoris folio. C. B. Pin. 98. Prodr. 39.* The smaller yellow wild Rocket, with a Shepherds-purse Leaf. *Eruca minimo flore, Monspelienfis. J. B. 2. 862. Eruca Sicula, Bursa pastoris folio. Bocc. Rarior. Plant. 18.*

C. Bauhinus in his *Prodromus* describes it thus. From a pretty thick Root rises a little Stalk above a Palm high, somewhat hairy, and

and branched out into short Wings. Under this lie Leaves spread upon the Ground, an Inch and a half long, jagged after the Manner of *Bursa pastoris media*, somewhat hairy; none upon the Stalk, unless those growing out of the Wings, and these hardly jagged at all. The Flowers are of a golden Colour, and pretty large, resting upon long Foot-stalks, to which succeed short Pods. It is to be found every where about *Montpelier* in Flower, in the *Summer* and *Autumn*.

8. *Eruca Tenacetifolia*. H. R. Par. *Tanacetifolia* d'Rocket. *Eruca Indiana* con foglie di *Tanaceto*. Zan. 86. *Eruca Tanacetifolia*. Moris. H. R. Blef.

Eruca is called in *Greek* *Ἐρῦδιον*, because of its Delicousness in seasoning of Meat. Some would have the *Latin* Name *Eruca* to come *ab urendo*, quasi *Uruca*, the *U* being turned into an *E*, because it is of a fiery and burning Quality, and taken in Food kindles Lust.

Rocket, as *Pliny* justly observes, is of a Nature quite contrary to *Lettuce*, for it kindles Lust; and therefore they are commonly mixed when eaten, that so the Coldness of the one may temperate the immoderate Heat of the other. The *Italians* at this very Day mix a little *Rocket* with their Sallads, and are wonderfully delighted with the Taste of it. *Galen* tells us, that it causes a Headach when eaten alone: It is in a manner solely used for Sauce and Seasoning, to quicken the Appetite, to please the Palate, to increase Seed, and stimulate to Lust; which last Effect has been taken notice of, not only by Physicians and Naturalists, but even by the Poets, as *Martial*,

Et venerem revocans Eruca morantem.

And *Columella*,

Excitat ad venerem tardos Eruca maritos.

And *Ovid*,

Nec minus Eruca jubeo vitare Salaces.

Matthiolus tells us, that the Leaves boiled, and a little Sugar added to them, are prescribed for Children that have a Cough. The Seed bruised and drunk with Wine kills

Worms, and removes the swelling of the Spleen. The bruised Leaves put upon the Eyelids clear the Sight. The Seed mixed with Honey and anointed on the Face, takes away all Spots and Scurfs; but more effectually if you add Ox-Gall. The Root boiled in Water and laid on, draws out any Splinters of Bones, says *Matthiolus*: But *J. Baubinus* prefers the Leaves to the Root for this End.

There are some who affirm for a certain Truth, That they have continued many Years free from the Apoplexy and such like Distempers, only by using equal Parts of the Powder of *Rocket* and *Cummin* in Powder. *Camerarius*.

All the Species of *Rocket*, says *Lemery*, have an acrid and burning Taste in all their Parts, but especially the wild Sorts; they contain abundance of Salt, and a moderate Quantity of Oil.

Rocket, continues the same Author, is proper for cutting, attenuating, and rarifying tough Phlegm; for encreasing the Seed, and for making one sneeze.

The 7th Species is thus analyzed by *Mr. Tournefort*: This Plant, says he, has a Taste altogether acrid and burning, mixed with a Bitterness which discovers it self last. It reddens blue Paper pretty much; and its Smell comes pretty near that of stinking Oils that are rectified over Quick-lime; which gives us Ground to believe that it contains a very acrid and biting Salt, which comes near *Sal ammoniac* mixed with a great deal of fetid Oil and Earth. And thus it is not at all strange, that this Plant opens, cuts, and provokes Urine.

TABLE CXII. Fig. 2.

GENUS IX.

Erysimum, Hedge-mustard.

Hedge-mustard is a Plant with a Cross Flower A, consisting of four Leaves B: Out of whose Flower-cup C, rises the Pointed D, which afterwards turns to a Fruit or Pod E, which is divided into two Cells by an intermediate Partition F, to which the Valves G H, adhere on both Sides, and full

N n n

of

of Seeds L, which are commonly small and round. To these Marks must be added, a Make peculiar to *Hedge-mustard*.

The Species of *Hedge-mustard* are,

1. *Erysimum vulgare*. C. B. Pin. 109. Common *Hedge-mustard*. *Erysimum Tragi, flosculis luteis, juxta muros proveniens*. J. B. 2. 863. *Erysimum, Irio primus*. Tabern. Icon. 448.

It stands upon a white, ligneous, single Root, of an acrid and Turnep Taste, and rarely exceeding the Thickness of one's little Finger. The Leaves are deeply sinuated or rather jagged, and hairy, resembling in Shape the Leaves of *Rocket*, *Shepherds-purse*, or wild *Succory*, but are blunt at the End. The Stalk is a Cubit and a half high, crouded with an alternate Order of Leaves, hairy and branched: The Flowers are very small, yellowish, consisting of four Leaves; which blowing successively, run out into very long Spikes. The Pods are short, scarce a Finger long, round and taper, hairy, clinging to the Stalk, standing upon short Foot-stalks, ending in a sharp Point, and contain a double Row of small oblong Seeds. It is frequently found on Walls and Ruins, and near Hedges.

2. *Erysimum alterum, siliquis Erucae*. C. B. Pin. 101. Another *Hedge-mustard*, with *Rocket* Pods. *Erysimum secundum*. Tabern. Icon. 449.

This *Hedge-mustard* rises up with two or three dark green Stalks, somewhat like the former, but not so much branched, set on all Sides with dark green Leaves, cut into three or four Parts, with almost equal Gashes on both Sides; but the End is the largest, somewhat unevenly waved or dented about the Edges. The Flowers are small and yellow, yet larger than the former, whose Spikes are not so long; neither do the long and round Pods of yellow Seed stand so close to the Stalk, nor are so small, but shorter, like those of *Rocket*. The Root is not so long or woody, but more fibrous, and continues not above a Year.

3. *Erysimum Polyceraton vel corniculatum*. C. B. Pin. 101. *Hedge-mustard* with a great many Pods. *Erysimum alterum Matthioli, siliquis parvis, quibusdam Dentaria*. J. B. 2. 864. *Erysimum alterum Italicum*,

Matthioli. Lob. Icon. 206. This is the *Erysimum verum sive montanum* of Parkinson.

The Leaves of this Species are of a fresher green Colour than either of the former, smaller, and cut in on both Sides into more but smaller Parts, resembling the Divisions on the Leaves of *Dandelion*, but very small, each Part or Corner looking downwards; from among which rise up sometimes two or three Stalks, but more usually but one, which is round and about half a Yard high, thick-set with such Leaves but smaller and full of Branches to the Top; all along which come forth very small yellow Flowers; after which follow whitish yellow small Pods growing close to the Stalk, containing within them small yellow Seed, nothing so strong or sharp as the first, yet somewhat quick on the Tongue. The Root is small, and perishes after Seed-time, but by sowing it self never misses to be in the Ground where it has once seeded.

4. *Erysimum latifolium, majus, glabrum*. C. B. Pin. 101. Great broad-leav'd smooth *Hedge-mustard*. *Irio Apulus alter, Levi Erucae folio*. Col. Part. 1. 265. *Sinapi sylvestre, Monspessulanum, lato folio, flosculo luteo, minimo, siliqua longissima*. J. B. 2. 858.

Along the Stalks of this Plant, which are a Cubit and a half high, somewhat channelled, almost round and solid, are stretched Leaves resembling those of *Dandelion* both in Size and Jaggs, smooth, or at least having no Hairs worth mentioning, and of an acrid Smell and Taste. The Flowers are small and yellow; after which come forth very thick-set and very long Pods, that are full of very acrid Seed.

It flowers and bears Pods in the Month of March in the dry Grounds about *Montpelier*.

5. *Erysimum angustifolium, majus*. C. B. Pin. 101. Great narrow-leav'd *Hedge-mustard*. *Rapistrum sylvestre Iriosis folio*. Col. Part. 1. 168.

This Species has many lower Leaves that are long and narrow, somewhat hairy, but soft, of a pale green Colour, cut in or torn on the Edges, and pointed very like the common *Hedge-mustard*: But those that grow up higher on the Stalk (which is seldom more than one, and about a Yard high, and rough)

rough) are smaller, and have fewer Divisions. The Stalk is branched from the Middle upwards, and sometimes from the very Bottom, bearing smaller yellow Flowers at the Top than any of the rest; after which come small long Pods on all Sides of the Branches, and standing upright, thick and blunt at the Points, with small yellowish Seed in them not very acrid.

6. *Erysimum corniculatum*, Glasti folio, Pyrenaicum. Pyrenean corniculated Hedge-mustard, with a Wood Leaf.

7. *Erysimum Dentis Leonis folio*, perenne, Pyrenaicum. Perennial Pyrenean Hedge-mustard, with a Dandelion Leaf.

From the Head of the Root it sends up a Turf of Leaves annexed to long roundish Foot-stalks, marked here and there with red Spots that vanish in the Summer. The Leaves themselves are jagged, above an Inch broad, and above a Palm long, ending in a Point that bends downwards, tender and succulent, green on the upper Side and pale underneath, and much like wild *Rocket*. Out of the Middle of the foresaid leafy-Turf rises a branched Stalk, full of green Pith, succulent, hard to be broken, smooth and somewhat shining, of a faint green Colour, spotted with red Spots at the Knots where the Leaves rise, and divided into many Joints, especially towards the Root; at each of which rises a single Leaf, and out of the Bosoms of the Leaves Branches, which are clothed with such-like Leaves, but smaller and more cut. About the End of *April* appear Umbells or Tufts of Flowers on the Tops of the Stalks and Branches, which opening, discover a yellow Flower with Chives of the same Colour. To these succeed corniculated Pods, in Form like those of *Fennugreek*, but much narrower and thinner. When the Flowers open and blow gradually, an Umbell runs into a long Spike of Pods that are a little flat, about an Inch long or better, and full of protuberant Seeds when ripe. Towards the End of *August* the Pods gape, and from them fall yellow, shining, oblong Seeds, like *Cress* Seeds. The Root is long, white and knobby, rough to the Touch, half an Inch thick on the upper Part, smaller in the Middle, tough and yielding, of a strong sharp Smell, and a bitterish and somewhat acrid Taste. The Leaves are not

quite so acrid and bitter; but the Seed is more biting, and acrid like *Mustard* Seed.

8. *Erysimum Græcum*, angustifolium, majus, procetius, & minus hirsutum. Great, narrow-leav'd, tall and smooth Hedge-mustard.

9. *Erysimum orientale*, Rapi folio. Oriental Turnep-leav'd Hedge-mustard.

10. *Erysimum orientale*, minus, flore al-bido. Small oriental Hedge-mustard, with a whitish Flower.

Erysimum is supposed to come from *ἐρύσιμον* *Servo, incolumem præsto*, because of the notable Vertues of this Plant.

The first Species is most in Use, and of that the Seed and the Herb it self. It warms, dries, attenuates, opens and expectorates. Its chief Use is in an obstinate Mucilage of the Lungs, and in a chronical Cough. It is applied outwardly to a Cancer that is not exulcerated, and to the hard Swellings of the Breasts. *Schrod.*

The whole Plant green, is commended by *Lobel*, for an inveterate Hoarseness, because of its attenuating, opening and expectorating Force. *Hoffm.*

Riverius cured many of the Cholick with the Decoction of *Hedge-mustard*, which is also a most efficacious Remedy in Wine.

Parkinson tells us, that it does not dry thick and viscous Phlegm, but makes it to be easily expectorated; for it is singularly good in all the Diseases of the Chest and Lungs, and Hoarseness of the Voice; and by the Use of the Decoction thereof for a little Time, those have been perfectly recovered who had utterly lost their Voice, and with that their Spirits also. The Juice made into a Syrup or Lohoc with Honey or Sugar, is no less effectual for the same Purpose, and for all Coughs, Wheezings, and Shortness of Breath. The same is likewise taken with Success by such as have the Jaundice, Pleurisy, Pains in the Back and Loins, Gripes and Wringings in the Guts, and is likewise used in Glysters. The Seed is held to be a special Remedy against Poison and Venom. It is singularly good for the Sciatica or Hip-gout, the Gout and all Joint Aches; as also for Fistula's, hollow Ulcers, and eating or running Cancers, &c.

Hedge-mustard, says *Lemery*, contains abundance of essential Salt and Oil. It is cutting, cleaning,

cleansing, and opening : It excites Spitting, facilitates Respiration, and is vulnerary. The Seed of this Plant is used for the Asthma, for the Scurvy, and for the Stone.

Our *Hedge-mustard*, says *Tournefort*, has a Sort of an herby, saltish and glutinous Taste. This Plant reddens blue Paper pretty much ; which gives Room to think, that it contains a Salt much of the same Nature with *Sal ammoniac* tempered with Phlegm, Sulphur and Earth. And thus *Hedge-mustard* is proper in all Diseases of the Lungs, where a thick Lymph is to be thinned, which sticks to the Bronchiæ and Vesicles, as it often happens in old Coughs, and in an Asthma. The Broth of an old Cock, in which a Handful of this Herb is boiled, is prescribed for such as labour under these Distempers. The Syrup made of the Juice is extremely good : But the Syrup which is described in the *Pharmacopœa* of *Rondeletius*, and which was published by *Pena* and *Lobel*, with their Remarks, is too compound.

TABLE CXIII.

GENUS X.

Sinapi, Mustard.

Mustard is a Plant with a Cross Flower A, consisting of four Leaves B : Out of whose Flower-cup C, rises the Pointal D, which afterwards turns to a Fruit or Pod EF, which is divided into two Cells by an intermediate Partition GL, to which the Valves HI, MN, adhere on both Sides, and furnished commonly with roundish Seeds KP, and generally ending in a certain fungous Horn containing like Seed O. To these Marks must be added, an acrid and burning Taste peculiar to *Mustard*.

The Species of *Mustard* are,

1. *Sinapi Rapi folio*. C. B. Pin. 99. *Mustard* with a Turnep Leaf. *Sinapi filiqua latiuscula, glabra, Semine rufo sive vulgare*. J. B. 2. 855. *Sinapi sativum, primum*. Dod. Pempt. 706. Common *Mustard*.

This Species grows several Cubits high, with a Stalk hairy on the lower Part, but smooth on the upper Part, branched into

many Arms, round, and full of fungous Pith. The undermost Leaves are broad, and ragged or as it were torn, as also hairy ; but the upper Leaves are smaller and smooth, i. e. not so rough as the upper ones, and of the same Smell if bruised, as you may perceive in the Seed. The Flowers are smaller than *Rocket* Flowers, and resemble those of yellow *Charlocks*, consisting of four Leaves, with Chives possessing the Middle, and are defended by four small Leaves of a pale herby Colour, and a sweet Smell. To these succeed smooth and pretty short Pods, like those of the greater *Rocket*, but lesser, having a short Foot-stalk, gaping, and containing about eight Seeds, whereas in *Rocket* there are more, of a less dark Colour, and somewhat bigger, differing from the Seeds of *Charlock* in this, that they are reddish and not lucid, whereas they are black and shining. The Root is white, ligneous and brittle, and full of Fibres.

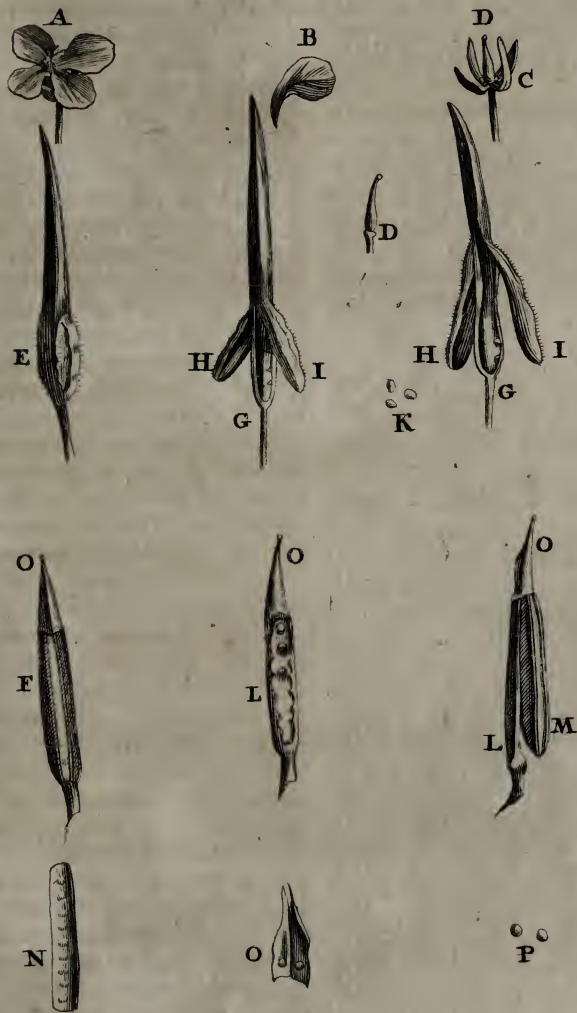
J. Bauhinus observes upon this Plant, That no *Botanist* that he knows of has ever given a good Figure of this Plant, and that he never saw it accurately described by any One : And indeed there is a wonderful Confusion and Obscurity amongst *Botanists* upon this Genus.

Thomas Johnson, in his Edition of *Gerarde*, has described this Plant, which we call *Mustard*, best of any, tho' but very shortly and succinctly. Our ordinary *Mustard*, says he, has Leaves like *Turneps*, but not so rough ; the Stalks are smooth, and grow sometimes three, four, or five Cubits high ; they have many Branches, and the Leaves upon these Branches, especially the uppermost, are long and narrow, and hang downward on small Foot-stalks : The Cods are short, and lie flat and close to the Branches, and are somewhat square : The Seed is reddish, or yellow.

2. *Sinapi album, filiqua hirsuta, semine albo & rufo*. J. B. 2. 856. White *Mustard*, with a hairy Pod, and white or reddish Seed. *Sinapi Apii folio*. C. B. Pin. 99. *Sinapi hortense, semine albo*. Ejuld. *Sinapi sativum alterum*. Dod. Pempt. 707. White *Mustard*.

The Root of this Plant is single, white and ligneous, about the Thickness of one's Finger, and a Palm or a Palm and a half long, sending forth from its Sides long oblique

Sinapi. Mustard.





lique Fibres. The Stalk is a Cubit, or a Cubit and a half high, and sometimes higher, branched, hairy, and naked. *J. Baubinus* makes it to be three or four Cubits high, and an Inch thick; but in our Soil it never arrives at that Height, and is frequently not a Cubit high. The Leaves are like *Narrow Leaves*, deeply sinuated or jagged, especially the lower ones, and furnished with Prickles both on the upper and under Side. The Flowers are yellow, like those of the common *Charlock*, unless that they rest upon longer Foot-stalks, and are sweet-smelled. To which succeed Pods sticking out from the Stalks, which are hairy, and somewhat knotty by Reason of the Seeds bulging out, ending in a broad, thin, and oblong Point, which remains after both Parts of the Pod are fallen away, hanging with the intermediate shining Membrane, which separates three or four Seeds on both Sides, which are larger than *Charlock* Seed, white, round, and not so biting as common *Mustard* Seed.

That which abounds in our Fields, and does harm to the Corn, has a reddish Seed, which becomes dusky when it is fully ripe, and does not seem to differ from that just described in any other Respect.

3. *Sinapi arvense, præcox, semine nigro. Morif. Hist. Oxon. Part. 2. 216. Early Field Mustard, with a black Seed. Rapistrum flore luteo, foliis incisiss vel sinuatis. C. B. Pin. 95. J. B. 2. 844. Rapistrum arvorum. Lob. Icon. 198. Charlock, or wild Mustard.*

So great is the Resemblance of yellow *Charlock*, when it is grown up, to *Mustard*, that it might deceive any One at first View. The Stalk which is a Cubit or a Cubit and a half high, is divided into a great many Branches: The Leaves are like those of *Turnep*, but not divided into so many Jaggs on both Edges, and having their End broad and oblong. When they are bruised they do not strike the Nose with that acrid Smell of *Mustard*, but have a perfectly oleraceous Smell. The Flower is yellow, and differs in nothing; but in the Pods there is a very remarkable Difference; seeing in *Charlock* they are twice as long as in *Mustard*, nor are they quadrangular and flat as the other, but plump and consist of many Angles, resting upon short Foot-stalks, and not

sticking out much from the Stalk: When they gape, the Seed appears, adhering in like Manner to a middle Membrane; but they are more in Number, as well as shining and black, whereas those of *Mustard* are reddish, with no shining or polishing upon them, and are smaller, but do not yield to them much in their Acrimony.

It grows but too plentifully among the Corn.

4. *Sinapi arvense, præcox, semine nigro, foliis integris. Early Field Mustard, with black Seed, and whole Leaves. Rapistrum flore luteo, foliis non incisiss. C. B. Pin. 95. Rapistrum. Dod. Pempt. 675.*

5. *Sinapi Erucæ folio. C. B. Pin. 99. Mustard with a Rocket Leaf. Sinapi Eryfimo Tragi cognatum sive simile. J. B. 2. 857. Sinapi sylvestre. Dod. Pempt. 707.*

6. *Sinapi Hispanicum, foliis lobatis, flore Sulphurei coloris. Spanish Mustard, with lobed Leaves, and a flower of a Sulphur Colour.*

7. *Sinapi Hispanicum, Nasturtii folio. Spanish Mustard, with a Cress Leaf.*

8. *Sinapi Hispanicum, minus, Raphani folio. The smaller Spanish Mustard, with a Radish Leaf.*

9. *Sinapi Hispanicum, pumilum, album. White dwarf Spanish Mustard.*

10. *Sinapi Indicum, maximum, Lactucæ folio. Schol. Bot. The great Indian Mustard, with a Lettuce Leaf. Sinapi Indicum, Lactucæ folio. Par. Bar.*

It rises with Stalks above two Foot high, branched, smooth, and full of white Pith; to which adhere broad, smooth, fat Leaves, placed alternately, of a yellowish green Colour, somewhat like the Leaves of *Lettuce*, and gently notched round the Edges. Towards the Tops of the Branches break forth yellow, tetrapetalous or four-leav'd Flowers, for the Length of a Span, with a lax four-leav'd Flower-cup, and supported by Foot-stalks half an Inch long; to which succeed Pods consisting of two Cells, round, thickish, upright, half a Finger long, ending in a Point with a dark brown Extremity; and appear knotty or as it were jointed, by Reason of the Protuberance of the Seeds. The Taste of the whole Planr is biting, and the Smell is a fragrant *Turnep* Smell, like that of *Mustard*.

11. *Sinapi Indicum*, *Lactucæ foliis angustioribus*. *Flor. Bat.* Indian Mustard, with narrower Lettuce Leaves. *Sinapi Indicum*, *Lactucæ folio, minus, seu angusto, profundius crenato*. *Par. Bat.*

This is smaller, narrower, and slenderer than the former; the Leaves are more frequently and more deeply jagged; the Flowers are of a more pale yellowish Colour; the Pods are shorter, narrower, and pointed.

12. *Sinapi arvense, præcox, Constantinopolitanum, semine nigro, flore albo*. Early Constantinopolitan Field Mustard, with black Seed, and a white Flower.

13. *Sinapi arvense, præcox, Constantinopolitanum, semine nigro, flore albo, lineis purpureis striato*. Early Field Constantinopolitan Mustard, with black Seed, and a white Flower striped with purple Lines.

14. *Sinapi arvense, præcox, Constantinopolitanum, semine nigro, flore purpurascente*. Early Field Constantinopolitan Mustard, with black Seed, and a purplish Flower.

15. *Sinapi Græcum, maritimum, tenuissimè laciniatum, flore purpurascente*. Greek maritime Mustard, finely jagged, with a purplish Flower.

16. *Sinapi orientale, maximum, Rapi folio*. Great oriental Mustard, with a Rape Leaf.

17. *Sinapi orientale, altissimum, foliis Erysimi*. Very tall oriental Mustard, with Hedge-mustard Leaves.

Sinapi is thought to be so called from *σινεπ & ωπας*, because Mustard Seed makes the Eyes smart by the Strength of its Smell; or from *σιναν νερου*, because its Leaves resemble Navee Leaves.

Mustard Seed is very frequently used for seasoning of Meat. Our Countrymen, says *J. Baubinus*, steep the Seed all Night in Water, and then squeezing it with their Hands they throw some Vinegar upon it, and then bruise it with an Iron Ball. Mustard is prepared after various Methods: For some dry the Seed at the Fire, then they beat it in a Mortar, and sift the Powder through a Sieve, and mix it well with Vinegar almost to the Consistence of an Electuary: Others powder it in a Mill prepared for that Purpose, together with Verjuice. This is called Mustard by the English, and *Montarde* by

the French, from *Mustum*, and *ardere*, quasi *mustum ardens*; because this Composition is made of Mustard Seed bruised, and Must of Wine somewhat thickened, in order to have a Sort of a liquid Paste, that is acrid or biting and burning, which is used in Sauces to quicken the Appetite.

Nothing is more common among us at this Day than this Mustard for Sauce, and nothing seems to be more acceptable at Meals, for several Dishes. If by any Means the Appetite flags, the Acrimony of Mustard will recover the true Taste to such as have a Loathing or Squeamishness, and will serve as a Provocative where the Stomach is palled, and tickle the stubborn Palate like a Sort of Fire, to devour Meat with Greediness. But the Force of it is carried immediately up to the Nose, and provokes Sneezing, and draws Water from the Eyes; nor is there any Thing that more powerfully penetrates into the Head and Brain. From hence it helps such as have the Falling-sickness, and raises up those who are oppressed with the Suffocation of the Womb; it banishes Drowsiness from the Lethargick, and in general gives Ease to all cephalick, paralytick, and apoplectical Affections, either put up the Nose, or administered in Sinapisms, i. e. Applications of the powder'd Seed to any Part of the Body in order to cause a Redness upon the Skin: These Applications are made to the End that the Humours which lie deep, may be drawn to the Surface; which Medicines the Methodists called *Metasyncretica*.

Both the antient and modern Physicians and Botanists attributed many Vertues to Mustard; such as provoking the Menstrua and Urine, exciting and stimulating to Venerie, restraining and preventing the Fits of Agues, removing Catarrhs, curing Hoarseness, expectorating tough Phegm, loosening the Belly, and discussing Tumours; freeing the Sensories from Excrements, expelling Worms, strengthening the Stomach, curing the Suffocations of the Womb, purging the Head, and cleansing the Viscera from any Stoppage or Obstruction.

Simon Pauli tells us, That Mustard is of excellent Use for such whose Stomach and Intestines abound with many viscid and tough Humours, which it melts, dissolves, and washes away; upon which Account it is to be

be recommended to such as are troubled with the Scurvy ; but then its Acrimony must be corrected by Vinegar, to prevent its striking the Nose with too much Fury. They who sweeten it with Sugar do but ill consult their Health ; for Sugar fixes its Acrimony, by which it resists the Scurvy.

Mustard Seed brayed in a Mortar and mixed with white Wine, restored many Hundreds that were ill of the Scurvy and in a languishing Condition, to Health, in the Siege of *Rochelle*. For a great many of the Besieged being pressed with Hunger, and obliged to eat Things unwholesome, and which Nature abhorred, contracted a Difficulty of Breathing, Rotteneffs of Gums, Blackness and Looseness of Teeth, and other Symptoms of the Scurvy, upon which many of them died, till at last they found *Mustard* in great Plenty in the Ditches about the Town, which taken in the Way just mentioned, recover'd all of them. This is taken from the Relation of *Mervault*, who was in the Town during the whole Siege.

Mustard drunk to a great Quantity with warm Wine, cures a *Quartan* Ague, if it be taken two or three Hours before the Return of the Fit. *D. Palmer ex relatione D. Hermannii.*

A Citizen of *Dantzick*, who was very apt to have a Vertigo and Apoplexy, used to chew *Mustard* Seed for a Preservative, by the Advice of Physicians ; But when he was not able to do this any longer by Reason of Age, he rolled it in his Mouth in Powder : At last, when he could not even do this, he tied it up in a Linnen Cloth and smelt to it. And all this he did, that at an extreme old Age he might live free from those Distempers. *D. Soame ex Observat. Hieron. Reusner, à velschio editis.*

Mustard Seed, says *Lemery*, contains a great deal of essential Salt and Oil, and is used in Physick. It is curing, opening, attenuating, proper for quickening the Appetite, for dissolving Phlegm, and for breaking the Stone in the Kidneys. It is used in a *Quartan* Ague, in hypochondriacal Melancholy, and in the Scurvy. It provokes Sneezing, dissolves Tumours, digests and kills Abscesses. The Powder of it is used both internally and externally. It is laid on the Shoulders where

Cupping Glasses have been applied with Scarifications, in Order to raise the Patient in an Apoplexy or Palsy ; and this is called a Sinapism, which makes the Part smart extremely.

Tournefort gives us a very accurate Analysis of this Seed, as he does of every Thing he writes of. *Mustard* Seed, says he, by a Chymical Analysis, gives a much greater Indication of an acrid than of an acid Salt : But we draw from it a considerable Quantity of Oil, very little Salt simply saline, abundance of Earth, a little urinous Spirit, and no volatile concrete Salt. This Seed is stomachick, diaphoretick, and antiscorbutick. It is a good Remedy for the hypochondriack Affection, for the Green-sickness, for the Cachexy, *i. e.* an ill Habit of Body that corrupts the Nourishment, and for drowsy or sleepy Distempers. *Mustard* Seed is prescribed to be chewed in a Morning fasting, to such as are threatened with an Apoplexy. The following Cataplasim eases the Pain of the Rheumatism in the Breast : Fry *Leeks* minced small with Vinegar ; and when they are done strew a little brayed *Mustard* Seed over them, and thus you have the Cataplasim desired. You must lay this Cataplasim on the Part affected, for it is very resoluteive : This will raise Blisters if you put a good deal of *Mustard*. Some make a Cataplasim with Turpentine, Pidgeons Dung, and *Mustard*, and apply it to the Parts where the Gout gives Pain, and even to the Jaw in a violent Tooth-ach.

The *Italians* take two Ounces of *Mustard* Seed, and half an Ounce of *Cinnamon* well beaten, which they make up into Balls or Cakes with Honey and Vinegar ; which being dried in the Sun are kept for Use : This diluted with a little Vinegar, is presently made into a Sauce, which is very delicate and pleasing both to the Palate and the Stomach.

TABLE CXIV.

GENUS. XI.

Rapa, Turnep.

Turnep is a Plant with a Cross Flower A, consisting of four Leaves B: Out of whose Flower-cup C, rises the Pointal D, which afterwards turns to a Fruit or Pod E, and is divided into two Cells by an intermediate Partition F, to which the Valves GH, adhere on both Sides, and full of Seeds L, which are generally roundish, and commonly ending in a Sort of a fungous Horn I, with a like Seed K. To these Marks must be added a carneous and tuberous Root M N.

The Species of Turnep are,

1. Rapa sativa, rotunda, radice candida. C. B. Pin. 89. Round Garden Turnep, with a white Leaf. *Rapum sativum, rotundum.* J. B. 2. 838. *Rapum vulgare.* Dod. Pempt. 763.

Turnep has large Leaves spreading upon the Ground, that somewhat resemble the Leaves of red Colewort, and are of a dark green Colour, rough, and jagged on both Sides to the very middle Rib, and are of an oleraceous Taste. The Flowers are yellow. The Seed in the Pods is reddish, round, and very much like Colewort Seed. The Root which is sessile sometimes swells to a very big Belly, little less than a Man's Head, sending down a small Fibre to suck in Nourishment; otherwise equal or very near equal to one's Fist; both of which have white Flesh that is pretty firm, of an acrid Taste less or more brisk. Thus far *J. Bauhinus*. To these add, That the Stalk of this Plant rises as high as a Man: That the upper Leaves which are on the Stalk are oblong, smooth, grey, embrace the Stalk with a broad Bottom, and end in a sharp Point: That the Flowers are like those of common Charlock, upon long, slender and smooth Foot-stalks: To which succeed taper Pods divided into two Cells parted by an intervening Membrane, and containing a double Row of round Seeds.

The Seeds are sown every where in Fields and in Gardens, for the Sake of the Root, as well in England as in Foreign Countries.

It varies in the external Colour of the Root, which is sometimes green, and sometimes of a blackish scarlet Colour: We have also frequently some with us here in England that are yellow both without and within, which Colour becomes more manifest and deeper by-boiling. It varies likewise in the Bigness and Smallness of the Root: *Pliny* and *Tragus* had seen some weighing 40 Pound, and *Amatus* saw some that weighed fifty or sixty Pound. *Matthiolus* relates, That he saw Turneps without Number near the Po above fifty Pound Weight, and in some Places an hundred Pound Weight. How incredible is this? and yet we are not to reject such Accounts as fabulous, since a warm Climate and a rich Soil, provided there be sufficient Moisture, do very much conduce to enlarge the Bulk.

2. Rapa sativa, rotunda, radice obsolete nigricante: C. B. Pin. 90. Round Garden Turnep, with a Root of a rusty black Colour.

3. Rapa sativa, rotunda, radice viridi. C. B. Pin. 90. Round Garden Turnep, with a green Root.

4. Rapa sativa, rotunda, radice punicea. C. B. Pin. 90. Round Garden Turnep, with a scarlet Root.

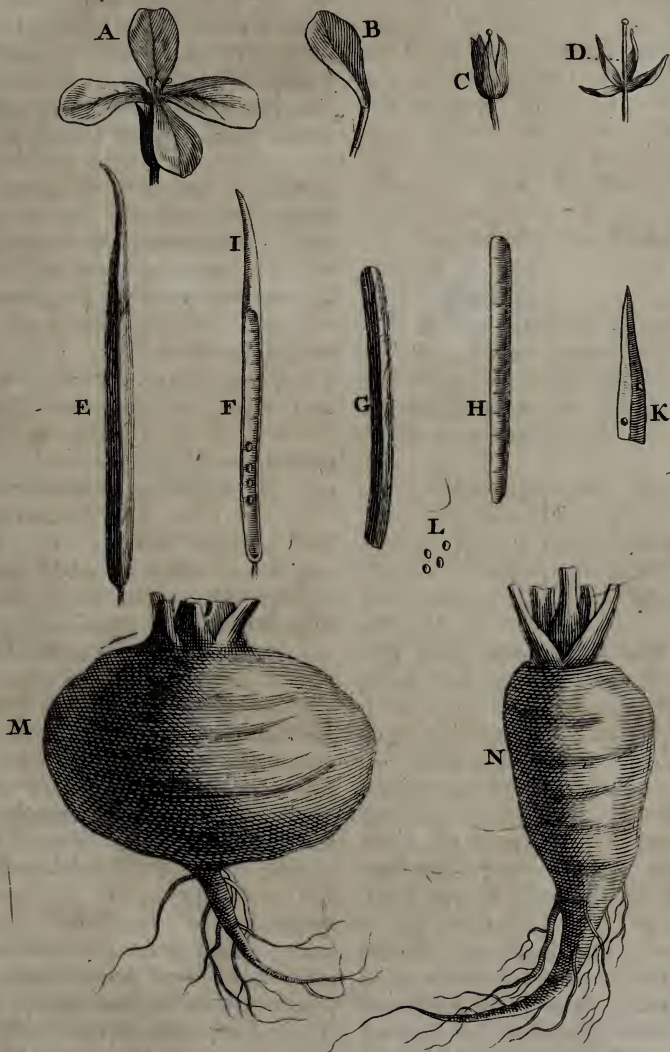
5. Rapa sativa, rotunda, radice foris & intus flavescente. C. B. Pin. 90. Round Garden Turnep, with a yellowish Root both without and within.

6. Rapa sativa oblonga, seu foemina. C. B. Pin. 90. Oblong or female Garden Turnep. *Rapum sativum oblongum.* J. B. 2. 838. *Rapum oblongius.* Dod. Pempt. 673.

This does not differ from the former Species, excepting only in the Figure of its Root, which is oblong and thick; some of which are so large that they have been known to weigh a hundred Pound each. The Root of this Species is reckoned more delicious to the Taste than the former.

Rapa is called by the Greeks *Ρογγύλη*, *Ρογγύλις*, and also *Ράπος* and *Ράππος*. *Varro* says it is called Rapa, quod ex terra rueret, quasi Ruapa. Others think it was thus named, quod passim Rapiatur. But it is easy to perceive

Rapa. Turnep.





perceive that it must have received its Name from the *Greeks*, who call it *Rhaphys* and *Rhappys*, as *Athenæus* testifies.

The Root of this Plant is much used in the Kitchen; it nourishes but little, and generates Wind, and makes loose and infirm Flesh. For which Reason, says *J. Bauhinus*, in order to correct that Fault, some use to boil it with Milk, that it may please the Palate better, and nourish more effectually. We in *England* press out the watery Part of the boiled Root, and then eat it with Butter and Pepper. It provokes Urine and encreases Seed. It neither binds nor loosens the Belly.

The chief Use of the Seed is in Antidotes, such as *Mithridate* and *Treacle*. It provokes to Lust, and drives out the Small Pox and Measles. The Dose is half a Dram.

The Juice and Broth of *Turneps* are recommended for carrying off a *quarant* Ague.

Our Countrymen, who first inhabited an *American* Island called *Terra Nova*, found the Vertue and Efficacy of eating raw *Turneps* in curing the Scurvy.

The Juice of roasted long *Turneps* with Sugar, is a good Remedy for curing a Cough in Children. *Schwenck*.

The outer Coat of a round *Turnep* roasted under hot Embers, and applied very warm behind the Ears, makes a very effectual Revulsion, and quickly cures a Headach or a Toothach. This is a great Secret. *Id.*

Turneps are applied externally to Ulcers in the Leggs, &c. with extraordinary Success, as also to Swellings in Womens Breasts, and elsewhere to scrophulous and scorbutick Tumours. *D. Needham*.

A desperate Cough occasioned by a continual eating of Lemons was at length cured by using the Decoction of *Turneps*. *Tulpii Observ. p. 311.*

The common People in *Holland*, being taught by the Practice and Prescriptions of Physicians, in the Exulceration of the Mouth, neglecting all painful and costly Medicines, use with very good Success the sole Juice of *Turneps* sweetned with Sugar, or if the Season of the Year denies that, only Small Beer with a little Sugar in it. Which two Medicines, used to wash all Parts of their Mouth, and reaching to the very Throat, not only alleviate the Acrimony of the Exulcerations,

but likewise mitigate all excessive Qualities, and in this Manner ripen them. *Ketelaer in commentario Medico de Aphthis.*

Turneps, says *Lemery*, are very much used in Kitchens. We eat them after they are boiled; but they are windy. They contain abundance of Oil and essential Salt. The Decoction of *Turneps*, continues he, is good for curing Hoarseness and a Cough, being sweetned with Sugar, and drunk at Night when the Patient goes to Bed. The Seed is accounted proper to resist Poison, and to kill Worms.

GENUS XII.

Napus, Naveu.

Naveu is the Genus of a Plant which differs from *Turnep* only in that peculiar Make and Appearance, by which it is easily known to Gardners and Husbandmen: Wherefore you may, if you please, reduce it to the same Genus.

The Species of *Naveu* are,

1. *Napus-fativa*, radice alba. *C. B. Pin.* 95. Garden *Naveu*, with a white Root. *Napus.* *J. B.* 2. 842. *Dod. Pempt.* 674. This is the *Bunias* of *Gerard*, which he calls *Naveu gentle*.

It rises with a Stalk above a Cubit high, hollow with many Wings. The Leaves, which want Foot-stalks, embrace the Stalks and Branches with their Wings; the lower ones, which are sinuated, and the upper ones which are not sinuated do both end in a Point. [*Lobel* says, the Leaves are not so rugged as *Turnep* Leaves.] The Flowers are yellow like those of *Colewort*; and the Seed is also something like, in long Pods. But the Root is like *Turnep*, but not swelling into so great a Belly, shooting deeper down into the Earth, of a compact fleshy Substance that has a somewhat acrid Taste. [Sweeter than long *Turnep*, and a more delicious Food. *Lobel.*] The Colour of the Root is commonly white, tho' sometimes it be of a yellow or tawny Colour.

It is sown and cultivated in Gardens. It grows in great Plenty at *Mompelien*, but not wild, as I am apt to believe.

2. *Napus sativa*, radice lutea aut buxea. *C. B. Pin. 95.* Garden Ravew, with a yellow or hor-coloured Root.

3. *Napus sativa*, radice nigra. *C. B. Pin. 95.* Garden Ravew, with a black Root.

4. *Napus sativa*, altera, maxima radice. *H. R. Par.* Another Garden Ravew, with a very great Root.

5. *Napus sylvestris*. *C. B. Pin. 95. F. B. 2. 843.* Wild Ravew. *Bunias sylvestris*, *Napus flore luteo.* *Lob. Icon. 200.*

The Flowers, Pods and Seeds are very like those of the Garden Kind; but the Leaves are more cut and jagged; nor do they adhere to the Stalk by Foot-stalks. But the Root savours of the wild Kind, is smaller, not much larger than the Joint of one's Thumb, shaped like a Top, and of an acrid Taste.

The Leaves are more like those of *Colewort* than those of *Turnep*: But the lower Leaves which grow up from the Root are somewhat rugged, especially on the upper Side.

It grows in the Corn-fields and in Ditches in great Plenty, here with us in *England*.

Navew Roots are hotter than those of *Turnep*, but have the same Vertues; so that we need not repeat them here. The Seed taken in a Draught blunts the Edge of Poisons, and is for that Reason made an Ingredient in Antidotes, such as *Theriac*, &c.

Both the Garden and the wild Kind, says *Lemery*, contain a great deal of Phlegm, Oil, and essential Salt. *Navew* Seed is deterfive, aperitive, digestive, and incisive: It resists Poison; it throws out bad Humours by Transpiration: It provokes Urine, is proper for the Jaundice, for malignant Fevers, and for the Small Pox. It is used in Treacle. *N. B.* The Seed of the wild Kind is preferred before the Garden Kind.

Its Root, continues the same Author, is good for an inveterate Cough, for an Asthma, and for a Consumption, being taken in a warm Decoction like Broth. It is likewise used in outward Applications, grated, to digest, resolve, and ease Pains. It is applied after the Manner of a Cataplasm.

The Seed of the wild *Navew*, heated, and pressed with Hand-mills, yields a great Quantity of Oil, which is used not only with Food, but likewise for Lamps. The

Bird-catchers with us feed their Linnets, Chaffinches, and other such-like Birds in Cages, with this Seed. *Ruel.*

Mr. Ray is of opinion, That the Oil which we call Rape Oil in this Country, is made of the Seed of this Plant ground and pressed.

Mr. *Lemery* says, That the Seed commonly called *Navette*, is not *Navew* Seed, as a great many imagine, but is the Seed of a Kind of *Colewort*, which in Flanders is called *Cossa*: This is cultivated in *Normandy*, *Brie*, *Holland* and *Flanders*: The Oil drawn from it by Expression is of a yellow Colour, of no disagreeable Smell, and is sweeter to the Taste. It is comonly used to burn in Lamps; and the Felt-makers do use it in working and dressing their Stuff. Applied externally it is resolute and lenitive; but is not much used in Physick.

TABLE CXV.

GENUS XIII.

Raphanus, Radish.

Radish is a Plant with a Flower in Form of a Cross A, consisting of four Leaves B: Out of whose Flower-cup C, rises the Pointal D, which afterwards turns to a Fruit or Pod in the Shape of a Horn EF, that is thick, spongy, and furnished with a double Row I, of reddish Seeds K, and separated GH, by a thin Membrane L.

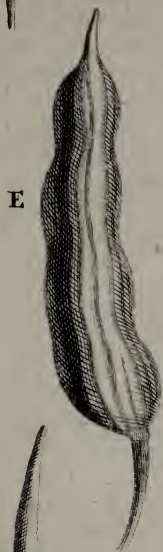
The Species of Radish are,

1. *Raphanus major*, orbiculatus vel rotundus. *C. B. Pin. 96.* The greater round Radish. *Raphanus sive Radiowa sativa.* *Dod. Pempt. 676.*

The Leaves do very much resemble *Turnep* Leaves, insomuch that they may easily impose even upon the most experienced Botanists; but they are a little more sinuated; and the other Parts do still less agree; for the *Radish* Flower is of a purple Colour, with yellow Chives. The Pods are thicker, short, fungous, pointed, and divided into tuberosous Cells with Hollows intervening; in the middle of which spongy Substance lie roundish red Seeds, larger than the Seeds of

Coleworts.

Raphanus: Radish.



Colewort or any Kind of *Mustard*. The Root is thick, carneous and long, of different Sizes, with a red outer Bark, especially on that Part which appears above Ground, rarely white, and of an acrid biting Taste. It rises with a Stalk not perfectly straight, one or two Cubits high, and very much branched. This is the Description of *J. Baubinus*.

Mr. *Lemery* describes it thus. *Radish* is a Plant that sends up great, broad, rugged, green Leaves, deeply jagged, resembling *Turnep* Leaves, but somewhat more sinuated. Among these rise Stalks a Foot and a half or two Foot high, round, branched, bearing purple Flowers with four Leaves, disposed like a Cross: When these Flowers fall, they are succeeded by Pods in the Shape of a Horn, spongy, and containing Seeds that are almost round, red, and bitter or biting to the Taste. Its Root is long and thick, but sometimes more, and sometimes less so, fleshy, white or red, sometimes blackish, and of an acrid piquant Taste, but agreeable. This Plant is cultivated in Gardens, and its Root is dug up chiefly in the Spring, when it is tender, succulent, easily broken, and fit to be eaten.

2. *Raphanus major, orbicularis vel rotundus, floribus candidis. C. B. Pin. 96.* Great round *Radish*, with white Flowers.

3. *Raphanus niger. C. B. Pin. 96. & Lob. Icon. 202.* Black *Radish*.

This *Radish* does not differ much from common *Radish* either in Stalks, Flowers, Pods or Seed. *Parkinson* makes this to have smaller Leaves and deeper jagged, and lesser Flowers and Seed. The chief Difference is in the Root, which is black without, or covered with a black Bark, white within, thick, of the Figure of a *Turnep* or rather of a Pear, and of a harder and firmer Substance than common *Radish*, but no less acrid and biting.

Parkinson sowed the Seed of this Species, which produced Plants, some of which had black Roots, but the greatest Part were covered with a white Skin.

4. *Raphanus minor, oblongus. C. B. Pin. 96.* Smaller oblong *Radish*. *Raphanus. J. B. 2. 486. Radicula sativa, minor. Dod. Pempt. 676.*

From this Genus ought to be excluded *Raphanus rusticus. C. B. Pin. 96.* because it belongs to *Cochlearia*. *Raphanus aquaticus*

foliis in profundas lacinias divisis. C. B. Pin. 97. which belongs to *Sisymbrium* with the following, viz. *Raphanus aquaticus, Rapistris folio. C. B. Pin. 97.*

Raphanus got its Name, according to *Athenæus*, from *πάστος* *facile*, and *ραίζα* *appareo*, as if one should say, a Plant that quickly appears; for *Radish* appears quickly after it is sown, viz. the third Day after; and indeed we know no Plant buds up sooner from Seed than this.

The Name of *Root*, according to the Testimony of *Varro*, came from *Greece* to *Italy*; for the ancient *Greeks* call that a *Root*, which we now call *Raphanus*. Now from the *Latin* Word *Radix*, came the *English* Name *Radish*, and not from the red Colour of this Root, as some have groundlessly imagined, because we do corruptly both pronounce and write it *Reddish*.

Tho' all the Parts of this Plant might have their Use in Physick, yet there is commonly no more of it used but the Root and the Seed.

It warms, dries, opens, cleanses, and attenuates. Its chief Use is in breaking and expelling the Stone, in provoking Urine and the Terms, and in removing the Obstructions of the Liver and Spleen. It attenuates viscous Mucilage in the Stomach, and helps the Distribution of the Chyle and Humours. It is applied outwardly to the Soles of the Feet in Fevers, and to the Neck in Pains of the Head that accompany malignant Fevers. *Sebrad.*

Concerning the external Use of this Plant, I shall only add, That the Use of *Radish* is not to be despised in Corns on the Feet or Toes: For if they be cut so close in the wane of the Moon till they smart, and the biting Juice of the Pulp of *Radish* be dropped upon them, they will certainly vanish. *Radish* likewise draws out Thorns and Splinters, if it be mixed with Goose-grease and laid on the Part affected. *Hoffman*. Notwithstanding the critical Time of curing Corns by this Application, which our Author seems to lay some Stress upon, yet I have a strong Fancy that the Medicines would work full as well, either under the Influence of the New or of the Full Moon; so that I hope no one will tie himself down to such superstitious Observances either in this or any other Case.

Tho' the Root is chiefly designed for the Kitchen, and is but very rarely used in Physick; and tho', as *Galen* says, it is more proper for a Dish than for a Medicine; yet, as we have already seen, and shall see further in the Sequel, it wants not it's Use in Physick. The very Taste, without any Thing more, evinces that it is biting and warms: And therefore we are rather disposed to give our Assent to those who attribute to it the Quality of strenghtning the Stomach, and promoting Concoction, than to *Galen* and others after him who maintain the contrary, which they probably did for this Reason, That it creates Belching; and therefore *Pliny* was pleased to call it *cibus illiberalis* a poor and unmannerly Food.

Taken with Honey it cures the Cough. It is esteemed very good against the Poison of *Toadstools* and *Henbane*. *Discorides* informs us, That if it be eaten boiled, it is an effectual Remedy for such as are troubled with a continued Cough, and who breed thick Humours in their Chest; to which I do willingly assent, for as *Pliny* rightly observes, boiled *Radish* sweetens, and may supply the Place of *Naveus*. *Doleus* prescribes the Juice of *Radish* prepared with Sugar to be drunk by Children who have a Cough or an Asthma. *Lib. 5. c. 4. §. 18.*

Domestick or Garden *Radish*, says *Fernelius*, purges by Vomit without any the least Harm or Offence, and gently clears the Stomach; and cannot disoblige any Age, nor even Women with Child. In order to this, you must shred two Ounces of the Root, and pour Mead upon it, and the Juice which you press from this is to be administred warm: Or three Drams of the Seeds bruised, which is yet more effectual, pouring on it either Mead, Whey, or Barley Water.

Schwenckfeldt acquaints us, That it is common to tie the Root bruised, with Salt, under the Soles of the Feet, in malignant Fevers.

Radish Water drunk for thirty or Forty Days successively, Evening and Morning, to the Quantity of three or four Ounces each Time, cures the Stone, and is good for the Dropsy.

For the Stone, Take of the Juice of *Radish* Root four Ounces, of Honey half an Ounce, make them into a Potion, to be repeated for three or four Mornings. This is a very much approved Remedy. Or, Take of the Root of *Radish* cut into Slices a sufficient Quantity, and as much Honey as is necessary that they may boil over a slow Fire; from thence will flow a Water, four Ounces of which given for a Dose will produce a wonderful Effect. *Chesneau*. These two Receipts were transmitted, amongst many others collected from various Authors, to Mr. Ray, by his very ingenious and learned Friend Dr. Edw. Hulse; as was the following for Nephritick Affections.

Take of the biting Bark or Skin of *Radish* one Ounce, of the Stones of *Medlar* two Drams; infuse them for eight Hours in four Ounces of white Wine, and let it be drunk moderately warm. This is what they call *Secretum Raphaninum*. *Ex Corbei Pharmacia, autore Antonio Mizaldo multis probatum experimentis.*

Radish, says *Lemery*, contains abundance of essential or volatile Salt and Phlegm, and a little Oil. Its Root, says he, is incisive, deterfive, aperitive, and is proper for the Stone, for the Nephritick Cholick, for the Retention of Urine and of the Terms, for the Jaundice, for Obstructions of the Spleen and Midriff, for the Scurvy, and for the Dropsy, taken inwardly. The Seed is likewise opening; but if it be taken into the Mouth alone, it raises a Nausea or Loathing. Some Authors have ranked it amongst weak Emeticks; the Dose from half a Dram to two Drams.

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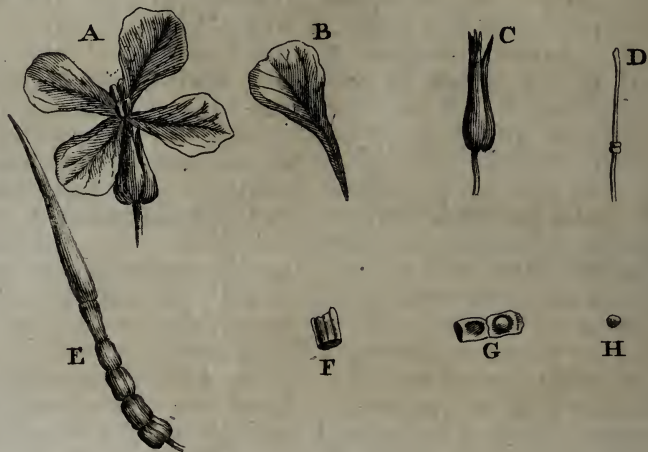
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Raphanistrum.

Fig. 1.



Hypecoon.

Fig. 2.



S E C T. VII.

Of Herbs with a Cross Flower, whose Pointal turns to a jointed Pod.

TABLE CXVI. Fig. 1.

GENUS I.

Raphanistrum.

Raphanistrum is a Plant with a Cross Flower A, consisting of four Leaves B: Out of whose Flower-cup C, rises the Pointal D, which afterwards turns to a Fruit or jointed Pod E, resembling a wreathed Pillar, and full of roundish Seed H, shut up in each Joint F G.

The Species of Raphanistrum are,

1. Raphanistrum filiqua glabra, majore & minore. *Mor. Hist. Oxon. Part. 2. 265. Rapistrum alterum arborum. Park. Theat. 863. Rapistrum flore albo, striato. Sinapi agrette, album Trago. f. B. 2. 851. White-flowered Charlock, with a jointed Pod.* This is the *Raphanus sylvestris* of Gerarde.

This Plant shoots up with a Stalk a Foot high, branched from the very Root, and garnished with small, hard, and sharp Prickles: The lower Leaves are jagged, but the upper ones are entire, large and hairy. The Flowers consist of four Leaves in Form of a Cross, white striped with blue, and supported by a reddish Flower-cup. When this Flower decays, it is succeeded by a Fruit as long as one's little Finger, and resembling a wreath'd Pillar, composed of several Pieces joined together End to End, and containing each of them a pretty big Seed, almost round and red. The Root is sometimes single, and sometimes divided, ligneous, and white. This Plant grows among Corn every where in great Plenty.

2. Raphanistrum flore albo, striato, filiqua articulata, striata, minore. *Mor. Hist. Oxon.*

Part. 2. 266. Rapistrum album, articulatum. Park. Theat. 863. White jointed Charlock.

This Species grows up with fewer, smaller, and rougher Leaves, in some little or nothing, in others more jagged. The Stalks are rougher and lower than the former; and the Flowers do not grow in such Numbers together, neither are they so large or yellow, but either pale yellow, or more inclining to white; after which come smaller, rough Pods with Joints or Divisions, and with smaller brownish Seed, not near so fiery hot as the other. The Root is small and long in some, in others pretty thick and rounder, much like a small long-rooted Turnep. Of this Sort some are found also with a purplish Flower.

3. Raphanistrum arvense, flore albo. *Lampfana Casalp. 355. Rapistrum flore albo, Erucae foliis. Lob. Icon. 199.*

4. Raphanistrum segetum, flore luteo vel pallido. Rapistrum flore luteo, filiqua glabra, articulata. *Raii Hist. 805. Yellow-flowered Charlock, with a smooth jointed Pod.*

This Species differs from the First, chiefly in the Colour of the Flower, and is found as frequently among the Corn as that.

5. Raphanistrum filiqua articulata, striata, maxima. *Mor. Hist. Oxon. Part. 2. 866. Raphanistrum, with a very large jointed, and striped Pod.*

It does not differ from the common white *Raphanistrum*, except in the Bigness of the Flowers and Pods, which last do more resemble those of common Garden Radish, in their spongy Substance. The Seeds contained in the Joints or Knots are bigger.

6. Raphanistrum filiqua articulata, glabra, Constantinopolitanum, flore obsolete purpurascens. Constantinopolitan Raphanistrum, with a smooth jointed Pod, and a rusty purplish Flower.

7. Rapha-

7. *Raphanistrum Creticum*, filiqua incurva, villosa. Candy *Raphanistrum*, with a crooked hairy Pod. *Eruca maritima, Cretica, filiqua articulata*. C. B. Prodr. 40.

The whole Plant is white, having short narrow Leaves at the Root, divided into small Jaggs and rough. It has small, bending, channelled Stalks a Palm high; and many crooked, jointed Pods, three or four Inches long, and rough, containing small reddish Seed.

8. *Raphanistrum Alepicum*, flore dilute violaceo. *Raphanistrum* of Aleppo, with a faint violet-coloured Flower. *Eruca Chalepensis, flore dilute violaceo, filiquis articulatis*. Mor. Hist. Parr. 1. 233.

Raphanistrum is so called from *Raphanus*, because it has something of the wild Radish.

This Plant contains abundance of essential Salt and Oil. It is opening, attenuating, resolving and cleansing.

TABLE CXVI. Fig. 2.

GENUS II.

Hypecoon.

H*Hypecoon* is a Plant with a Cross Flower A, consisting of four Leaves commonly divided into three Parts B C D: Out of whose Flower-cup E, rises the Pointal F, which afterwards turns to a Fruit G, or a plain smooth jointed Pod, full of Seed which is commonly shaped like a Kidney K, and shut up in each Joint H I.

The Species of *Hypecoon* are,

1. *Hypecoon latiore folio*. Broad-leaved *Hypecoon*. *Hypecoum filiquosum*. J. B. 2. 899. *Hypecoum*. C. B. Pin. 172. *Hypecoon*. Dod. Pempt. 449.

This Plant shoots up with several Stalks a Foot high, dividing themselves towards the Top into several Wings or Branches: Its Leaves are like the Leaves of wild Sage, or rather like those of *Fumitory*. The Flower is small, having four Leaves disposed like a Cross, of a yellow Colour, and fastned to a Foot-stalk. When this Flower is decayed

there appears a flat Pod or Husk shaped like a Hook, composed of several Pieces joined together End to End, and each of them containing a Seed which generally resembles a Kidney, and of a blackish Colour. The Root is long, sometimes single, and sometimes divided, reddish, and garnished with small Fibres.

It grows in the South of France, not far from *Montpelier*, on the Brink of a Pool near the Baths of *Balleruque*, before the Chappel and elsewhere. It grows in great Plenty in Spain, in the Fields about *Salamanca*, and those about *Granada*, &c. Mr. Ray found it on that small Neck of Land which lies betwixt the Port of *Messina*, and the Straights of *Sicily*.

2. *Hypecoon tenuiore flore*. *Hypecoon* with a smaller Leaf. *Hypecoi altera Species*. C. B. Pin. 172. *Aterum Dioscoridis Cuminum, sylvestre, filiquosum*. Lob. Icon. 473.

This is a small beautiful Plant, but little known; which shoots up with little slender and tender Stalks, which bear small Leaves resembling Carvy Leaves, and deeply jagged. The Flowers are yellow like the former, but smaller; to these succeed Pods shaped allo like Hooks, composed of several Pieces joined together, each of which contain a yellow Seed. The Root is slender.

The Taste of both these Species is unpleasant like that of Poppy, and both *Dioscorides* and *Galen* agree, that this Plant has much the same Virtue and Qualities with Poppy. Dr. *Hermans* observed by Experience, That the Juice of *Hypecoon* had the same Effect as *Opium*.

Mr. *Lemery* tells us, That both Species grow in hot Countries, such as *Languedock* near *Montpelier*, near the Baths of *Balleruque*, and in the Fields in Spain, and that they contain abundance of Oil and Salt.

Besides the two Species already mentioned, Mr. *Tournefort* found two more in the East, which we had almost forgot to insert.

1. *Hypecoon orientale, latiore folio, flore magno*. Oriental *Hypecoon*, with a broader Leaf, and a large flower.

2. *Hypecoon orientale, Fumariæ folio*. Oriental *Hypecoon*, with a *Fumitory* Leaf.



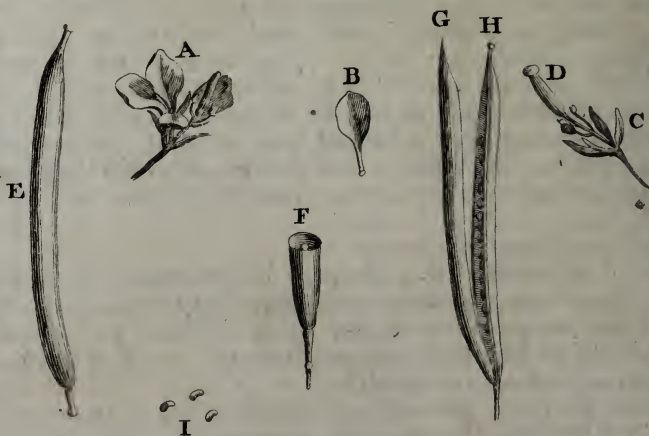
Chelidonium. Celandine.

Fig. 1.



Sinapisrum.

Fig. 2.



S E C T. VIII.

Of Herbs with a Cross Flower, whose Pointal turns to a Pod with one Chest or Cell.

TABLE CXVII. Fig. 1.

GENUS I.

Chelidonium, Celandine.

Celandine is a Plant with a Cross Flower A, consisting of four Leaves B: Out of whose Flower-cup C, rises the Pointal D, which afterwards turns to a Fruit or Pod E, of one Cell, (the Valves F, adhering to the Window G) and full of Seeds which are generally roundish H.

The Species of Celandine are,

1. *Chelidonium majus, vulgare.* C. B. Pin. 144. The greater common Celandine. *Chelidonia.* J. B. 2. 482. *Chelidonium majus.* Dod. Pempt. 48.

This Plant shoots up with several Stalks a Foot and a half high, slender, round, knotted, branched, and somewhat hairy. The Leaves do in some Sort resemble the Leaves of Columbine, or Garden Ranunculus, but are larger, tenderer, and smoother, cut in and denied round the Edges, several of them being ranged upon one Rib, which is terminated by one odd Leaf, of a Sea green Colour. Each of the Flowers is composed of four yellow Leaves disposed in Form of a Cross; and they are followed by little Pods that resemble small Horns, which are full of Seeds that are almost round, as big as Poppy Seed, and yellowish. The Root is as thick as one's Finger, and furnished with Fibres. The whole Plant is full of a yellow Saffron Juice, of a strong Smell and of an acrid and bitter Taste.

It grows in Hedges, in the Clefts and Holes of Walls of old Buildings. It flowers in the Month of April, and continues to most Part of the Summer.

2. *Chelidonium majus, foliis quernis.* The greater Celandine, with Daken Leaves. *Chelidonium folio laciniato.* J. B. 2. 483. *Chelidonium majus, laciniato folio.* Clus. Hist. 203.

Whoever knows the great common Celandine, will easily know this Variety of it as soon as it offers it self; for they resemble one another in every Thing; only the Leaves of this are smaller, the Divisions slenderer, and more curious round the Edges: The Leaves of the Flowers are likewise cut in with some Jaggs, and as it were fringed; much resembling the Flowers of that Plant, which is by some called *Cuminum siliquosum* & *Hypercoun*.

3. *Chelidonium majus, foliis quernis, variegatis.* H. R. Par. The greater Celandine, with Daken variegated Leaves.

4. *Chelidonium majus folius & flore minutissimis laciniatis.* H. R. Par. The greater Celandine, with Leaves and Flower very finely jagged. *Othona di Dioscoride, chianata d'alcuni* *Celidonia Indiana*.

This Celandine has a pretty thick Root, shooting down two Fingers Length of an equal Thickness, somewhat rugged, curled, of a Substance moderately hard, then growing smaller, and spreading quite around into several Branches and smaller Fibres, of a reddish yellow Colour both without and within, like the greater Celandine, and of a biting and drying Taste. From its Head rises a Tuft of Leaves standing upon pretty long hollow Foot-stalks, furrowed on the upper Part by a little Channel that runs lengthwise, with a roundish Rib on the opposite Side raised on the lower Part, from whence the Foot-stalks become in some Sort triangular. The Leaves are branched into smaller or larger Branches, into which they are divided and subdivided, pretty much like the Leaves of

Rock-rose, but are of a roundish Figure, so that they do more resemble the *Geranium primum* of *Matthioli*, tender, flaccid, Juicy, hairy, with thick-set Nerves pretty much raised, and variously wandering, some of them being straight, and others bending and winding, running out to the very Edges on all Sides, turning upwards, from whence they are rough to the Touch, partly by Reason of the Hairs, and partly by Reason of the fore-said Nerves, which on the upper Part appear depressed into so many small Furrows of a bright Colour, and surrounded with Teeth, some smaller and some greater, some sharp and some roundish at the Point, and placed in no Manner of Order. The Divisions of the Leaves are very irregular; for some of them are so deep that they reach to the middle Rib. From the Middle of the Turf of Leaves rises a Stalk, sometimes one and sometimes more, according to the Bigness of the Root, very rough and hairy, especially on the under Parr, round, hollow from Knot to Knot, rough and yielding, divided by thick tuberos Knots, tender, succulent, and when broken or cut dropping a yellow Juice like the greater *Celandine*, divided and subdivided into Branches, which sustain on their Tops some oblong, narrow, sharp Leaves, placed in the Form of a Star; out of the Middle of which grow up some small oblong Foot-stalks, each of them sustaining a Flower consisting of four Leaves, inclosed in a Flower-cup composed of four oval Leaves; the Leaves of the Flowers being variously cut and jagged, the Jaggs reaching to the very Nails, of a yellow Colour, with many little yellow *Stamina* in the Middle, spreading around, and supporting yellow Chives also; so that this Flower seems in some Sort to represent a small *Anemone* Flower. When the Flowers fall the Pods succeed them, some long and some short, some streight and some crooked, at first green, but afterwards yellowish when ripe, and full of blackish Seeds, that are very like the Seeds of the greater *Celandines*, having on one Part an Eye as it were a Pupilla or Apple of an Eye, from whence they send out a little Crest of a whitish yellow Colour.

5. *Chelidonium maximum*, *Canadense*, *Knautdr. Corn.* 312. The greatest *Celandine* of Canada, without a Stalk.

This notable Plant consists of few Leaves, deriving their Original from the Root upon long Foot-stalks, large, round, and of a greyish green Colour, and jagged after the Manner of *Vine* Leaves. It has a fleshy Root full of a yellow or golden Juice smelling rank, as are the Leaves; if any Part of it be broken, presently the said Juice flows out. Immediately from the Root rises a short, slender, reddish Foot-stalk, supporting a white Flower, composed of a great many Leaves like the Flower of *Cyclamen*. When the Flower decays, it is succeeded by a Pod that has two Cells, thicker or thinner, without a middle Partition, and containing many Seeds that are larger than the Seeds of our greater *Celandine*.

This is an *American* Plant, and grows in *Virginia* and *Canada*. Mr. Ray is of opinion, That it ought rather to be ranked amongst the *anomalous siliquous* or Pod-bearing Plants, than among the *Celandines*.

Chelidonium and *Chelidonia* come from the Greek Word *χελιδων* a Swallow, as if one should say, *Swallows Herb* or *Swallow-wort*. It is thought to have obtained this Name, as *Dioscorides* says, because it begins to appear at the first coming of the Swallows, and withers about the Time of their going away. There are some Writers who have related, That if any young Swallows become blind, the Mother cures that Blindness, and so restores her young One to Sight, only by putting this Herb to it's Eyes.

The Leaves, Flowers and Root are used in Physick. This Plant warms and dries, cleanses powerfully, and attenuates, is of an acrid and bitter Taste, carries off Bile by Stool and Urine, and sharpens the Sight: And therefore it does good Service in the Jaundice, and removes Obstructions in the Liver, Spleen, and Ureters. The Root is esteemed alexipharmack, or an Antidote against Poison. Applied externally it cures Weakness in the Eyes, Ulcers and other such like Diseases; upon which Account there are some who put to their Eyes the yellow Juice, which flows from the broken Stalk. Some likewise put it to the Soles of the Feet, in order to cure the Jaundice. The Preparations made from this Plant are, an Extract, Water distilled from the Herb and Flowers, and Salt from the Ashes. *Schrod.*

By Reason of its absterfve and incisive Vertue, it conduces towards extirpating various Distempers incident to humane Bodies, but especially the Jaupdice, Scurvy and Cachexy, nay, and even the Plague it self; and the Juice of it drunk with warm Beer has never been administred without extraordinary Success: In the Plague it is used with Vinegar. There may be a Panacea made of it, if you take as much of this Plant as you think fit, and bruise it, and after having kept it in a Cellar for several Days, press it till the Juice be all squeezed out; this Juice is to be clarified and brought to the Consistence of Honey; to which you must add a proper Alkali, and then put it by for Use. From this, mixed with Vinegar, is distilled *Acetum alexipharmacum*, to be taken as a Preservative against the Plague. The Water of this distilled in the Spring by many Cohobations upon the green Herb, cures Wounds and Ulcers in the Eyes.

Tragus says, That a large Handful of the Root washed, boiled in a Quart of *Rose* Vinegar, and then strained, adding thereto an Ounce and a half of *Theriack*, and drunk to the Quantity of a good Glass-full, will, by the Attestation of certain Experience, cure such as are infected with the Plague, if after they have drunk it they go to Rest in Bed and sweat after it. The distilled Water put into the Eyes, corrects the red Spots in them, as also those on the Face, if it be washed therewith: The same drunk for several Days opens the obstructed Passages of the Liver, and cures the King's Evil. The Powder of the dried Herb strewed upon Ulcers and Wounds purges and cures them.

The Juice of the Herb anointed on *St. Anthony's Fire*, effectually restrains and heals it. *Rondeletius* says, That the bruised Herb with Hogs Lard consumes Warts. *Zacutus* experienced this often.

Lobel is of Opinion, That *Celandine* is not to be taken inwardly but very rarely; but that it is more commodiously and safely applied outwardly for Ring-worms and Scabs in Children. We are ready to subscribe to *Lobel's* Advice, by Reason of the Acrimony of this Plant: And therefore we agree with *J. Bauhinus* and others, that the Juice, which

is very acrid, is not to be applied in the Diseases of the Eyes, unless it be mixed with such Things as will blunt the Edge of its Acrimony, such as Womens Milk is said to be.

A great Quantity of the Juice of this Plant goes into the Composition of the Water which is called *Aqua mirabilis*.

Dr. Tancred Robinson informed *Mr. Ray*, That the greater *Celandine* was extremely celebrated for curing of Consumptions, and that it was the great Specifick of *Dr. Garneiers de tabe Anglica*; and said, that *Simon Pauli* affirmed the same Thing. *Quadrupartit. Botan. p. 46.*

Celandine, says *Mr. Lemery*, contains abundance of essential Salt and Oil. It is cutting, cleansing, drying, and resolving; it opens the Belly, provokes Urine, sharpens the Sight, and is proper for the Obstructions of the Liver, of the Spleen, and of the Ureters. The Root is accounted good to resist Poisons: The Juice of *Celandine* is used to extirpate Warts, Ring-worms, and Itch, being applied outwardly.

Mr. Tournefort's Account of this Plant is as follows: *Dioscorides* relates, That it was believed in his Time, that by the Application of *Celandine* the Swallows restored Sight to their young Ones, after their Eyes had been put out: *Aristotle* was of the same Opinion: but *Celsus* had Reason to refuse this Error; for Experience shews us, that in less than an Hour's Time an Animal will see very well, tho' the Horn of the Eye has been pierced till several Drops of the aqueous Humour came out. *Celandine* is bitter, acrid, and burning, but especially the Root, which yields more Orange-coloured Juice than the other Parts of the Plant. It reddens blue Paper but very slightly, and smells like rotten Eggs; which gives us Reason to believe that it is phagedænick, (i. e. proper for eating and consuming the proud Flesh about any Sore or Ulcer) in some Sort like the Liquor that results from the Mixture of the Solution of Sublimate and Lime-water, or of the Nature of Milk boiled with some sharp Salt. By a Chymical Analysis, *Celandine* yields a good deal of volatile as well as of fixed Salt; but then this is wrapt up in abundance of Sulphur and Earth. This Plant taken in-

wardly is very aperitive : The Infusion of a Pugil of its Leaves macerated cold for a whole Night in a Glals of Whey, with a Dram of Cream of *Tartar*, is a good Remedy for the Jaundice, and for the Green-sickness, some add to it an Ounce of the Syrup of *Succory*. For the Dropsy, they infuse, for four and twenty Hours, an Ounce of the Juice of *Celandine*, and half an Ounce of the Tincture of *Mars*, in a Quart of white Wine; they strain the Infusion through a Linnen Cloth, and give three Ounces of it twice a Day to the Patient. The following Preparation is very good for the Vapours, and for the Disease of the Lungs which in *England* is called the Consumption : You must put in Digestion, for the Space of eight Days, twelve Pounds of the whole Plant gently bruised, three Dozen of River Lobsters minced small, and two Pounds of Honey; you must lute the Alembick, and distill those Ingredients in *Balneo Mariae* : The Water drawn from thence is excellent for the Vapours, being drunk from two to four Ounces : It cures the Inflammation of the Eyes, and dries up the Ulcers in those Parts, as well as the Juice of *Celandine* tempered with Milk : It is applied without Milk to Pearls or Webs on the Eyes, in order to eat them. *Julian Paulmier*, a famous Physician of the Faculty of *Paris*, made great Account of the Juice of the Root of this Plant in the Plague, in these Words; *Succus radices Chelidonii majoris ex vino albo, & aceti rosacei momento expressus, nonnullis presentaneum auxilium attulit, & virus sudore foras expulit.*

TABLE CXVII. Fig. 2.

GENUS II.

*Sinapis*trum.

*Sinapis*trum is a Plant with a Cross Flower A, consisting of four Leaves B : Out of whole Flower-cup C, rises the Pointal D, which afterwards turns to a Fruit or Cylindrical Pod E, with two Valves G H, and full of Seeds F, which are generally roundish I.

The Species of *Sinapis*trum are,

1. *Sinapis*trum *Aegyptiacum*, heptaphyllum, flore carneo, majus, spibosum. *H. L. Bat.* The greater, prickly, seven-leav'd, Egyptian *Sinapis*trum, with a flesh-coloured Flower. *Pentaphyllum peregrinum, fliquosum, bivalve, majus.* *Mor. Hist. Oxon. Part. 2. 288. Lupinus Aegyptius, sylvestris.* Vestling, in *P. Alpin.* 70.

This Plant has many Leaves spreading upon the Ground, resting upon long Foot-stalks, viz. five soft Leaves meeting in the same Center, i. e. on the Top of the Foot-stalk like the *Cinquefoils*. Out of the Middle of these rises a Foot-stalk a Foot or half a Yard high, which is divided into other little Branches, and is round, straight, slender, and all over soft, clothed with little *Trefoil* thicker Leaves from Top to Bottom; but the lower ones are larger and consist of five Leaves, which rest upon pretty long Foot-stalks; and the upper ones consist of three Leaves, and rest upon very short Foot-stalks. On the upper Wings of the Stalk appear many long and equal Foot-stalks in Fashion of an Umbell, on each of which stand four small, white, long Leaves out of a Husk, which are pretty slender at their Rise, but at the Point representing the Form of *Fennel-giant* or *Parasnip* Seed, of a faint Smell, and constituting a white Flower, with five or six *Stamina* an Inch long and blackish. To each of which succeeds a single Pod of two Valves, an Inch long, pretty thick in proportion to the Bulk of the Plant (no intermediate Membrane dividing the Pod into Cells lengthwise) and full of numberless, round, and very small Seeds.

It flowers the whole Summer, and when the Flowers fade, there remain thick Pods an Inch long. The Plant is annual; sowing it self in the Autumn, it springs up in the Beginning of Summer, and produces ripe Seed about the End of Summer or Beginning of Autumn.

It was raised from Seed sent hither from *Aleppo*.

2. *Sinapis*trum *Indicum*, pentaphyllum, flore carneo, minus, non spinosum. *H. L. Bat.* The smaller, five-leav'd, Indian *Sinapis*trum, not prickly, with a flesh-coloured

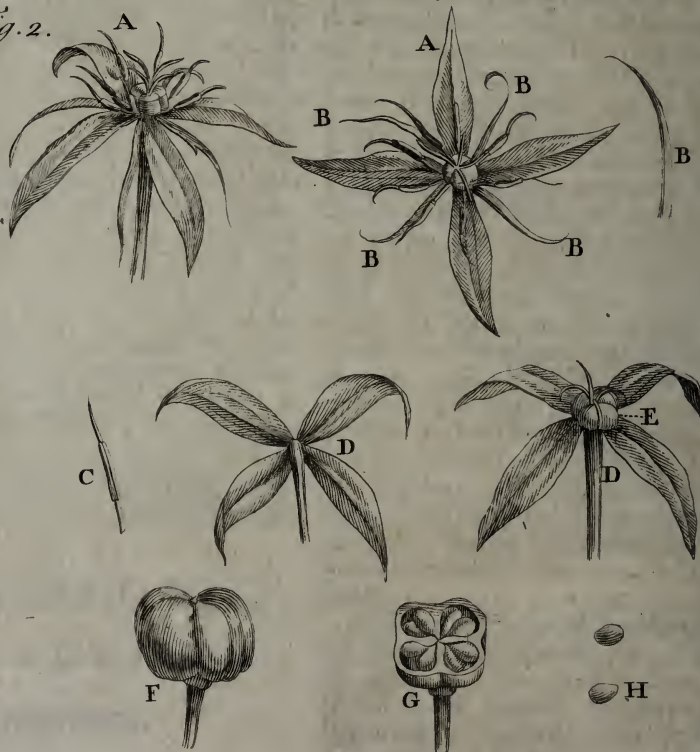
Epimedium. *Barren-wort.*

Fig. 1



Herba Paris. *Herb Paris, or True-love.*

Fig. 2.



loured Flower. *Pentaphyllum peregrinum, siliquosum, bivalve, minus.* Mor. Hist. Oxon. Part. 2. 288. *Quinefesilium siliquosum.* P. Alp. Exot. 322.

3. *Sinapistrum Indicum, triphyllum, flore carneo, non spinosum.* H. L. Bar. Indian three-leav'd *Sinapistrum*, not prickly, with a flesh-coloured Flower.

It has a Root four or five Inches long, small and white, and drawing its Nourishment from its lateral Fibres, of which it is furnished with a great many. The Stalk is two Foot high, round, upright, not branched, cloathed with a few thin-set Leaves, ranged in no Order, growing always in Threes, on one Foot-stalk an Inch long. The Top of the Stalk runs out into a Spike of four-leav'd Flowers, resting upon Foot-stalks half an Inch long, consisting of white Leaves, defending the oblong purple *Stamina*, with a Pointal in the Middle of the same Length and Colour, but thicker, as in the *Heptaphyllum siliquosum*. To these succeed Pods three Inches long, small, round, green, ending in a sharp Point, and exactly like the Pods of the first Species.

It grows on the Banks of the River *Cobra*, near the Town of *St. Fago de la Vega*, and in a Place called *Guana-ba*, near Dr. Cope's House.

4. *Sinapistrum Americanum, frutescens, triphyllum, Nasturtii sapore.* Plum. Three-leav'd, shrub, American *Sinapistrum*, tasting like Cress.

5. *Sinapistrum Lusitanicum, triphyllum, flore rubro, siliquis corniculatis.* Three-leav'd Portuguese *Sinapistrum*, with a red Flower, and corniculated Pods. *Trifolium Lusitanicum, bivalve, flore rubro.* Mor. Hist. Oxon. Part. 2. 289. *Trifolium Lusitanicum, corniculatum, flore rubro.* Park. Theat. 1103 and 1684.

This horned Portuguese *Sinapistrum* has several long and narrow Leaves, three set together, lying on the Ground; and so likewise are the lowermost on the Stalks that rise about a Cubit high; with others above standing either single or two together, very narrow and long: The Flowers grow at the Tops of the Stalks and Branches, one at a Place, on a short Foot-stalk, composed of four Leaves of a deep red Colour, with the Shew of a little Horn in the Middle, which

growing bigger, the Flower oftentimes remains at the Foot of the Horn for a good while, which falling away at last, and the Pod growing ripe, it contains within it very small brownish Seed. The Root is slender, and perishes; but by the Seed that it sheds, the Plant is renewed every Year.

6. *Sinapistrum orientale, triphyllum, Ornihopodii siliquis.* Oriental three-leav'd *Sinapistrum*, with Birds-foot Pods.

TABLE CXVIII. Fig. 2.

GENUS III.

Epimedium, Barren-wort.

Barren-wort is a Plant with a Cross Flower A, consisting of four Leaves B, that are shaped like a Pipe: Out of whose Flower-cup C, rises the Pointal D, which afterwards turns to a Fruit or Pod E, having but one Chest, and two Valves F, and full of Seeds.

The Species of *Barren-wort* are,

I. *Epimedium.* Dod. Pempt. 599. *Barren-wort.* *Epimedium quorundam.* J. B. 2. 395.

The Root shoots down obliquely, nor does it dive deep, and is slender, creeping and propagating it self far and wide under Ground. From hence rise small, smooth, and stiff Foot-stalks, nine Inches long, and sometimes above a Cubit high, divided into three Sprigs or Shoots, each of which is again divided into other three Shoots, so that upon each of them stands an Ivy Leaf, almost round, stiff, sharp-pointed, full of Nerves, grey on the under Side, and of a pale green Colour on the upper Side, having two Wings at the Foot-stalk, one of them longer than the other, dented with gentle Dents quite round, thin, and as it were membranous. There is a singular Sort of a Branch which comes forth a little below the first Division of the Branches, a Palm or nine Inches long, divided again into Branches, each of which bears several (generally three) Flowers, standing upon their own hairy Foot-stalks, of a singular Structure, so that they appear to be cut only into four Segments, whereas they are really composed of eight Leaves: For to the outer

Leaves, which are broader and reddish, but of a yellowish red on the Outside, and striped with white Lines, do strictly adhere smaller yellow inner Leaves; and therefore the Borders of the outer Leaves showing themselves quite round, the Flower appears four-leav'd to a negligent Viewer, with yellow Borders in the Middle: The Middle of the Flower is likewise possessed by yellow Chives. To the Flowers succeed small, oblong, horned Pods containing flat reddish Seeds.

Casalpinus writes, That it grows on the Mountains of *Liguria*. Both the *Bauhins* say, That it grows on the Mountains in the Territory of *Marca Trevisana*, betwixt the Bath of *Aponus* and *Arqua* in *Romania*, in moist and shady Places: And Mr. *Ray* says he saw it on the Mountains not far from *Ponteba*, which parts the *Venetian* and *Imperial* Territories; from whence it appears to be a Native of Hills and Mountains. It flowers in *April*, or later in cold Countries. When it is transplanted to Gardens, it is requisite to restrain it, because of its very creeping Roots.

2. *Epimedium orientale*, flore ex albo flavescente. Oriental *Warrenwort*, with a whitish yellow Flower.

3. *Epimedium orientale*, flore albo. Oriental *Warrenwort*, with a white Flower.

Epimedium is thought to be thus called from ἐπι and Μῦδιον, i. e. *supra triphyllum*, as if you should say, Great *Trefoil*, because this Plant has large Leaves, disposed in Threes.

It is not yet agreed amongst *Botanists* what Plant is the true *Epimedium* of *Dioscorides* and *Pliny*; you may see the different Opinions in *J. Bodeaus à Stapel's Commentary upon Theophrastus*, and in our *Parkinson*.

As to its Vertues I don't find any Account of them in any Author; for what the Antients have written of *Epimedium* is as uncertain whether it belongs to this Plant, as it is whether this is the same with their *Epimedium*: Only *Lemery* tells us in two Words, That it is moistening and refreshing.

S E C T. IX.

Of Plants with a Cross Flower, whose Pointal turns to a soft Fruit.

TABLE CXVIII. Fig. 2.

GENUS. I.

Herba Paris, Herb Paris, *True-lobe*, or *One-berry*.

Herb *True-lobe* is a Plant with a Cross Flower A, consisting of four Leaves B, and generally furnished with as many *Stamina* C: Out of the Flower-cup D, rises the Pointal E, which afterwards turns to a soft Fruit F, which is almost globular, and divided into four Cells G, and full of Seeds H, which are commonly oblong,

The Species of Herb *True-lobe* are,

1. *Herba Paris*. *Ded. Pempt.* 444. *Herb True-lobe*. *Solanum quadrifolium bacciferum*. C. B. Pin. 167.

This Plant has a small, jointed, and creeping Root; a Stalk moderately thick, round, solid, two Palms high, reddish towards the Root, and green above. Two Fingers below the Top of the Stalk are set four Leaves, rarely five, broad, from a narrow Bottom, ending in a Point, rugged and full of Nerves, even on the Edges, shining underneath, but above not so. The Flower is single in a Husk shaped like a Pike, consisting of four pointed, pretty broad, greenish Leaves; between every two of which grows a very thin

thin and very sharp-pointed small Leaf of the same Colour. The *Stamina* in every Flower are eight in Number, long, sharp, green, and covered with yellow or whitish Furniture. In the Middle lurks a little sessile Berry, which is quadrangular, and sometimes pentagonal, of a black purple Colour; out of whose Navel peep four Filaments or Threads, of the same Colour with it. There is a great Number of small white Seeds contained in the Berry, about the Bigness of Poppy or *Amaranthus* Seed. The Smell is nafty and disagreeable.

J. Bauhinus has justly observed, That it is found in a fat and fruitful Soil in the Shades of Mountrains, Woods, Valleys and shrubby Places, and consequently in any other shady Places.

It peeps above Ground in the Month of April, and produces a ripe Berry in May or June.

2. *Herba Paris orientalis, foliis denis vel duodenis angustioribus, radiatim positis.* Oriental Herb True-love, with ten or twelve narrow Leaves placed in the Form of a Star.

The *Herb Paris* has not been mentioned by any antient either Greek or Latin Writer, so far as we can find: And therefore it has gone by several Names with several modern Authors, every one following his own Judgment or Fancy. For tho' *Matthioli*, *Casalpinus*, *Anguillara*, *Camerarius*, *Dodonaeus* and *Lugdunensis* do call it *Herba Paris*, as it is now generally termed by all Botanists; yet before them *Fuchsius* took it to be *Aconitum Pardalianches*, and to be deadly, or at least dangerous; but is herein contradicted by *Matthioli*; and *Cordus* in his History of Plants seems to be of the same Opinion with *Fuchsius*, calling it *Aconitum Pardalianches Monococcon*. Some called it *Uva versa*. *Tragus* not knowing any Latin Name by which others called it, gave it the Name of *Aster*, from his own Country People, who called it *Sternkraut*, but to this he adds *non Atticus*, to distinguish it from the *Aster Atticus* of *Dioscوريدes*: He also calls it *Uva lupina*, after the German Word *Woolf-beer*.

The Berries of this Plant are mostly in use. Both the Leaves and the Berries cool and dry. The internal Use of the Berries is Alexipharmack in the Plague, in contagious

Diseases, and in Poisons taken inwardly (*E. G.* in *Arsenick*.) The outward or external Use of the Leaves is in Plague Sores, and other hot Tumours, in Felons or Whitlows, and in inveterate Ulcers. *Schrod.*

I cannot help wondering, why other Things that cool and dry, are not also Alexipharmack as well as these Berries. The Berries are to be gathered when the Sun is in *Gemini*, before Sun-rising. These Berries, to the Number of five or nine, powdered and taken with the Water of Lime Flowers are commended in the Falling-sickness; and half a Dram of this is thought to relieve the Epileptick, and others who are become foolish either through the Length of the Disease or from Witchcraft. From them is extracted a very red Tincture either with the Spirit of Wine or with the Spirit of Salt. This is an Ingredient in my Tincture of *Bezoar*. *Hoffman.*

J. Bauhinus says, That it is deservedly controverted whether it be safe to apply Narcotics in pestilential Diseases. *C. Hoffman* appeals to sure and certain Experience. *Matthioli* commends it against Witchcrafts, and says he has known several who had become half Fools by Witchcraft, that were perfectly restored to their former Health by taking a Dram Weight of the Seed of this Plant for twenty Days successively. But we are of Opinion, That they are not only half Fools but altogether Fools, who can believe that Witchcrafts (if they are any Thing but Poisons) can be cured either by Herbs, Words, or such-like Charms. We can see no Reason why Herbs may not correct and cure Diseases, which malicious Creatures have caused by corrupting the Humours of the Body. That Witches were accounted Poisoners, and that their very Designation *Venefica* in the Roman Law imports so much, may be clearly made out from several Passages in the *Corpus juris civilis*: And that pious Priests took Occasion from the wicked Pranks of old Women to set up their profitable Office of Exorcising the Devil and other imaginary Possessionists, when there was in Reality no other Devil in the Person possessed but an obstinate or a rare Disease, is as evident from innumerable Instances. But the civilized Part of the World in our Age, blessed be God, is happily delivered from the dreadful

Apprehensions of Magick and Incantation, Witchcraft and Devilry; and no one gives any Credit to such Stories but old Women, old Fools, and old Cheats.

Tho' some did formerly account this Herb to be not only dangerous but deadly, because of the Resemblance it bears to the *Aconites*, yet they have not set down any ill Symptoms that it produced; and therefore *Pena* and *Lobel*, in order the better to discover the Qualities of it, made several Trials of it upon Dogs and other Creatures; and found by repeated Experiments that it did them no manner of Harm. To carry their Observations farther, they gave *Arsenick* and *Sublimate*, of each half a Dram, to a Dog; and about an Hour after his taking it, when his furious and foaming Fits were over, so that he was ready to expire, they gave him two Drams of the Powder called *Pulvis saxonicus* in red Wine; which immediately recovered him. The Receipt of the Powder is this:

℞ *Radicum Angelicæ sativæ* & *sylvestris*, *Vincetoxici*, *Phu* five *Valeriana majoris*, *Poly-podii quercini*, *Altheæ*, & *Urticæ*, ana unciam

Dimidiam; *Corticis Meserei Germanici*, *Drachmas duas*, *granorum herbæ Paridis*, Numero 24, *foliorum ejusdem cum toto Numero 36*, *ex radicibus cum cortice in aceto maceratis*, *siccatis ut cæteris* & *mixtis fiat omnium pulvis*.

The Powder of the Roots eases the Pains of the Cholick in a Moment, if taken in Wine. The Leaves are very effectual to discuss all Tumours, and to allay all Inflammations very speedily, as also those Tumours that happen on the Cods, Privy-parts, or in the Groin; they cure green Wounds, and cleanse and heal up old putrid Ulcers and Sores. The Juice or distilled Water of the Leaves takes away all Heat and Inflammation in the Eyes. *Park.*

Herb True-love, says Mr. *Lemery*, contains abundance of Oil, Phlegm, and essential Salt. The Berry and Leaves are condensating or thickening, cooling and resolving. The Berry is particularly esteemed in the Plague, and other contagious Diseases, if taken inwardly. The Leaves are applied to pestilential Swellings.

Amaranthus. Flower-gentle.

Fig. 1.



Portulaca. Purslane.

Fig. 2.



The Sixth C L A S S.

Of Herbs and Under-shrubs,

With a Rose-Flower.

THAT is called a Rose-Flower, which is composed of many Leaves placed in a round Figure, after which Manner the Leaves of a *Rose* are exactly and plainly placed, as you may see in *Crow-foot*, *Peony*, and *Cinquefoil*. In this Flower the Ranging of the Leaves, and not the Number of them, is required; for the one is constant, but the other uncertain, as in *Pasque-Flower*, *Houfeleck*, and *Avens*: The Number is rarely two or four, unless in *Inchanter's* *Night-shade*, and *Rosebay Willow-herb*; but often five. If the Number of the Leaves happen to be four, then the Rose-Flower differs from the Cross-Flower, in that the Cross-Flower always consists of four Leaves, whereas the Rose Flower consists sometimes of four, and sometimes of five or six Leaves, as may be observed in *Climber*, *Rue*, and *Capers*, and other Plants. And therefore I was convinced these Genus's might be brought to the Class of Rose-Flowers.

SECT. I.

Of Herbs with a Rose-Flower, whose Pointal turns to a Fruit of one Chest or Cell, that gapes transversely in two Parts.

TABLE CXIX. Fig. 1.

GENUS I.

Amaranthus, Flower-gentle.

Flower-gentle is a Plant with a Rose-Flower A B H, consisting of many Leaves C: Out of the Middle or Center of which rises the Pointal D I, which afterwards turns to a Fruit, or an oval or almost globular Husk E, that gapes transversely in two Parts F K, and is full of Seeds G L, which are commonly roundish.

The Species of Flower-gentle are,

1. *Amaranthus maximus*. C. B. Pin. 120. The greatest Flower-gentle. *Blitum maximum*, sive *Amaranthus major*, semine albo. J. B. 2. 968. *Amaranthus major*, floribus obscuri coloris. Dod. Penupr. 185.

In a rich and favourable Soil it grows to a Man's Height, with a thick, channelled, reddish Stalk, that is crowded with thick-set Branches. The Leaves resemble those of the *Amaranthus purpureus*, but are pointed and larger, of a green purplish Colour, wrinkled and insipid. The Flowers break forth both from the Top of the Stalk and Branches, and also out of the Wings of the Leaves, being ranged into

into thick-set Spikes, a Palm or a Palm and a half, and often a Foot long, and sometimes spreading broadwise like a Mane or Crest, of a sooty Colour, or a faded purple, with yellowish *Stamina*, to which succeed small white Seeds, resembling the Seeds of Millet.

2. *Amaranthus maximus*, paulo humilior, dilutior panicula, & foliis angustioribus. *C. B. Pin.* 121. The greatest Flower-gentle, a little lower, with a fainter Bush, and narrower Leaves.

3. *Amaranthus maximus*, panicula sparsa & longiori. *H. R. Par.* The greatest Flower-gentle, with a long loose Bush.

4. *Amaranthus maximus*, semine rubello, qui granis rubris Petri Cieca. *C. B. Pin.* 121. The greatest Flower-gentle, with red Seed.

5. *Amaranthus maximus*, præcox, semine pallido. *H. R. Par.* The greatest early Flower-gentle, with pale Seed.

6. *Amaranthus sylvestris*, maximus, Novæ Angliæ, totus viridis. *H. R. Par.* The greatest wild New England Flower-gentle of New England, all over green. *Amaranthus sylvestris*, maximus, Novæ Angliæ, spicis viridibus. *Raii Hist.* 201.

7. *Amaranthus sylvestris*, maximus, Novæ Angliæ, spicis purpureis. *Raii Hist.* 201. The greatest wild New England Flower-gentle, with purple Spikes.

8. *Amaranthus sylvestris*, maximus, Novæ Angliæ, spicis carneis. *Raii Hist.* 201. The greatest wild New England Flower-gentle, with flesh-coloured Spikes.

Mr. Ray comprehends all the three last Species under one, which he has described thus :

It has long Spikes, not so thick-set as in the *Amaranthus vulgaris semine albo*, or the first Species : It has smaller shining Seeds, that are black with a dark red Cast : The Leaves are either purple or green, according as the Colour of the Spike is.

This New England *Amaranthus* varies mightily in the Colour of its Spikes, which is sometimes green, sometimes faint, and sometimes faded purple : Nay, the faded or blackish purple is much more frequent than the green.

It renews it self every Year by its falln Seed : And even the hardest Winter will not hurt the Seed, as Mr. Ray found in the Year 1684.

Mr. Ray is of opinion, That it varies also in the Colour of its Seed : For he says, He had it growing in his Garden from the Seed, and that it produced white Seed, tho' it could not be distinguished from that which bore black Seed, either in the Stalk, Leaves or Spikes.

9. *Amaranthus coccineus*, elegans, maximus. *Park. Theat.* 753. The greatest, beautiful, scarlet Flower-gentle.

This Flower-gentle rises up with very great thick, round, tall Stalks, rather higher and bigger than the common greatest Flower-gentle, with as large Leaves on it, or rather larger; but both they and the Stalks are of a fresh yellowish pale green Colour, with very little or no Redness on them at all (and this is one great Mark to know this from the rest before it comes to flower.) The Flowers stand at the Tops of the Stalks and Branches, more spread at the Bottom into sundry Parts, the Middle being longest, and usually, when it is in its Perfection, hanging down like a Tassel, the other Parts like shorter Spikes encompassing it round, which even for the Proportion is very beautiful, but much more for the Colour, which is an excellent bright scarlet, which being gathered in the Prime will hold a good while before it decay, especially if it be kept from Sun and Wind. The Seed inclosed in these Tufts is almost as white and small as that of the first Species; yet having a little more of the Red in it, whereby the Difference may be discerned.

10. *Amaranthus panicula incurva*. *C. B. Pin.* 121. Crested velvet Flower-gentle. *Amaranthus panicula speciosa, cristata*. *J. B.* 2. 969. *Amaranthus holosericeis, sanguineis, reticulatis floribus*. *Lob. Icon.* 252.

Of all the *Amaranthus*'s, says *J. Baubinus*; this Species has the most beautiful Flowers, and is of a mean Size betwixt the *Amaranthus obsoleti coloris*, and that which has a purple silken Spike. It has many Stalks rising from the same Root, which are branched, channelled, and two Cubits high, and covered with Bark which is full of red Juice towards the Root : The Leaves at Distances are somewhat larger than those of the *Amaranthus simplicis spica*, but much narrower than the Leaves of the obsolete Species, from whose Wings, and therefore on the Tops of the Branches, rise shining Flowers which are

not so much spiked, as remarkable for broad crested Bushes or Tufts that are wound and interwoven crosswise like a Ner, with little *Stamina* dyed with a bright purple. Sometimes it bears Tufts or Bushes a Palm long and three Inches broad.

11. *Amaranthus cristatus, rubicundissimo flore. H. R. Par.* Crested Flower-gentle, with a very red Flower.

12. *Amaranthus reticulatus seu corniculatus, serotinus, minor. H. R. Par.* The smaller, late, net-bush'd or horned Flower-gentle.

13. *Amaranthus cramefino colore. Suvert.* Crimson-coloured Flower-gentle.

14. *Amaranthus panicula incurva, lutea.* Flower-gentle with a bending yellow Tuft. *Amaranthus paniculis luteis. H. L. Bat.*

15. *Amaranthus paniculis luteo-pallidis. H. L. Bat.* Flower-gentle with pale yellow Tufts.

16. *Amaranthus paniculis coccineis. H. L. Bat.* Flower-gentle with scarlet Tufts.

17. *Amaranthus paniculis ex fusco purpureiscentibus. H. L. Bat.* Flower-gentle with Tufts of a dusky purple Colour. *Amaranthus panicula multiplici ex fusco purpureascente. H. R. Par.*

18. *Amaranthus paniculis obsoletè violaceis. H. L. Bat.* Flower-gentle with faded violet-coloured Tufts. *Amaranthus panicula multiplici obsoletè violacea. H. R. Par.*

19. *Amaranthus simplici panicula. C. B. Pin. 121.* Single-tufted Flower-gentle. *Amaranthus angustifolius, simplici spicata panicula. Lob. Icon. 251.* *Amaranthus purpureus, J. B. 2. 968.* This is the *Amaranthus purpureus* of Gerarde, and the *Amaranthus purpureus, minor* of Parkinson.

This Species has a thick Root like *Blite*, succulent, and of a whitish red Colour: The Stalk is single, purplish, especially near the Root, channelled, hollow with alternate Wings, and a Cubit or a Cubit and a half high: The Leaves are like those of *Blite*, but sharper, soft and smooth, of a greenish Colour, somewhat reddish about the Edges, and of an insipid Taste. Instead of Flowers come forth Spikes on the Tops of the Stalks and Branches, and out of the Wings of the Leaves, very agreeable to the Sight, but without any Smell, of a shining purple Co-

lour, smooth to the Touch, sometimes single, and sometimes several joined together, which, when bruised, yield Juice much of the same Colour; each Flower is composed of five small Leaves and as many Chives. The Seed when ripe, is black, small, shining, slippery, round and flat.

The Spikes retain their Beauty long after they are gathered, and do not fade or decay for some Years. The Plant is tender, impatient of Winter, and is renewed every Year from its own Seed.

20. *Amaranthus major, paniculis surrectis, coccineis seu phœniceis. Mor. Hist. Oxon. Part. 2. 602.* The greater Flower-gentle, with upright, scarlet or purple-coloured Tufts.

21. *Amaranthus major, paniculis flavescentibus. H. L. Bat.* Great Flower-gentle, with yellowish Tufts.

22. *Amaranthus spicatus, sericeus, flore luteo virefcente. H. R. Par.* Spiked silken Flower-gentle, with a greenish yellow Flower.

23. *Amaranthus spicis carneis, intersusa flavedine micantibus. H. R. Par.* Flower-gentle with flesh-coloured Spikes, shining with Spangles of yellow.

24. *Amaranthus spicatus, æneo colore simul & carneo varius. H. R. Par.* Spiked Flower-gentle, variegated with a brazen and a flesh Colour.

25. *Amaranthus singularibus paniculis, flammeo colore lucentibus. H. R. Par.* Flower-gentle with single Tufts, shining with a Flame Colour.

26. *Amaranthus aurea spica, & ignis fulgore versicolori. H. R. Par.* Flower-gentle with a golden Spike, that is, variegated with a fire Brightness.

27. *Amaranthus ficulus, spicatus, radice perenni. Bocc. Rarior. Plant. 16.* Sicilian spiked Flower-gentle, with a perennial Root.

This Plant bears Leaves in Figure and Form like those of common Flower-gentle, but somewhat smaller and sharper, shining underneath with a soft Down of a Silver Brightness; which grow close together about many Branches that rise from a ligneous and perennial Root. The Stalk often comes to be an Inch thick, and is as it were knotted at each Wing. The Spike is more simple

and smaller than in the others of this Genus, nor is it compacted of many as is common in the *Amaranthi*, but consists of a long Row of Flowers of a bright red Colour, ranged singly up to the very Top, with very small Cones underneath, that bend downwards, in which is contained an oblong Seed.

It grows in the Neighbourhood of *Catania*.

Mr. Ray saw and gathered this Plant in the Physick Garden of *Messina* in the Year 1664; from whence he supposes, that it grew in the Neighbourhood of that City.

28. *Amaranthus Americanus, altissimus, longifolius, spicis & viridi albicantibus. Plumier.* Tall, long-leav'd, American Flower-gentle, with whitish green Spikes.

29. *Amaranthus panicula conglomerata. C. B. Pin. 121. Amaranthus purpureus, saturio-coccineus. Lob. Icon. 250.* Purple or deep scarlet Flower-gentle.

30. *Amaranthus panicula conglomerata, majore, puniceo colore splendida. H. R. Par.* Flower-gentle with a large conglomerated Tuft, of a shining scarlet Colour.

31. *Amaranthus folio variegato, colore hilariori, qui foemina. C. B. Pin. 121. Fe-male Flower-gentle, with a variegated Leaf, of a bright Colour. Symphonia Dalechampii sive Amaranthus tricolor. J. B. 2. 670. Amaranthus tricolor. Lob. Icon. Floramour, or Spotted Flower-gentle.*

This Plant is well described by *Gerarde*; and therefore I shall here give you his own Words, without any Alteration. It far exceedeth my Skill, says he, to describe the Beauty and Excellency of this rare Plant called *Floramour*. And I think the Pencil of the most curious Painter will be at a Stay, when he shall come to set him down in his lively Colours; but to colour it after my best Manner, this I say: *Floramour* has a thick knobby Root, whereon do grow many thready Strings: From which riseth a thick Stalk, but tender and soft, which beginneth to divide himself into sundry Branches at the Ground and so upward, whereupon do grow many Leaves, wherein doth consist the Beauty: For, in few Words, every Leaf doth resemble in Colours the most fair and beautiful Feather of a Parrot, especially those Feathers that are mixed with most sundry

Colours, as a Stripe of red, and a Line of yellow, a Dash of white, and a Rib of green Colour, which I cannot with Words set forth; such are the sundry Mixtures of Colours that Nature hath bestowed in her greatest Jollity upon this Flower. The Flowers do grow between the Foot-stalks of those Leaves, and the Body of the Stalk or Trunk, base, and of no Moment in Respect of the Leaves, being as it were little chaffy Husks of an overworn tawny Colour. The Seed is black and shining like burnished Horn. Thus far he: To which *Johnson* adds: I have not seen this thus variegated as our Author mentions, but the Leaves are commonly of three Colours; the lower Part, or that next to the Stalk is green; the Middle red, and the End yellow; or else the End red, the Middle yellow, and the Bottom green.

32. *Amaranthus folio variegato, colore obscuriori five mas. C. B. Pin. 121. Male Flower-gentle, with a variegated Leaf, and a more obscure Colour.*

33. *Amaranthus aculeatus, spica gracili. Prickly Flower-gentle, with a slender Spike.*

34. *Amaranthus Indicus, spinosus, spica herbacea. H. L. Bar. Prickly Indian Flower-gentle, with an herbly Spike.*

35. *Amaranthus Indicus, spinosus, spica purpurascens. Prickly Indian Flower-gentle, with a purplish Spike. Amaranthus Indicus, spinosus, spica & caule rubentibus. Schol. Bor.*

36. *Amaranthus Indicus-orientalis, minimus, supinus, Portulaca folio, floribus in capitulum collectis. Small, low, East-Indian Flower-gentle, with a Purslane Leaf, and Flowers gathered into a Head.*

37. *Amaranthus Gracis, sylvestris, angustifolius. Wild, narrow-leav'd, Greek Flower-gentle.*

Amaranthus is so called from *ἀμαρτίζω* *flos*, *μαρταίω* *Marcesco*, and the privative Particle *a*; as if you should say, a Flower that never fades or decays; and it is strange, says *Pliny*, that after all the Flowers are decayed, it will revive in Water, and make Winter Garlands.

The general Opinion of most concerning these Plants as well as all others, is, That those that have red Flowers, Seeds or Roots, are

are good to stop the Courses in Women, and all other Fluxes of Blood in Man or Woman; and that such as are white will stop the Whites in Women, and Gonorrhœa in Men; which though it may happen to answer in some Instances, yet that it will hold good in all, will, I believe, be impossible to prove: However, the Qualities of all these being cooling, drying and binding, do, according to the Testimony of *Hippocrates*, serve to restrain Fluxes of Blood in Man or Woman.

Mr. *Lemery* says, That this Herb is moistening, cooling, and binding; and if taken in Decoction, is proper to stop and moderate the Loss of Blood; but that it is not much used in Physick.

TABLE CXIX. Fig. 2:

GENUS II.

Portulaca, Purslane.

Purslane is a Plant with a Rose-Flower A, consisting of many Leaves placed in an orbicular Figure B: Out of whose one-leav'd Flower-cup C, rises the Pointal D, which together with the Flower-cup turns to a Fruit E, which is generally oval, full of small Seeds I, and furnished with two Shells or Husks at Top, of which the outer one F, which was the Part of the Flower-cup that was split in two, gapes first; and the inner one H, which is nothing but the Pointal enlarged, gapes last, doubly and transversely; while the lower or other Part of the Flower-cup G, adheres to the Foot stalk.

The Species of Purslane are,

1. *Portulaca latifolia* seu *sativa*. C. B. Pin. 288. Broad-leav'd or Garden Purslane. *Portulaca hortensis*, *latifolia*. J. B. 2. 678. *Portulaca sativa*. Dod. Pempt. 661.

This Plant may be reckoned to have a single Root rather than otherwise, which in Time turns ligneous, and has a few Fibres hanging at it. It sends forth several Stalks a Foot long, and often shorter, round, thick, reddish, not upright, but leaning towards the Ground. The Leaves are confused, thick, and succulent, gradually dilating themselves

from a narrow Bottom, by which they adhere to the Stalk, roundish at the End, smooth, and even about the Edges, and of a somewhat acid Taste; among which rise yellow, Star-like, five-leav'd Flowers, with Chives of the same Colour. To these succeed oblong Husks, somewhat larger than a Grain of Barley, which, when ripe, split transversely or horizontally in the Middle, and shed a very small, dusky Seed.

It is proper to sow it in Gardens on well labour'd and dung'd Beds, in March or the Beginning of April; and it will continue fresh and green from June to the Autumn.

2. *Portulaca angustifolia* five sylvestris. C. B. Pin. 288. Sparrow-leav'd or wild Purslane. *Portulaca sylvestris*, minor five spontanea. J. B. 3. 678. *Portulaca sylvestris*. Dod. Pempt. 661.

This is much smaller than the former, lying wholly upon the Ground, and never rising up from thence. It has a thickish Root, and succulent Branches, which are divided into many Parts. The Leaves are about the Breadth of the Nail of one's little Finger, succulent, thick, and of a black-green Colour. The Flowers are small and mossy. In short, it scarce differs from the former in any other Respect but in the Smallness of its Parts; so that it is probable the Garden Kind was at first wild, and became larger by Culture.

It grows commonly in Italy, Sicily, Germany, and the South of France, on the fallow Grounds and by the High-ways.

3. *Portulaca sativa*, *latifolia*, *flavescens*, five foliis aureis. H. R. Par. Garden, broad-leav'd, yellow or golden-leav'd Purslane. *Portulaca hortensis*, *folio flavo*. Mor. H. R. Blef.

4. *Portulaca marina*, *latifolia*, flore suave rubente. Plum. Broad-leav'd Sea Purslane, with a fine red Flower.

5. *Portulaca Corassavica*, *angusta*, *longa*, lucidoque folio procumbens, floribus rubris. Prodr. Par. Bat. Corassavick Purslane, with a narrow, long, and shining Leaf, and red Flowers. *Portulaca Corassavica*, *angusta*, *longa*, *lucidoque folio*. Par. Bat. Sam-pier.

It spreads around on all Sides many thick, succulent, round, red Stalks, that lie upon the Ground, and are divided into many

Joints : From these Joints come forth both Branches, and Leaves that are an Inch and a half long, resembling the Leaves of *Chrysanthemum aizoides*, triangular, very succulent, of a saltish Taste that is not disagreeable. From the Wings of the Leaves come forth Flowers with fine thick Leaves, of a purplish Colour, and sometimes white, shaped like Stars, with purple *Stamina* in the Middle, and making a very fine Show. To which succeed many roundish, flat Seeds, having a Want in the Middle, of a shining purple Colour, like Grains of Gunpowder, or like the Seeds of the other Species of *Purslane*, with a Flower-cup composed of six Leaves, defended by a yellow Cover, and gaping in the Middle, as in the other *Purslans*. It varies very much as to Size in different Places.

It grows in great Plenty in the Salt Pools made by the Sea, near *Passage-Fort*, *Old-Harbour*, and in the Island of *Cayos* near *Port-Royal*, and in other Parts of the Island of *Jamaica*.

6. *Portulaca Corassavica*, procumbens, *Capparidis folio*, flore muscoso, capsula bifurcata. *Par. Bat.* *Corassavick low Purslane*, with *Caper* Leaves, a mossy Flower, and a forked Husk.

From a fibrous and whitish Root it sends forth a great many Stalks lying upon the Ground, above a Cubit high, like those of *Garden Purslane*, green with a Mixture of purple, thick-set with Joints on that Part where the Branches and Flowers grow, bending down, swelling and very much branched. At the Joints come forth orbicular Leaves placed alternately, somewhat oblong, green, thick, of the Size of *Caper* Leaves, with reddish Borders or Edges, and hanging at thick Foot-stalks half an Inch long ; such of them as stand next the Root are largest, but such as adorn the Branches are smaller and narrower, and end in a small red Point. The Flowers are small and reddish, consisting of five Leaves, with *Stamina* of the same Colour, rising out of the Joints or Bosoms of the Branches, sitting in small oblong Flower-cups, which turn to flat oblong Seed-vessels, which are green on the lower Part, juicy, reddish and forked on the upper Part, splitting horizontally ; the lower Part of which resembles a little membranous Bag

that contains four or five flat and blackish Seeds. This Part of the Husk sticks deep in the Junctures or Bosoms of the Branches ; insomuch that they cannot be taken out without either breaking or stretching the Branches. But when the Seeds are fully ripe, and the Cover broken, the lower Bag dries, so that the Seed appears lying as it were in a Ditch or Furrow. The upper Part or Cover is thick and greenish ; and when it joins to the lower Cover is somewhat reddish ; the Top of which is cut in two, and appears as it were forked.

7. *Portulaca Curassavica*, lanuginosa, *Kali folio erectior & elatior*, flore dilutius rubente. *Prodr. Par. Bat.* More upright and taller, downy, *Curassavick Purslane*, with a *Kali* Leaf, and a faint red Flower. *Portulaca Corassavica*, lanuginosa, erecta. *Par. Bat.*

The Root is garnished with many hairy Fibres, and sends up several branched, round, downy Stalks, above a Foot high, of a greenish red Colour ; which are clothed from Top to Bottom with narrow, roundish Leaves that grow in no regular Order, a Finger or a Finger and a half long, ending in a sharp Point, and resembling the Leaves of *Fleawort* as to their Shape, being thick and succulent, tender, and often bending down with their own Weight. At the Rise of these, but especially about the Tops of the Branches, it is covered with a thick Down, which in the smaller Species is longer. The Tops are expanded into many Leaves, from among which come forth Flowers without Foot-stalks, of a purple Colour, or of a faint red Colour mixed with purple, consisting of five roundish Leaves, ending in a small Point, with a yellow Star composed of little *Stamina* standing in the Middle like a little Crown. To these succeed small roundish Seed-vessels, that break horizontally in the Middle, and shed small blackish Seeds.

8. *Portulaca Curassavica*, lanuginosa, *Kali folio humilior & supina*, flore saturatius & elegantius rubente, capsulis in summo nonnihil acuminatis. *Prodr. Par. Bat.* Lower and leaning, downy, *Curassavick Purslane*, with a *Glaswort* Leaf, a Flower of a deep and beautiful red Colour, and Husks at Top somewhat pointed. *Portulaca Corassavica*, lanuginosa procumbens, *Par. Bat.*

In its native Soil it scarce rises a Palm high, and is covered all over with Down or thick and hairy Flox. But when the Seed is sown on a fruitful and well-laboured Soil, it produces thick-set Stalks nine Inches high, branched, round, partly lying upon the Ground, and partly standing upright, and downy; the Down coming forth in abundance at the Rise of the Leaves. The Leaves are green, shining, thick, resembling the Leaves of small *Houfleeke*, but not so round on the Surface, but plain, scarce an Inch long, pointed, growing thick and without Order. Among the Leaves on the Tops of the Stalks are spread most beautiful little Flowers, of a deep red Colour, and somewhat smaller than the Flowers of common *Purslane*.

9. *Portulaca Curassavica*, lanuginosa, Kali folio, humilior & supina, flore saturatus & elegantius rubente, capsulis in summo concavis. *Prodr. Par. Bat.* Lower and leaning, downy, *Curassavick Purslane*, with a Flower of a beautiful deep red Colour, and hollow Husks at Top.

The Species of *Purslane* may be known, without Flower or Fruit, by their thick fleshy Leaves alternately placed.

Portulaca was called by the Greeks *Ανδράχυν* and *Ασπράχυν*. *Turnebus* was of opinion, That *Portulaca* might be likewise called *Portulata*, because the Leaf resembles a little Door: But this he says without Warrant or Authority from any antient Author. Others are of opinion, That it is called *Portulaca quasi Porculaca*, borrowing its Name from Hogs, because the Hogs are great Lovers of this Herb: And *Apuleius* writes, That what the French call *Porcelia* or *Porcellina*, *Porcellaine*, (from whence our English Word *Purslane*) was called *Procastrum*. The latter Greeks call it *Χοιροκόλον*, which may be rendered *Porculaca* or *Hogs-Herb*. *Exempla vide apud Fe. Bod. à Stapel.*

This Herb is much used in Sallads: It allays the Heat of the Stomach, and restrains the Boiling of the Bile; and is therefore proper in putrid and malignant Fevers, in Heat of Urine and in the Scurvy. It is an Enemy to Lust, and hinders venereal Dreams and nocturnal Pollutions; and therefore ought to be recommended to such as love Chastity, or such as are too rampant in Feats of Love:

I am sure it would be more proper for Monks and Nuns, and such as have devoted themselves to a single Life, than a Fish or Egg Diet, or all the Cords and Halters with which they belabour their fat Sides. The Leaves eaten raw cure Teeth that are set on edge, and fastens loose Teeth. it is given with good Success to Children that have Worms. But we must be cautious of using it too much, because it is apt to putrify and corrupt in the Stomach, by Reason of its Coldness and Moistness, and to dissolve the Tone of it and the other Viscera; which Mr. Ray tells us he has experienced more than once in himself.

It is commonly pickled here in England with Salt, Vinegar, and Spices, in the same Manner that *Capers*, *Broom-Flowers*, *Birds-tongue*, *Sampire*, &c. are pickled for Sauces; and thus prepared it is more agreeable and friendly to the Stomach than raw.

Galen tells us, That *Purslane* is cold in the Third Degree, and moist in the Second, and is therefore proper to cool any Heat in the Liver, Blood, Reins, and Stomach; and that in hot Agues nothing is better. It stops hot and cholerick Fluxes in the Belly, Womens natural Courses, the Whites, and Gonorrhœa, Distillations from the Head, Want of Sleep, and Frenzy. The Seed is more effectual than the Herb, and is of a singular good Use to cool the Heat and Sharpness of Urine, and to restrain the outrageous Lust of the Body, venereous Dreams and the like; insomuch that the over frequent Use of it extinguishes the Heat and Vertue of natural Procreation. So that if any one is troubled with a Priapism, or has the Flames of Love burning too hot in his Breast or elsewhere, he knows where to find a Cure. The Females are clothed with a natural Modesty, which renders them so amiable in the Eyes of Men, and do not stand in Need of any Antidote against this Poison.

The Juice of the Herb is singularly good in Inflammations and Ulcers in the secret Parts of Man or Woman, being conveyed into the Parts by a Syringe.

The Herb bruised and applied to the Forehead and Temples, allays the excessive Heat and Pain that occasions Want of Rest and Sleep; and applied to the Eyes, takes away Redness and Inflammation in them.

and

and cools those other Parts where Pushes, Wheales, Pimples, St. Anthony's Fire, and the like, break forth, especially if a little Vinegar be put to it. The Juice also is used with Oil of *Roses* for the said Purposes, or for Blastings by Lightning, or Burnings by Gunpowder; as also for Womens sore Breasts.

Camerarius says, That the distilled Water used by some removed the Toothach, when all other Remedies failed, and that the thickened Juice made up into Pills with the Powder of *Gums Tragacanth* and *Arabick*, cured those who made bloody Water.

The wild *Purslane* is used as familiarly in Salads and Meats, in many Parts beyond Sea, where it grows in great Plenty, as the Garden Kind; and they find it a no less effectual Remedy for most of the mentioned Diseases; only it does not cool so powerfully, but is more astringent and drying for Fluxes and the like.

Lemery tells us, That *Purslane* contains a bundance of Phlegm and Oil, and little Salt.

From this Plant are prepared, The thickened Juice, The distilled Water from the Herb, A Simple, and a compound Syrup, and a Conserve of the Leaves.

S E C T. II.

Of Herbs with a Rose-Flower, whose Pointal or Cup turns to a Fruit with one Cell.

T A B L E CXX, CXXI.

G E N U S I.

Papaver, Poppy.

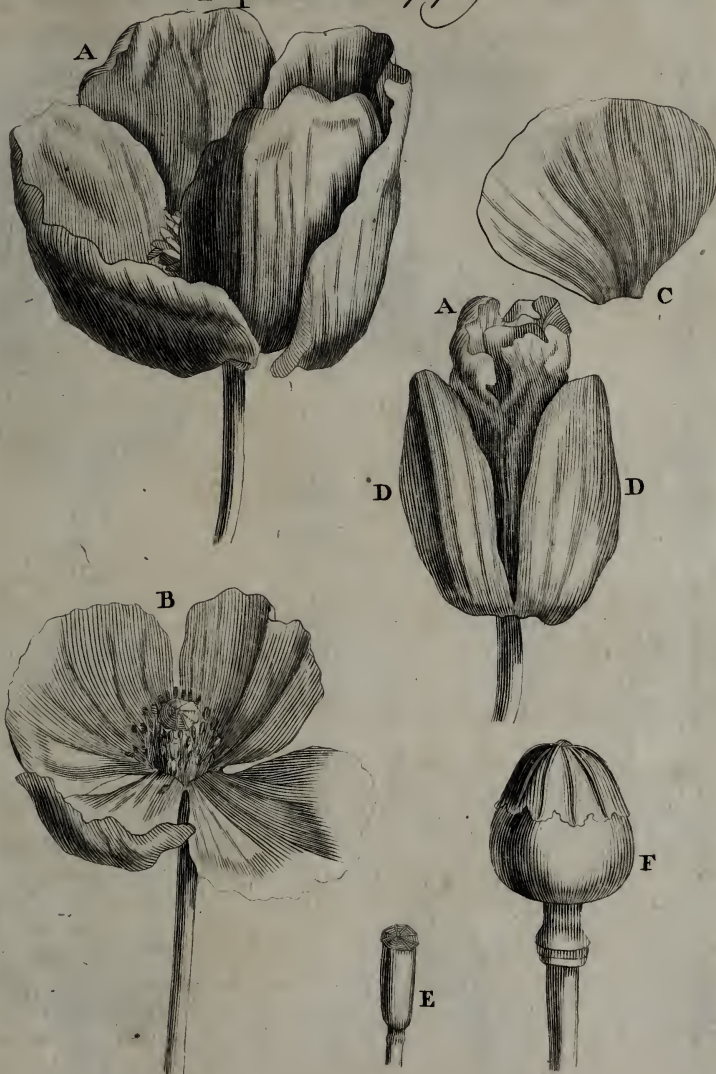
Poppy is a Plant with a Rose-Flower A B, consisting commonly of four Leaves C, placed orbicularly: Out of whose two-leav'd Flower-cup D, rises the Pointal E F, which afterwards turns to a Fruit or Husk G H I L, which is oval or oblong, and adorned with a little Head M N O Q, under which in some Species is opened a Series of breathing Holes or Spiracles quite round R S, into the Cavity of the Fruit, which is defended lengthwise with various Leaves or Plates T P, to which very many Seeds, commonly very small U X, adhere, as to their Placentæ.

The Species of Poppy are,

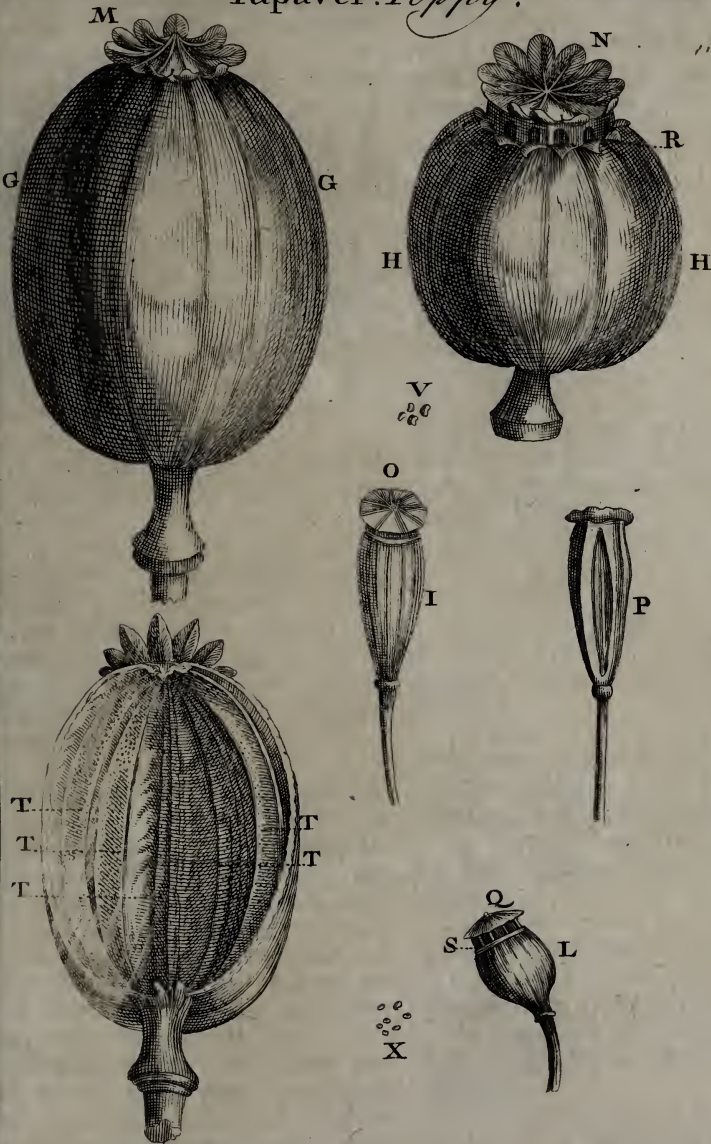
1. *Papaver hortense*, semine albo, sativum Dioscoridis, album Plinio. C. B. Pin. 170. Garden Poppy, with white Seed. *Papaver album*. J. B. 3. 390. *Papaver album sativum*. Lob. Icon. 272.

The general Description of Garden Poppy, of which there are many Varieties, is this: It has a Root about the Thickness of one's Finger, which is full of bitter Milk, as is the whole Plant. It rises with a Stalk a Yard long, divided into Wings or Branches commonly smooth, but sometimes moderately hairy; on which are set *Lettuce* Leaves, which are oblong, jagged, curled, and of a grey Colour. The Flowers are sometimes single, and sometimes double, fringed, and not fringed; of a white, red, Flesh, or variegated Colour, supported by a two-leav'd Cup; but these Leaves of the Flower-cup commonly fall when the Flowers blow. When the Flowers are decayed, they are succeeded by a Husk or Shell, that is globular, or rather oval or oblong, sometimes as big as a Hen's Egg, and sometimes no bigger than a Walnut, crowned with a starry Chapter, and containing, within membranous Partitions, Seed that is sometimes black, sometimes dusky, and sometimes white. The green Plant breathes a nasty and sickly Smell that disorders the Head.

2. *Papaver hortense*, semine albo, sativum Dioscoridis, album Plinio, flore leviter purpureo;









pureo. C. B. Pin. 170. Garden Poppy, with a white Seed, and a faint purple coloured Flower.

3. Papaver hortense, semine albo, sativum Dioscoridi, album Plinio, flore cinereo, ungue purpureo. C. B. Pin. 170. Garden Poppy, with white Seed, an Ash-coloured Flower, and a purple Pail.

4. Papaver hortense, semine albo, sativum Dioscoridi, album Plinio, flore candido, rubris maculis infecto, & semine flavo. C. B. Pin. 170. Garden Poppy, with white or yellow Seed, and a white Flower marked with red Spots.

5. Papaver hortense, nigro semine, sylvestre Dioscoridis, nigrum Plinio. C. B. Pin. 170. Garden Poppy, with black Seed. Papaver nigrum, sativum. Dod. Pempt. 445.

This differs nothing from the first Species, unless that its Flower is red, that its Shell or Head is rounder, and that its Seeds are black.

6. Papaver hortense, flore pleno, violaceo. H. R. Par. Garden Poppy, with a double Violet Flower.

7. Papaver hortense, flore pleno, dilute violaceo. H. R. Par. Garden Poppy, with a double faint Violet Flower.

8. Papaver vulgare, cujus capitula foraminibus hiant, semine incano, ἀγρότερον Dioscoridi. C. B. Pin. 170. Papaver sativum tertium. Dod. Pempt. 445. This is the Papaver spontaneum sylvestre of Gerarde. Wild Poppy.

The Root is white, single, (sometimes furculous) and pretty thick. The Leaves are sinuated, smooth, grey, dented round the Edges, growing to the Stalks without Foot-stalks, and set singly. The Stalk is a Cubit high or better, sometimes as thick as one's Finger, round, smooth, solid, and branched. The Flowers rise singly on the Tops of the Stalks and Branches, standing upon long Foot-stalks, very large, four-leav'd, of a purplish white Colour, and the Leaves near the Nails stained with large deep purple Spots. In the Middle of the Flower, instead of a Pointal, a great many white Seeds supporting blackish Chives, stand round the Chapter or Head. The Flower-cup consists of two Valves, which falls away as soon as the Flower blows. The great roundish Heads with a Star-fashioned Cover on the Navel,

are divided into as many little Cells as there are Rods or Lines in the Navel, and are full of numberless Seeds.

The whole Plant is swelled with a bitter milky Juice, which flows out upon Cutting.

It flowers here with us in June.

9. Papaver flore rubro, semine fusco. C. B. Pin. 171. Red-flower'd Poppy, with a dark brown Seed. Papaver sylvestre sive nigrum Dodonai. Lugd. 1710.

10. Papaver cristatum, floribus & semine album. C. B. Pin. 171. Crested Poppy, with white Flowers and Seed. Papaver fimbriatum aut cristatum album. Lob. Icon. 273. Papaver fimbriatum, flore albo. J. B. 3. 391.

The Leaves of this Poppy are very much sinuated or crested; and the Flower is all jagged or finely cut round the Edges, and is white, as is the Seed also.

11. Papaver cristatum, floribus rubris, semine nigro. C. B. Pin. 171. Papaver fimbriatum, aut cristatum, nigrum. Lob. Icon. 273. Papaver fimbriatum, flore purpureo. J. B. 3. 391. Crested Poppy, with red Flowers, and black Seed.

This Species differs in nothing from the former, but in the Colour of the Flowers and Seed.

12. Papaver cristatum, floribus ex albo & rubro mixtis. C. B. Pin. 171. Crested Poppy, with Flowers mixed of white and red.

13. Papaver cristatum, flore simplici, purpurascens, unguibus plumbeis. H. R. Par. Crested Poppy, with a single purplish Flower, and Lead-coloured Pails.

14. Papaver flore multiplici, purpurascens. Eyst. Poppy with a double purplish Flower.

15. Papaver flore multiplici, incarnato. Eyst. Poppy with a double Carnation Flower.

16. Papaver flore miniato, pleno. Eyst. Poppy with a Vermilion double Flower.

17. Papaver flore pleno, argentei coloris. Eyst. Poppy with a double Silver-coloured Flower.

18. Papaver multiplex, album, oris rubicundis. Eyst. White double Poppy, with red Borders.

19. Papaver flore pleno, album. C. B. Pin. 171. White Poppy, with a double Flower. Papaver multiflorum, niveum. Tabern. Icon. 573.

20. *Papaver flore pleno, purpureo.* C. B. Pin. 171. Poppy with a double purple Flower. *Papaver multiflorum, purpureum.* Tabern. Icon. 573.

21. *Papaver pleno flore, rubeo, saturato.* C. B. Pin. 171. Poppy with a deep Ruby double Flower. *Papaver Polyanthos tertia.* Tabern. Icon. 571.

22. *Papaver pleno flore violaceo.* C. B. Pin. 171. Poppy with a double Violet Flower. *Papaver Polyanthos quarta.* Tabern. Icon. 572.

23. *Papaver album, polyanthos, minus.* Tabern. Icon. 572. Small, white, many-flower'd Poppy.

24. *Papaver pleno flore, nigrum.* C. B. Pin. 171. Black, double-flower'd Poppy. *Papaver nigrum, Polyanthos seu multiflorum.* Lob. Icon. 273.

25. *Papaver flore pleno, laciniato, eleganter striato.* Hort. Edinb. Poppy with a double, jagged, and beautifully striped Flower.

26. *Papaver laciniatis floribus.* C. B. Pin. 171. Poppy with jagged Flowers. *Papaver laciniatum, rubrum, aliud unguibus purpureis, aliud unguibus albis.* Eyst.

27. *Papaver erraticum, majus, potius Dioscoridi, Theophrasto, Plinio.* C. B. Pin. 171. Red Poppy or Corn-Rose. *Papaver erraticum, rubrum, campestre.* J. B. 3. 395. *Papaver erraticum.* Dod. Pempt. 447.

This wild Poppy has a white single Root, furnished with a few Fibres, and as thick as one's little Finger. From the same Root, in a good Soil, rise several Stalks above a Cubit high, round, rough with stiff Hairs, [the Hairs towards the Tops of the Stalk and Branches do not stand out straight from them, but lie close to them] firm, branched, with Branches rising alternately out of the Bosoms of the Leaves. The Leaves are cut here and there into a great many Jaggs, like the Leaves of the greater Ragweed, or common Groundsel, or Buck-horn Plantain, (each Jagg ends in a Point) hairy, and dented round the Edges. The Flowers on the Tops of the Stalks and Branches, (which stretch out upon very long Foot-stalks) open themselves and blow out of a conical, double-valved, hairy, greenish Husk, which decays very soon; and are very large, consisting of four Leaves, which from a narrow Bottom

dilate themselves into a circular Circumference, of a beautiful scarlet Colour, and quickly fall. The Head in the Middle of the Flower is surrounded with a vast Croud of dark purple *Stamina*, with Chives of the same Colour, which are full of a fine yellow Dust within. The Head it self is oblong, smooth, with a Star-fashioned Navel or Cover, divided into as many Cells as there are Lines in the Star, and full of infinite Seeds of a dark blue purplish Colour. When the Stalks are cut they pour forth a great deal of bitter Milk, that has a very offensive Smell.

It grows every where among the Corn, and flowers about the Beginning of June.

Mr. Ray says, He has observed two Species or Varieties of this Plant: The one has a yellowish, the other a white Root: The first has white Prickles on the Stalk, the other red: The former has a longer Flower-cup, and a larger Flower of a deeper Colour, and black Nails; the latter has a shorter Flower-cup, and a smaller, paler Flower, with Leaves narrower at the Nails or Roots, and without any Spots.

Dodonæus, Bauhinus and others, make a double Species of this Plant; the greater now described, and a smaller one, with smaller oblong Leaves, not divided or cut in the Edges like *Rocket* Leaves, but only dented, and like the former in all other Respects.

This Species of Poppy likewise varies sometimes in the white Colour of its Flower, and the manifold Series of its Leaves, and is cultivated in Gardens by Reason of its Rarity and Beauty. But we shall find a great many more Varieties or Species in our Author, which are as follows.

28. *Papaver erraticum, majus, foliis florum variegatis.* H. R. Par. Great wild Poppy with the Leaves of its Flowers variegated.

29. *Papaver erraticum, majus, flore albo.* C. B. Pin. 171. Great wild Poppy, with a white Flower.

30. *Papaver erraticum, majus, five Rhœas, florum unguibus albis.* Hort. Edinb. Great wild Poppy, having Flowers with white Nails.

31. *Papaver erraticum, majus, five Rhœas, flore carneo.* Hort. Edinb. Great wild Poppy, with a flesh-coloured Flower.

32. Pa-

32. *Papaver erraticum*, pleno flore. C. B. Pin. 171. Double-flower'd wild Poppy. *Argemone multiplex*. Trag. 119.

33. *Papaver erraticum*, pleno flore minimo. H. R. Par. White Poppy, with a double Vermilion Flower.

34. *Papaver erraticum*, pleno flore igneo. H. R. Par. Wild Poppy, with a double fiery Flower.

35. *Papaver erraticum*, pleno flore igneo, marginibus candidis. H. L. Bat. Wild Poppy, with a double fiery Flower, and white Borders.

36. *Papaver erraticum*, pleno flore purpurascente. H. R. Par. Wild Poppy, with a double purplish Flower.

37. *Papaver erraticum*, flore phœniceo, pleno, unguibus albis. H. R. Par. Wild Poppy, with a double purple Flower, and white Pails.

38. *Papaver erraticum*, minus. C. B. Pin. 171. Tabern. Icon. 575. Small wild Poppy.

39. *Papaver erraticum*, capite oblongo, hispido. Wild Poppy, with an oblong bristly Head. *Argemone capitulo breviori*. C. B. Pin. 172. *Argemone capitulo breviori*, hispido. J. B. 3. 396. *Argemone capitulo rotulis canulato five Argemone Lacunæ*. Lob. Icon. 276. This is the *Argemone capitulo rotundiore* of Parkinson, and the *Argemone capitulo rotulo* of Gerard. Round, rough-headed, bastard Poppy.

The Leaves are hairy and finely cut, like those of *Adonis*, or horned Violet Poppy. The Stalks, from a single slender Root, are many, above a Foot high, small, hairy and branched: The Flowers are scarlet, falling very quickly, larger than *Adonis* Flowers, and of a Poppy Shape. The Heads are shaped like a Top, about the Bigness of a Hazle Nut, beset all around with stiff Prickles, covered with a dented Star, full of numerous Seeds, which are generally small, round and black.

It is to be found among the Corn, and in fallow Ground, and upon Ditches, especially in a gravelly Soil.

40. *Papaver erraticum*, capite longiore, hispido. Wild Poppy, with a longer bristly Head. *Argemone capitulo longiore*. C. B. Pin. 172. Lob. Icon. 276. *Argemone capitulo longiore*, spinoso. J. B. 3. 396. Long, rough-headed, bastard Poppy.

The Leaves of this Species are smaller, and more finely cut than those of the common wild Poppy. There are several Stalks from the same Root, which are rough with long Hair; and sometimes there is but one Stalk. The Flowers are of a purple Colour, with black Nails, much smaller than those of common wild Poppy; and very quickly falling. To these succeeds an oblong channelled or furrowed Head, which is covered with a Star-fashioned Cover, beset with white, thin-set and gentler Prickles, that look upwards. The Seeds are small, and when ripe, black and shrivelled. The Root is pretty long and single.

It is to be found among the Corn, and on the Borders of Fields, but not very commonly.

41. *Papaver erraticum*, capite longissimo, glabro. Wild Poppy, with a very long, smooth Head. *Argemone capitulo longiori*, glabro. Moris. H. R. Bles.

The Leaves are more cut than those of common wild Poppy, but less cut than the Leaves of *Argemone capitulo hirsuto*. It bears a purple Flower, to which succeeds a Head two Inches long, smooth, and containing small rough Seed in triangular Cells, after the Manner of other Poppies.

42. *Papaver erraticum*, foliis non dissectis. Wild Poppy, with entire Leaves. *Papaver Rheas*, integro folio, Hispanicum. Bocc. Mus. Parc. 2. 77. Tab. 65.

43. *Papaver erraticum* Pyrenaicum, flore flavo. C. B. Pin. 171. Pyrenean wild Poppy, with a yellow Flower. *Papaver erraticum*, Pyrenaicum, luteo flore. Prodr. 92.

44. *Papaver Alpinum*, saxatile, Coriandri folio. Rock Poppy of the Alps, with a Coriander Leaf. *Argemone Alpina*, Coriandri folio. C. B. Pin. 172. *Argemone giallo*. Pon. Bald. Ital. 100.

This Species has many Leaves at a small Root; which are smooth and green, and cut into many small Wings or Divisions like the Leaves of *Shepherds-needle*: Among which rise up two or three naked Stalks, a Palm high, covered with very small and fine Hair, which sustain one yellow, four-leav'd Flower each, of a middle Size. From the Navel of the Flower peep out a great many yellowish Chives. To the Flower succeeds a small roundish and roughish Head which contains the Seed.

This Plant was found amongst the Stones and Rocks on a Hill called *Seneberg*.

45. *Papaver orientale, hirsutissimum, flore magno.* Very rough oriental Poppy, with a large Flower.

46. *Papaver orientale, tenuiter incisum, ad caulem floridum.* Oriental Poppy, finely cut, having the Stalk beset with Flowers.

47. *Papaver orientale, Hypecoi folio, fructu minimo.* Oriental Poppy, with a *Warrenwort* Leaf, and a very small Fruit.

Vossius is of opinion, That *Papaver* comes & *Papo*, as *cadaver à cadō*: The Word may have arose from its being put into *Papa* in order to procure Sleep. Now *Papa* (which is commonly and erroneously written *Pappa*, with two *pp*'s) is the Food of Children, which we call *Pap* at this Day; whence we have the Verb *pappo* in *Persius* — *pappare minutum Pofcis*, &c.

By the *Greeks* it was called *Μήνων* and *Μη-ζών*, (for it is written both Ways) *Μὴ τὸ μὴ νομεῖν à non ministrando*, because those that eat it are not fit to go about any Service or Business.

One of the Kinds is called *Rheas*, from *ῥέω fluo*, because as some would have it, the Juice flows from it. *Gaza* translates it *fluidum*, because the Flower falls presently after it blows.

The white Garden Poppy is more used in Physick than the black, because it is reckoned safer; and of that the Flowers, Seed, and Heads both with and without the Seed are in Use. It cools and moistens. Its chief Use is for procuring of Sleep, in the Affections of the Chest, and of the Lungs, especially in a Cough, Hoarseness, and Consumption. It is used likewise in Fluxes and Looseness. It is applied externally to the Head and Feet, in order to ease Pain, and procure Sleep. *Schrod.*

There are several Preparations of this Plant. 1. The thickened Juice. 2. The Extract, which *Quercetanus* prepared after the following Manner: Take of the Heads of Poppy as much as you will, when it begins to lose the Flowers, (that is the best which bears red Flowers) bruise them, and digest them in *Balneo Marie*, with Honey Water mixed with Wine, or with *Canary*, for the

Space of twelve or fifteen Days, till the Liquor be of a very deep red Colour. Press it out with all your Might; that so you may have all the gummy and resinous Vertue: Draw from it in an evaporating Bath the clear Water, till nothing remains but the gummy and resinous Substance, which you may, if you please, put into cold Water while it is yet warm; and thus it will quickly congeal. Of this, says he, is made the true and approved *Opium*, not in the least sophisticated, (you must understand that this is *German Opium*) and which may be given instead of foreign *Opium*. 3. The distilled Water from the Flowers, or the flowering Heads. 4. The simple Syrup from the Decoction of the Heads of Poppy and *Penidium* or twisted Sugar. 5. The compound Syrup, which is made up with other Pectorals. 6. The first Electuary, or *Diacodium simplex*, made of the Decoction of the Heads of white Poppy, with Sugar, Honey or Soap with *Liquorice*. 7. The second Electuary, or *Diacodium Montani*, or *Syrupus de siliquis*, made of the Decoction of the Heads of white Poppy with the Husks, the Roots of *Marsh-Mallows* and *Liquorice*, with Sugar-candy and twisted Sugar. 8. The third Electuary, or *Diacodium Actuarii*, which is made up of Astringents. 9. The fourth Electuary, or *Diacodium in Solido*, i. e. of *Rotula*, made with an Emulsion and Sugar. 10. The Lohoc. 11. The Oil which is pressed from the Seed. *Id.*

The thickened Juice of Poppy is called *Opium*: Now this is the Juice which flows from a Wound made in the Head; for that which is squeezed or pressed from bruised Poppy is called *Meconium*. *Pliny* tells us, That when the Heads and Leaves are boiled the Juice of them is called *Meconium*, which has not near so much Vertue as *Opium*.

Both the distilled Water, and the Oil of Poppy, but especially *Opium*, is narcotick and anodyne, that is, procures Sleep, and takes away the Sense of Pain. This it effects, not by its Coldness, as some fancy, (since both its bitter Taste, its offensive Smell, its Inflammability, and its Power of Exulcerating evince the contrary) but by some Quality that we have not yet been able to discover. It is of excellent Use in a *Diarrhea* or Flux, in a Dysentery or bloody Flux, in Catarrhs, Coughs, &c. But great Caution must be used in taking it.

What

What *Belonius* says of *Opium* deserves to be read, and therefore we shall set it down under this Head. *Opium* is now made in *Turky*, says he, especially in *Achara*, *Carachara*, *Spartada*, *Emetelinda*, and other Towns in the Neighbourhood of *Paphlagonia*, *Cappadocia* and *Cilicia*. They sow Fields with white *Poppy* as we do with *Wheat*. In sowing they observe this Regulation, That every Rustick shall only sow as much as he thinks he has Servants enough to gather. When the *Poppy* has bore its Heads, they cut them gently, from whence there flow out some Drops of milky Juice, which they suffer to congeal: And there is no *Turk*, how poor soever, but buys it, and carries it about with him both in Time of Peace and War. A Merchant *Jew* from *Natolia* affirm'd to me for Truth, That there passes not a Year in which there is not carried out of *Paphlagonia*, *Cappadocia*, *Galatia* and *Cilicia* fifty Camel Loads of it, to *Persia*, *India* and *Europe*, and other distant Countries, and over the whole Dominions of the Great *Turk*. He said moreover, That it was more in Use among the *Persians* than among the *Turks*. I had once a Mind to try how great a Dose of it might be given at once without Harm. I found One who used to eat it every Day, who in my Presence eat half a Dram Weight of it. Next Day I gave him a whole Dram at once, which did him no Manner of Prejudice; unless that he seem'd as if he was drunk. The *Turks* praise it, and persuade themselves that it makes them more courageous and less afraid of the Perils of War; so that when the Grand Signior is raising an Army, it is consumed to that Rate, that there is none of it left in the Country.

Mr. Ray says, He has tried *Opium*, and observed no other Symptom, but that it warmed his Breast, and disturbed his Head a little, and made him dose and dream. He believes, That if the People of *Europe*, as for Instance, the *French*, *Germans* and *Italians* would take as much Pains about it as the *Turks* do, it might be made in those Countries as well as in *Asia*. For *Natolia* is as cold a Climate as *France*.

The best *Opium* is very bitter, warm to the Taste, insomuch that it inflames the Mouth. It is of a yellow Colour, inclining to the Colour of a Lion's Hair, made up into a Mass

as it were of many small Grains of a different Colour. The Smell is heavy and strong.

But altho' it is true, that the *Turks*, *Persians* and other *Eastern Nations* use *Opium* to revive their Spirits, beget Courage, and render them bold in warlike Conflicts, (for it intoxicates in the same Manner as Wine and other strong Liquors) yet the chief Reason why they continually eat it, is to stir up Lust; as they confess themselves in private Conversations, to such as they can be free with. And D. *Sachsus*, in *Ephemer. German. An. 2. Observ. 69.* says, That he was informed by a great many Persons, That after the Battle fought at *Levenz* in *Hungary*, when the Christian Soldiers were stripping the *Turks* who had been killed, they found many of them with a strong Erection; which doubtless was occasioned by their taking *Opium* before the Battle. [I very much question the Validity of this Argument, because I have been credibly informed by many Officers, who had been in the late War in *Flanders*, That nothing is more common than for dying Men to have an Erection at the very Point of Death, which continues some Time after.] But as to *Sachsus's* fancying that *Opium* may provoke some to Lust, viz. the *Eastern People*, and that it has a quite contrary Effect on the *Western* and *Northern People*, seems to me very improbable; for I have not the least Doubt but it stimulates in both.

The *Indians* prepare an Eleduary of *Opium* (says *Joh. Saar* in his nine Years Travels into *India*) which the *Chinese* use to excite Lust; by the Use of which they become so potent and rampant, that they will do Duty a whole Night without Intermission, their Mistresses being so overcome, that they are forced to make their Escape, as not being able to sustain the vigorous Efforts of their Lovers. *Olearius*, in his Journey into *Persia*, relates, That *Opium* is taken for the same Purposes by the *Persians* and *Indians*. *Itinerar. Persic. L. v. cap. 15* and *18*. And when *Mandello* was at a Feast with the *Cham*, in the City of *Amadabat*, there were laid upon the Table various Preparations of *Opium* in a golden Box; of which the Guests took what they thought convenient to strengthen and invigorate them to fight manfully under the Banner of *Lady Venus*.

P. *Gassendi* writes, That it appears both from *Dioscorides*, *Pliny* and *Apuleius*, that of old they baked the Seed of *Poppy* in their Bread, in order to preserve Health, which, he says, he knew was done by some People of his Acquaintance. *Matthiolus* informs us, That the People who inhabit the Valleys of *Trent*, *Stiria*, and the upper *Austria*, eat the Seed of *Poppy* mixed with their Cakes, and always use the exprest Oil of *Poppy* Seed, without becoming either the more sluggish, lazy, or sleepy for that.

Wagnerus, in his natural History of *Switzerland*, p. 262. says, That in *Argove* they sow a great deal of *Poppy* Seed, and press the Oil out of it, which they burn in their Lamps instead of *Olive Oil*: Some also use it in their Victuals instead of Butter; and likewise mix it with their Dough, of which they make Fritters and Pancakes, which they eat without receiving any Injury by it. However, I would not advise any one unaccustomed to it to make use of it without Necessity: For it retards the Motion of the Spirits, and hinders Concoction in acute Diseases, and consequently the Separation of the peccant Matter, and the purifying of the Blood.

To ease an unsufferable Pain of the Eyes, Take an Emulsion made of the Seed of *Poppy*, with Milk, *Lettuce* Water, and the Decoction of *Fennugreek*. It is an effectual Remedy. *Sennertus*.

Opiate Laudanum is of excellent Use in Physick to mitigate Pain, and to quiet and restrain the violent and disorderly Motions of the Humours.

The *Papaver erraticum, majus*, which is the *Rhœas* of *Theophrastus*, *Dioscorides* and *Pliny*, is likewise used in Physick, upon a great many Occasions.

It cools powerfully, procures Sleep, and eases Pain. Its chief Use is in Fevers, Pleurisy, (for which it is a specifick Remedy) Squinzy, and other Diseases that require cooling, especially the Diseases of the Chest. In the disorderly flowing of the *Menses* the Infusion of the Flower in the Spirit of Wine is a very good Remedy. There are some who endeavour to stop bleeding at the Nose, by applying the Herb outwardly to the Region of the Liver, and ascribe the same Virtue also to the Root. *Schroder*.

Galen says, That the Seed of this is much colder than the Seed of Garden *Poppy*, and therefore forbids the internal Use of it. *Id*.

The Preparations made of it are: 1. Distilled Water from the Flowers. 2. A Syrup of the Infusion of the Flowers thrice repeated. 3. A Conserve of the Flowers. 4. An Extract, with its own Water, and the Spirit of Sulphur. 5. Vinegar from the Flowers. *Id*.

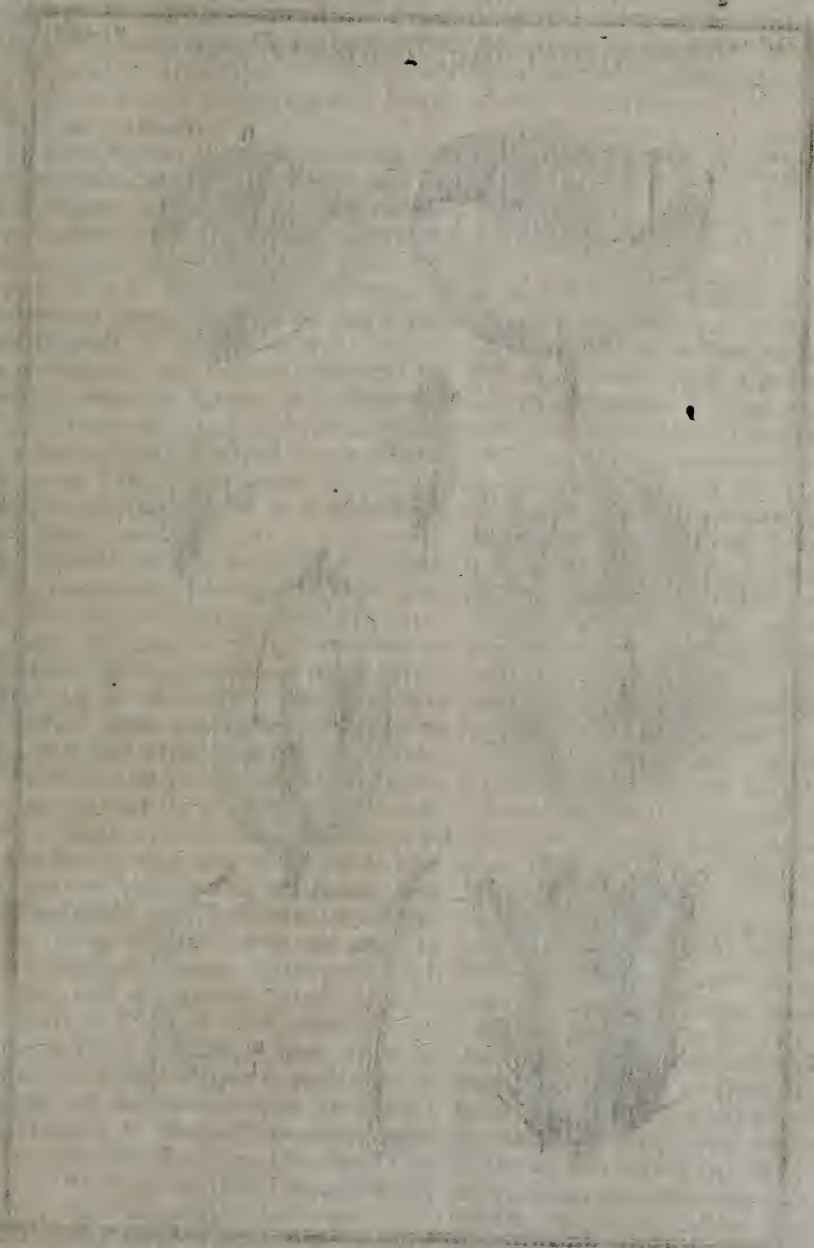
This Plant, says *Hoffman*, is a Specifick against the Pleurisy, and a most excellent Remedy to quiet Raving and Distraction; for which Reason the Use of it cannot be enough commended in burning Fevers, inward Inflammations, Squinzy, Pleurisy, &c. But it must be observed, That when the violent Pain of the Pleurisy is removed by the Use of it, we are to abstain from it, lest Spitting be thereby stopped; for then expectorating Remedies must be used. The Infusion of the Flowers in the Spirit of Wine, or the Decoction of the Flowers in Wine, is administred with very good Effect either in the Suppression of the *Menstrua*, or in their disorderly and irregular flowing.

If you desire that the distilled Water of the Flowers should receive their fine purple Dye, when the Water, while it is distilling, begins to run into the Recipient, you must take off the Head of the Alembick, and thrust a Handful of the Flowers into the Rostrum, which will stick there by Reason of the dewy Moisture on the Sides of the Rostrum. Then you must put on the Head again. The distilled Water by this Means will receive a beautiful Ruby Colour. In the same Manner may the distilled Water of other Flowers receive their Colour and Tincture. *D. Hulse*.

Both the white and the black Garden Kinds, says *Lemery*, contain abundance of Oil, Phlegm, and essential Salt. Their Heads are used in Physick, and chiefly those of white *Poppy*, but rarely their Leaves or Flowers. These Heads must be chosen fresh, the biggest and plumpest that can be had.

They are, continues he, narcotick, or somniferous; they appease Pains, thicken the sharp Serosities that fall down upon the Chest; they stop Loosenesses of the Belly and Fluxes of Blood; they vanquish the Vapours, and mitigate the Cough; they are likewise boiled

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boiled in Decoctions for Glisters, to ease the racking Pains of the Cholick.

The Seed of *Poppy* is anodine, pectoral, lenitive, very little narcotick; It is used in Emulsions with the four great cold Seeds.

There is likewise drawn from the pounded Seed of *Poppy* by Expression, an Oil which is proper for cleaning, brightening and softening the Skin. *Lemery*.

The same Author gives the following Account of wild *Poppy*: Wild *Poppy*, says he, is divided into several Species; but none of them is much used in Physick, except the *Papaver Rhæas* of *Gerarde* and *Ray*. The Flowers of this Plant are used in Physick: They contain abundance of Oil, and a moderate Quantity of essential Salt.

It is pectoral and lenitive; thickens the Humours, provokes Spitting and Sweat; is good in inveterate Rheums, in the Asthma, and in the Pleurisy. It is used either in Infusion or in Syrup: It procures Sleep very moderately; but its Head is a little more somniferous.

The Flower of Red *Poppy* or *Corn Rose*, says Mr. *Tournefort*, which is the chief Part used in Physick, is thickening, and reddens blue Paper a little, in the same Manner as the Solution of *Opium* does; which gives Occasion to believe that it contains a Salt that is very much analogous to it: But in *Opium*, that Salt which has very much of the Nature of *Sal ammoniack*, is mixed with a great deal of ferid Oil; whereas in red *Poppy* there is much less Oil, and much more viscid Phlegm: And therefore the Flowers of this Plant are lenitive and mitigating, and proper to cause the Expectoration of the Fluxions upon the Chest, and are good in Rheums and dry Coughs. They stop Fluxes of Blood, and operate gently by sweating. The distilled Water of the Flowers of red *Poppy* is prescribed in Doses from three to six Ounces. The Tincture is prescribed in Glassefuls, for Defluxions upon the Chest: This Tincture is charged sometimes with three or four Infusions; in each French Pint of which (which is about four English Pints) an Ounce of Sugar-candy is dissolved.

The following Pisan is excellent for a dry Cough: You must boil three Ounces of the Roots of *Bugloss*, and as much of the Roots of *Dogs-grass*, in two French Pints of Wa-

ter: Pour the boiling Decoction upon an Ounce of the Flowers of *Corn Rose*, and upon the Heads of white *Poppy* cut into small Pieces and put up in a small Bag, that so they may be pressed. Some use the dried Flowers of *Corn Rose* instead of *Tea*. There is likewise a Conserve, and a Syrup made of them. *Tournefort*.

TABLE CXXII.

GENUS II.

Argemone, Bastard Poppy.

Argemone is a Plant with a Rose-Flower A, consisting of a great many Leaves placed orbicularly B: Out of the Middle of which rises the Pointal C, which afterwards turns to a Fruit D, or oval Shell, having only one Cell or Chest, and as it were full of Windows E, with Ribs stretching from the Bottom to the Top, the Intervals betwixt which are possessed by Valves, which commonly gape at Top F: To each of the Ribs G, adheres a Placenta H, which is loaded with Seeds that are generally globular I.

Our Author says he knows but one Species of *Argentone*, which is,

Argemone Mexicana. *Papaver spinosum*. C. B. Pin. 171. Prodr. 92. J. B. 3. 397. This is the *Papaver spinosum*, *Americanum* of *Parkinson*. *Ficus infernalis* *Italarum*, an *Glaucium Dioscoridis*. *Ray*. *Thorny Poppy* of *America*.

At first it has three or more whitish green Leaves lying upon the Ground, streaked with white Veins, which growing greater, are long, smooth, and not hairy, somewhat long and broad, variously rent and torn on the Edges, but not to the middle Rib, having many Corners or Dents as it were about them, whereat stand many small sharp Prickles, not having any white Streaks or Veins on the under Side; but in their white milky Veins are like that wild *Carduus* or *Thistle*, called *Our Ladies Thistle*; and on the under Side are more whitish, with some small Prickles, along the middle Rib and Veins, with their Bottom encompassing the Stalk, which rises two or three Foot high, Spreading

spreading out into several Branches, with like but lesser Leaves on them, and bearing at each of their Tops one small Head inclosed in a rough Skin or Film, such as the *Poppies* have; which being open, there appears a small yellow Flower, commonly consisting of five Leaves, tho' sometimes but four, and sometimes six, with a small, green, long, prickly Head in the Middle, tipped at Top with a red Spot, which quickly wears off, with many yellow Threads standing about it. After the Flower is past, for it continues not long, the Head grows ripe, having five or six Ribs from the Top to the Bottom; in the intervals between which it is armed with very small, but very sharp and short Prickles, or Thorns, and contains round, rough, black Seeds, twice as big as any *Poppy* Seed. The Root is small, oblong, fibrous, and spreading, dying every Year. The whole Plant yields a yellow Juice. This is the Description of it by *Parkinson*.

Baughin says, That the Stalk is nine Inches high, branched, round, channelled, beset with small Prickles, and full of white Marrow: And that the Heads are oblong, hexagonal, pentagonal, and tetragonal, reddish on the upper Part when young and tender, but black when ripe; dreadful with thick-set and strong Prickles; and full of black, round Seed, which is six Times bigger than any *Poppy* Seed, ending in a Point, and most beautifully striped.

It flowers in *July* and *August*.

This Plant having been but lately found out, it has not been used in Physick, that I know of; only *Lemery* says, That it contains a great deal of Oil and essential Salt. Its Flowers, Head and Seed are pectoral, anodyne and narcotick. The Leaves applied externally, are proper to allay the Inflammations of the Eyes, to consolidate Wounds, and to resolve.

Perhaps it is called *Argemone*, because it clears the Sight from ἀργεμα, i. e. Exulceration, Mists or Clouds.

TABLE CXXIII. Fig. 1.

GENUS III.

Anapodophyllon.

A *Anapodophyllon* is a Plant with a Rose-Flower A, consisting of several Leaves placed orbicularly B: Out of whose Center rises the Pointal C, which afterwards turns to a Fruit D, which is generally oval, with one Cell or Chest, and full of Seeds E, which are for the most part roundish.

There is but one Species of this Plant, which is,

Anapodophyllon Canadense Morini. Morinus his *Canada Anapodophyllon. Ranunculi facie planta peregrina. H. R. Par. Aconitifolia humilis, flore albo, unico, campanulato, fructu Cynosbati. Mentz. Tab. 2.*

The Root is white, duskyish, and knobby, like the Root of *Anemone*, which spreads it self far and wide near the Surface of the Earth, and sends down thick Fibres deep into the Earth; from whence rises a Stalk five or six Inches long, white, round and firm, like a Wire of Iron, which is again divided into two little Stalks like Branches, like the former, and four Inches long: Each Branch sustains one Leaf not unlike the Leaves of *Aconitum Pardalianches* or *Napellus*, altho' it is not cut so fine. These two Leaves consist of six Jaggs, which resting upon a Foot-stalk with their broad Bottom, end in a broader Leaf of a deep green Colour, divided into two Points at the End, which with their Sides turn a little backwards. From the Wing of the Stalks, which sustain the Leaves, breaks forth a Flower with a pretty strong Foot-stalk half an Inch long: This Flower, before it blows, has a near Resemblance of the Fruit of *Cynosbati*, by Reason of the Thickness of the Stamina and Pointal within; but when it is blown it resembles a hanging Bell or bulbous *Stock-gilly-flower*. Now this Flower is composed of six hollow, white Leaves, that are somewhat folded at the Edges, and easily fall at a Touch: Within lurk twelve yellow Stamina, that surround a thick Pointal having three

Anapodophyllon.

Fig. 1.

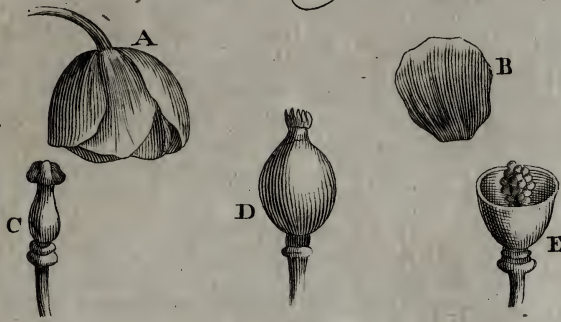


Fig. 2.

Opuntia. Indian Fig-tree.





three mossy Fissures at Top, and breathing a Smell like that of the smallest *Winter-green*. About the Beginning of *May*, when the Flower falls, the Pointal begins to grow thick, and at last to arrive to the Form and Bigness of the Fruit of *Cynosbatus*; the Point of which retains something of a fungous or mossy Substance. The Fruit, which is at first green, grows yellow when ripe and becomes a little reddish, and incloses within a pretty thick Skin a small Body in the Shape of a ripe *Strawberry*, sustaining small Seeds on its Surface, and resting upon a narrow Basis. The Plant propagates it self on every Side by its creeping Root: The first Year it thrusts up one Leaf with its Stalk; the following Year the Stalk with its Leaf becomes thicker; but the third Year the Stalk becomes forked, and bears two Leaves with Flower and Fruit. Mr. Ray had this Plant sent him from *London* by the Name of *Pomum maiale*, and cultivated it in his Garden at *Cambridge* for some Years; and thinks it a Native of *Virginia*.

which come forth white sharp Prickles, that easily stick to those that handle them, and leave their native Seat full of Juice within, of an herby Colour, viscid and salivous to the Touch, which Juice when dried feels like Grains of Sand between ones Fingers, along which run as it were Nets of a great many pretty thick Nerves; and these Leaves, by an agreeable Connexion, grow under other Leaves, which grow into a Stem, and branch out into Arms. Afterwards they become thicker with Time, and grow rounder, and even acquire a ligneous Substance at last, especially the lower ones, and then they lose most of their Prickles. Under the Wings of the Leaves rest many Rudiments of Fruit, which are also prickly, out of whose Navel come forth Flowers, somewhat resembling the Cup of the *Pomegranate* Flower, but more plump, being many in Number, yellow, and consisting of many Leaves broader than one's Nail, and resembling *Rose* Leaves. While these wither the Fruit ripens, which equals a large Figg, having a Navel on the upper End, with a Pulp that dyes the Hand with a bloody Colour, of a sweetish Taste, but not so savoury as Figgs, full of little Grains or Seeds, about the Bigness of Lentils, but sinuated, and uneven about the Edges; *Gesner* observes that there is a certain heavy and disagreeable Smell in the Fruit.

When the Plant first springs up, it puts forth two thick, succulent, pointed Leaves (you would believe that it was a Sort of *Houseleek*) out of whose conjugal Bosom come forth a Sort of whitish or purplish Hairs, which are the Beginnings of future Prickles, and which are followed soon after by a Leaf covered with the same, and all over rough, not broad but round almost, but in Process of Time gradually stretches out to Breadth, and the Prickles also become hard in Time. The Root of the young Plant is single and whitish.

This Tree likewise sweats out a Gum, very like Amber in Colour and Substance, if you except the stony Hardness, concremented into little Clotts, and vermiculated almost after the Manner of *Tragacanth*, and so very hard, that one is hardly able to break it with one's Teeth. When put to the Candle it does not flame, but burns away; nor does it yield.

TABLE CXXIII. Fig. 2.

GENUS. IV.

Opuntia, Indian Fig-tree.

OOpuntia, or Indian Fig-tree is a Plant with a Rose-Flower A, consisting of several Leaves placed orbicularly B: Whose Flower-cup C, afterwards turns to a fleshy Fruit D, which has a Navel F, and one Cell E, full of annular Seeds G.

The Species of Indian Fig-tree are;

1. *Opuntia vulgò Herbariorum*. The Indian Fig-tree of the Botanists. *Ficus Indica, folio spinoso, fructu majore*. C. B. Pin. 458. This is the *Ficus Indica major* of Parkinson, and the *Ficus Indica* of Gerarde. The Prickly-pear-tree.

Sometimes it becomes a great Shrub, with large Leaves, sometimes above a Foot long, and a Palm and a half broad, of a round oblong Figure, an Inch thick, and the lowermost much thicker and harder than the uppermost, covered with a Membrane without, tough and uneven with many Knots, out of

yield any fragrant Smell; and when chewed, it affords no remarkable Taste.

It grows in almost all the Islands and Provinces of *America*, except the most Northern. It thrives likewise and grows pretty large in the warmer Countries of *Europe*. *Camerarius* saw it at *Naples* twice as high as a Man, with a hard and ligneous Trunk. And *Mr. Ray* saw it at *Rome*, as large, in the Pope's Garden in the Vatican, called *Belvedere*.

Dr. Tancred Robinson observed, That this *Indian Fig-tree* produced ripe Fruit in the South of *France* and in the Kingdom of *Naples*, where it grows like a wild Plant that is a Native of the Place, by the High-ways, on the Sides of the Mountains, and among the Rocks in great abundance.

It is so lively a Plant that it will easily grow either from a Seed, or from a Leaf thrust half way into the Earth. It cannot bear the Cold, and therefore must be taken in in the Winter, and yet it does not agree with too close Places. It decays and rots with too much Moisture; and therefore is often hurt by Rains that fall in Autumn and the Spring.

2. *Opuntia folio oblongo, media*. Middle *Indian Fig-tree*, with an oblong Leaf. *Ficus Indica, folio oblongo, media*. *H. R. Par.*

3. *Opuntia major, validissimis spinis munita*. The greater *Indian Fig-tree*, defended by very strong Prickles. *Ficus Indica, seu Opuntia major, folio spinis longissimis & validissimis armato*. *Breyn. Prodr. 2. 35.*

4. *Opuntia folio minori, rotundiori & compressiori*. *Indian Fig-tree*, with a smaller, rounder, and flatter Leaf. *Ficus Indica, seu Opuntia, folio minori, rotundiori & compressiori*. *H. L. Bat.*

5. *Opuntia maxima, folio spinoso, latissimo & longissimo*. The greatest *Indian Fig-tree*, with a very broad and very long prickly Leaf. *Ficus Indica seu Opuntia maxima, folio spinoso, longissimo & latissimo*. *H. L. Bat.*

6. *Opuntia folio spinoso, longissimo & angusto*. *H. L. Bat.* *Indian Fig-tree*, with a very long and narrow prickly Leaf.

7. *Opuntia minima, folio subrotundo*. The smallest *Indian Fig-tree*, with a roundish Leaf. *Ficus Indica minima, folio subrotundo*. *H. R. Par.*

8. *Opuntia Americana, minima, spinis creberrimis, tenuissimis*. *Breyn. Prodr. 2.* The smallest *American Opuntia*, with very thick-set, and very small Prickles. *Ficus Indica, seu Opuntia Curassavica, minima*: *Hort. Beaum. & Hort. Amstel. 107. Fig. 56.* *Ficus Indica, minima, spinis brevissimis munita ex horto Fageliano*. *Schol. Bat.*

9. *Opuntia Americana, minima, flagelliformis*. *Plum.* The smallest *American Opuntia*, like a Twig.

10. *Opuntia Americana, arbor excelsa, Cereiformis, flore albo*. *Plum.* *American Opuntia*, a tall Tree, resembling the *Cereus* or *Torch-Thistle*, with a white Flower.

11. *Opuntia Americana, arbor excelsa, foliis reticulatis, flore flavescente*. *Plum.* *American Opuntia*, a tall Tree, with net-wrought Leaves, and a yellowish Flower.

Theophrastus tells us that there is a small Herb that grows near *Opus*, a City of the *Boeotians*, or *Epicnemidian Locrians*, which puts forth Roots from its Leaves: And from hence the Moderns gave the Name *Opuntia* to the Species first mentioned, because it propagates it self in the same Manner: And later Writers have found out a great many more Plants, especially in *America*, that have the same Property, and therefore they call them by the same Name, tho' they agree not to *Theophrastus's* Plant in any other Respect.

I cannot help setting down in this Place *Pliny's* Account of a very wonderful Plant of this Nature, which he takes from *Theophrastus*. *Ficus ibi, exilia poma habet. Ipsa se semper serens, vastis diffunditur ramis; quorum imi adeo in terram curvantur, ut annuo spatio insistant, novamque sibi propaginem faciant, circa parentem in orbem, quodam opere topiario. Intra sepem eam astant pastores, opacam pariter & munitam vallo arboris, decorat specie subter inuenti, proculve fornicato ambitu. Superiores ejus rami in excessum emicant Sylvestra multitudine, vasto matris corpore, ut LX. P. pleraque orbe colligant: Umbra vero bina stadia operiant. Foliorum latitudo pelia effigiem Amazonica habet: Ea causa fructum integens crescere prohibet. Rarusque est, nec saba magnitudinem excedens, sed per folia folibus coctus praeulci sapore, dignus miraculo*



Granadilla. *Passion Flower*







raculo arboris. Gignitur circa Aefinem maximè annem. Lib. xii. cap. 5.

As an Argument of the incredible Happiness and Fertility of those Countries that lie upon the River *Indus*, and particularly on the River *Aefines* which runs into the River *Indus*, the same Author has the following Words relating to this wonderful Tree, *Hec fuit Ubertas Soli, temperies cœli, aquarum abundantia; ut (si libeat credere) sub una ficu turme condantur equitum. Lib. vii. cap. 2.*

To this same Tree, *Horace* alludes, or rather means it, when he says,

*Germinat & nunquam fallentis termes oliva,
Suamque pulla fœcus ornat arborem.*

The Species first described is the same which in *Jamaica* and *Barbadoes* is called *The prickly Pear*, and is very common in *Europe*; whose Fruit, if it be much eaten, dyes the Urine of a Colour as red as Blood.

Both the Fruit and the Leaves cool and moisten, and encrease Spittle; for which Reason their exprest Juice is very proper for extinguishing burning Fevers, and quenching Thirst. The Seed is dry and astringent: And therefore the Fruit eaten with the Seed is said to bind the Belly. It is an agreeable and cooling, but windy Food, and liable to corrupt, if taken in abundance, as all other horary Fruits, and very pleasant to such as are hot. The Juice of the Plant and the distilled Water is admirable against bilious Fevers. Its Roots, with a certain Species of *Hieracium*, relieve those that have Ruptures, and cure *Erysipelas* or *St. Anthony's Fire*. The *Indians* press out the Juice, and use it instead of Water: And *Dr. Huges* informs us, That he has often quenched his Thirst with this Fruit.

We are told, that it is evident from Experience, That the Leaves or their Juice do wonderfully cure green Wounds; and they likewise powerfully discuss Tumours and Boils to which the Seamen are subject, who sail from *Europe* to *America*. *Dr. Huges* was wont to apply the Leaves wrapped up in Paper and toasted under the Ashes by way of Cataplasm to such Tumours, with a Success that exceeded his Hopes and Expectation; insomuch that he did not find the most

excellent Compound Medicine either so convenient or beneficial as this.

TABLE CXXIV, CXXV.

GENUS V.

Granadilla, Passion-Flower.

Passion-Flower is a Plant with a Rose-Flower A, consisting of several Leaves placed orbicularly B: Out of whose Flower-cup C, which is cut into many Segments, rises the Pointal E, with a Crown D, fringed at the Bottom; but furnished with a tender Fruit or Embryo at Top F, on which stand three Clubs H, under which are the Stamina G. The Embryo turns afterwards to an almost oval or globular Fruit I, that is fleshy, consisting of one Cell K, and full of Seeds L, sticking to the Ribs O, as to a Placenta, and covered with a Sort of a Hood or Veil MN.

The Species of *Passion-Flower* are,

1. *Granadilla Hispanis, Flos Passionis Ital. Col. in Rech. 889. Clematis trifolia, flore roseo, clavato. C. B. Pin. 381. Maracot Indicum. Ald. Hort. Farnes. 50, 52, 58. This is the Maracot five Clematis Virginiana of Parkinson.*

This Plant stands upon a lively, creeping, jointed Root, that is very brittle, of a pale whitish Colour and a sweetish Taste, much like that of a green Bean. It puts forth many Shoots or Twigs, which are slender and very long, of a reddish green Colour, and easily propagating themselves by Fibres coming forth out of the Joints or Wings of the Leaves which touch the Ground; and taking hold of, and climbing up Trees and other Supports by its Tendrels, which come forth from the Bosoms of the Leaves: The Leaves are cut into three Segments, and resemble a Lance, or the Leaves of *Hops*, the middle Jagg being the longest, four or six Inches long, and almost as broad, finely dented, smooth, nervous, and somewhat veiny, of a faint green Colour, with two Sort of Protuberances about the Foot-stalk that are greener, and about the Bigness of *Miller*, of an unpleasant

fant Smell like stinking *Gladwin*, and a somewhat acrid Taste, placed alternately, and three Fingers distant from one another. The Flowers come forth from the Wings of the Leaves every Day during the whole Summer till Autumn, having a sweet Smell like *Honey* or *Hyacinth*; before they blow resembling the Fruit of *Nigella*, with a leafy green Flower-cup, oblong and narrow, resting upon a long and almost triangular Foot-stalk, ending in five Points, and enclosing as many Leaves not beaked; but when they gape, then appear small Leaves white within and hollow. On these rest Wheels or Rows of thick-set Fringes, as big as a Thread, cut in a double Order, bestrewed with purple Spots; the upper Rows of which are stretched out into straight and short Filaments, but the lower ones into longer, and these crooked one Way at the End, because by Reason of their greater Length, they were compressed by the hollow Leaves of the Flower-cup. Both these Rows have been observed to consist of fifty or sixty Filaments in the young Plant. From the Navel of these and other more inward and very short Rows rises a Pointal like a Pillar, with a wreathed Bottom or Basis, almost an Inch long, upright, round, smooth, of a faint green Colour, supporting a little Ball that is somewhat oblong, and of the same Colour, and surrounded on the lower Part where it adheres to the Pillar with five little pendulous Plates; standing in the Middle of oblique, thickish, and branched Foot-stalks, that are somewhat crooked, stiff, hanging, and resembling a radiated round Diadem: Out of the topmost Ball rise three upright, oblong, headed Clubs, of a greenish white Colour, distant at Top in a triangular Position, and somewhat distorted or twisted, resembling an oblong S, with thick Heads, of a deeper Colour, and divided on the upper Part with a gentle Cut, so that the Heads seem to be cut in two, tho' they be round in Circuit, and as it were quinquepartite. The Flowers open in the Morning, and remain gaping the whole Day; but they close again at Night, and open no more, but grow saccid and fall. They bear a round and exuberant Fruit of an Ash-colour, divided into three Cells, which are observed even in the entire Fruit, by Reason of a gentle

Protuberance, and the triangular Figure at Top about the Point. It contains Grains within, that are placed obliquely, tending to the Center, somewhat resembling those of the *Malum Punicum*, which we call *Pomegranate*, but twice as big, having a hollow Base whereby they adhere to the Foot-stalk, ending in a Point, not having an angular or broad Head as in the *Pomegranate*, whitish, transparent and softer, with black Seed within shaped like that of *Pomegranate*, which appears within the diaphanous or transparent, juicy and soft Flesh of the Kernels, of a Figure somewhat resembling a Heart, covered with hollow Punctures, and having a white and almost insipid Medulla. When the Fruit is dry, the Seed will rattle, as in a dried *Cucumber*: And when the Fruit is cut open there are found in it black Seeds, covered with that sapless, viscous, blackish Flesh, and of a sweet Taste, like the *Cassia fistula*; and other naked and loose Seeds, of a whitish yellow Colour, rougher, as it were with a boney Skin, resembling the Skin of *Pomegranate* Seeds. The Bark of this Fruit is like Leather, resembling that of *Coloquinida*, cartilaginous and whitish within, of a very sweet and grateful but weak Smell. The Taste of the fresh Kernels in the ripe Fruit, turns from a sweet to a somewhat acid Savour, very agreeable, and striking the Palate with a pleasant Flavour, between that of a *Strawberry* and a *Musk-melon*. They say that this Fruit eaten much softens and loosens the Belly rather than loads it. The Fruit in this Plant is not perfected from the lower Part of the Flower, nor from the Pillar or Pointal of the Flower, which appears wreathed and channelled after the Manner of *Ionick* Pillars; but from that top Ball which bears the Clubs.

2. *Granadilla folio tricuspidi, flore ex purpurâ nigricante. Passion-Flower with a three-pointed Leaf, and a Flower of a blackish purple Colour. Clematis trifolia, altera, flore clavato, ex nigro punicante. H. R. Par.*

3. *Granadilla folio tricuspidi, flore magno, flavescente. Passion-Flower with a three-pointed Leaf, and a large yellowish Flower.*

4. *Granadilla folio tricuspidi, flore parvo, fructu Olivæ formâ. Passion-Flower with*

a three-pointed Leaf, a small Flower, and a Fruit in Shape like an Olive. *Clematis Passionalis, triphyllus, flore luteo.* Mor. Hist. Oxon. Part. 2. 7.

5. *Granadilla folio amplo, tricuspidi, fructu Olivæ formâ.* Passion-Flower with a large, three-pointed Leaf, and a Fruit in the Shape of an Olive. *Clematis Indica, folio Hederaceo, major, fructu Olivæ formâ.* Plum. 70. Tab. 84. *An Nhandir-Oba Brasiliensium Pisonis? i. e. Passifloræ affinis Hedera folio Americana.* Pluk.

Our Author observed three Species of this Plant: 1. The greater: 2. The middle: 3. The lesser: All of them of the same Form and Consistence, as well in their Shoots as in their Leaves, Flowers and Fruit. The Leaves of the first are of the same Thickness, Largeness and Figure with our common Ivy, whose Bottom is almost semicircular, but the fore-part is divided into three Lobes that end in a sharp Point, the middle one of which is somewhat longer and broader than the lateral ones. The Leaves of the second are more deeply cut; and those of the third still more, but its Parts are much narrower, and resemble a Saddler's inverse Hammer. The Leaves of both stand upon Foot-stalks, which are not inserted in the extreme Border of the Leaf, but a little higher up.

The Flowers, which are almost without Smell, and pale, consist only of one Leaf and are supported by a very small Foot-stalk, not much above an Inch long, with a small Joint in the Middle, and inserted in their Center. This Leaf of the Flower is divided into five narrow and sharp-pointed Jaggs, that are placed in the Form of a Star, but not reaching to the Center. In its Bosom it contains a Fringe, consisting of a double Row of small Filaments, of which the outer ones are upright, and the inner ones crooked inwards. From the Bottom of the Flower rises a Pillar, as in the former, with its oval Head and three small Clubs fixed in it. The Capital or Head turns to a Fruit like an Olive, but somewhat larger, of a violet Colour, with a smooth and thin Bark, full of an acid violet-coloured Juice that is very agreeable to the Taste, and containing several oval, black, shrivelled Seeds, adhering to the Bark as in the former.

It grows in great abundance in Hedges in all the Islands.

6. *Granadilla folio angusto, tricuspidi, fructu Olivæ formâ.* Passion-Flower with a narrow three-pointed Leaf, and a Fruit in Shape like an Olive. *Clematis Indica, folio angusto, trifido, fructu olivæformi.* Plum. Tab. 85.

7. *Granadilla folio glabro, tricuspidi & angusto, flore virescente, minimo.* Passion-Flower with a smooth, three-pointed and narrow Leaf, and a very greenish Flower. *Flos Passionis, flore & fructu omnium minimis.* Par. Bat. *Flos Passionis Curassavicus, folio glabro, trilobato, & angusto, flore flavescente, omnium minimo.* Prodr. Par. Bat.

8. *Granadilla scetida, folio tricuspidi, viloso, flore albo.* Stinking Passion-Flower, with a three-pointed hairy Leaf, and a white Flower. *Flos Passionis albus.* Par. Bat. Icon. *Clematis Indica, hirsuta, scetida.* Plum. 71. Tab. 86.

9. *Granadilla scetida, folio tricuspidi, viloso, flore purpureo, variegato.* Stinking Passion-Flower, with a three-pointed hairy Leaf, and a purple variegated Flower. *Flos Passionis, hirsuto folio, flore purpureo, variegato.* Par. Bat. Icon.

10. *Granadilla polyphyllus, fructu ovato.* Many-leav'd Passion-Flower, with an oval Fruit.

11. *Granadilla polyphyllus, fructu Colocynthis.* Many-leav'd Passion-Flower, with a Colocynthis Fruit. *Clematis Indica polyphyllus major, flore clavato, fructu Colocynthis.* Plum. 62. Tab. 79.

This Plant sends forth many Twigs, about the Bigness of Vine Twigs, and equally knotty and hard, which stretching themselves far upon Trees and Shrubs, they are a great Ornament to them by the pleasant greenness of their Leaves. At each Knot, which are half a Foot distant, comes forth a Leaf, almost as broad as one's Hand, smooth, divided into seven Segments, narrower below, somewhat broader towards the Point, deeply split almost to the Foot-stalk, which is about four or five Inches long, with certain small Rings almost one Line long. The Colour of the whole Leaf is a pleasant green, somewhat deeper on the upper Side than underneath, where a Nerve is extended length-

wife, putting forth some crooked transverse Branches. At the Rise of each Foot-stalk comes forth a Tendrel as in a *Vine*, and also a Flower, adhering to a Foot-stalk almost two Inches long, and inclosed in a membranous Husk, somewhat bigger than a Pullet's Egg, which opens it self into three even and whitish Leaves, marked on the inside with several Spots, and striped with some purplish Veins. When this Husk is opened, the Globe of the Flower appears, almost as large as the Husk, of an oval Figure, the lower and middle Part of the Cup being entire, but the upper Part divided into five Leaves or Jaggs quite to the Extremity, of a pale green Colour without, and variegated with many rusty Spots. The under half of the blown Flower resembles a Flower-cup with a pentagonal Brim, whitish within, with a hairy Bottom, each of which Hairs is very small, and tipped with a red Chive. This Flower-cup is begirt with a double Fringe, whose Filaments are one Line thick, tender and pointed, almost square, and contiguous to one another: Such as compose the outer Row are about an Inch and a half long, but those that compose the inner Row are scarce an Inch long; all of them whitish towards the Ends, and altogether of a violet Colour to the Middle, but on the lower Part under the Middle of a pale Colour: These are adorned with annular Bands, and rise upright, but such as compose the outer Row are somewhat lower, but of the same Colour and Consistency with the former. Besides the foresaid Filaments disposed like Rays, there is moreover a double Row of violet-coloured Leaves in the Circuit, five in each Row, of which the inner are much narrower than the outer ones, but both the one and the other are about an Inch and a half long, with a small Point at the End that turns outwards. Besides, in the Bottom of the Flower-cup we have been speaking of to the Center of it, there is a certain Sort of Basis, of a cylindrical Figure, from three to four Lines thick, hollowed into a little Furrow, and begirt with many Hairs that are very short, and of a dark red Colour. On this Basis rests a small white Pillar, round as if it had been turned by Art, about eight or nine Inches high, and a Line and a half

thick, divided at Top into five small Arms, each of which has a Top with a Gash upon it, four Lines long, and about two broad, and covered all over with small golden Dust. In the Middle of the Arms sits an oval, smooth, and very green Head, about five Fingers long, and three thick, with three Threads fixed in it, looking upwards, shaped like Nails, two or three Lines long, tipped with large oval Chives, with a small Furrow on one Side. The mentioned Capital or Head is nothing else but the first Rudiment of the Fruit, which in Time grows to the Size of an Orange; and is round and smooth like a *Coloquintida* Apple, except towards the Foot-stalk, where it has something of the Shape of a Pear. The Skin is almost two Lines thick, of a solid Consistence, white within, and greenish without. The inner Part of this Fruit is full of a white and mucilaginous Flesh, and contains many Seeds somewhat larger than the Grains of Wheat, almost of an oval Figure, but somewhat flat, and pointed at one End, pretty hard, skinny and hairy. The Flower is very agreeable both as to its Figure and its Smell.

It grows in the Island of *Martinico*, along the Side of the River of *St. Mary*, &c.

12. *Granadilla polyphyllus*, flore crispo. Many-leav'd Passion-Flower, with a curled Flower. *Clematis Indica alia polyphylla*, flore crispat. Plum. 66. Tab. 87.

The Twigs of this Plant are not perfectly round, but angular. The Leaves are divided like the black *Hellebore* of *C. B.* with a Rose-Flower, *i. e.* the Foot-stalk which is two or three Inches long, is split into other three much shorter and slenderer ones, the middlemost of which bears only one Leaf much larger than the rest; the other two are forked, the Branch next to the Middle bears a Leaf of the same Shape, but smaller; and the other bears a Leaf yet smaller than that, cut to the very Basis; but that Segment which looks to the Foot-stalk, resembles an Auricle rather than a Leaf. Every Leaf, considered apart, does somewhat resemble a *Laurel* Leaf: But all of them are dented quite round, smooth, shining, and of a delightful green Colour, somewhat deeper on the upper Side, but paler underneath, with many crooked Branches of Nerves. The

greater

greater Leaf or Segment, which is the Middle, is about four Inches long, almost two broad, but the smallest is not above one Inch long, and half an Inch broad.

The Flowers are of the same Structure and Make with those of the former, but somewhat larger. The Pillar, Clubs, and Arms on which the Chives rest are white, and stained with reddish Spots. The Heads of the Clubs are divided in two, and the Chives bestrewed with a very fine Dust. The Fringes of the Flowers are thick-set Filaments, dyed with a deep red, and twisted with two or three annular Bands, after the Manner of the Serpents painted on Medusa's Head.

From the Leaves next under these Rods, come forth five Leaves within, which are all over blue, and five without, which are of a very pale green Colour, marked with a great many small reddish Spots, and without dyed with a bright green. The three Leaves which cover the Flower before it blows, are hollow like a Spoon, fringed, quite round, dyed with a deep green, and have many Ribs underneath.

The Fruit is of the Figure and Size of a moderate Apple. The Skin is of the same Consistency with that of our small Gourds, of which the Tobacco-Boxes are made, and is likewise even and smooth on the Surface, of a delightful shining green, and variegated with very bright Spots. The Flesh and Seeds are of the same Nature with the former.

It grows in the Island of *St. Domingo*.

13. *Granadilla folio Hederaceo, flore & fructu minimis. Ivy-leaf'd Passion-Flower, with a very small Flower and Fruit. Clematis Indica, flore minimo, pallido. Plum. 73. Tab. 88.*

The Twigs and Sprays are very slender and yielding. The Leaves are membranous and smooth, of a deep green on the upper Side; the largest two Inches long, and an Inch and a half broad; others have a Prominence or Appendice like an Auricle on both Sides, some on one Side only, and others on neither, and are almost of an oval Figure, adhering to a very short Foot-stalk, which is begirt as it were with two Rings. The Foot-stalk of the Flower is very small, and about an Inch long. The Flower it self

is of the same Structure with the former, not broader than one's Thumb Nail, of a pale green Colour and no Smell. The Fruit is exactly round, and not bigger than a Pistol Bullet, at first of a shining green Colour, which afterwards turns to a deep violet, having a very tender Skin, full of a Juice of the same Colour, and fraught with many small black Seeds, with uneven Risings upon them, and shaped like a flat Heart.

This also is to be found in many Parts of *St. Domingo*.

14. *Granadilla folio Hederaceo, flore albo, fructu globofo, villofo. Plum. Ivy-leaf'd Passion-Flower, with a white Flower, and a globular hairy Fruit.*

15. *Granadilla folio vario. Plum. Passion-Flower with a various Leaf.*

16. *Granadilla Sirinamenfis, folio oblongo, serrato. Surinam Passion-Flower, with an oblong, dented Leaf.*

17. *Granadilla Sirinamenfis, folio Ulmi. Surinam Passion-Flower, with an Elm Leaf.*

18. *Granadilla flore suavervubente, folio bicorni. Passion-Flower with a charming red Flower, and a Leaf with two Horns. Clematis Indica, flore clavato, suavervubente, fructu hexagono, coccineo, folio bicorni. Plum. 68. Tab. 83.*

There are two Species of this Plant: The one has triangular Stalks like those of *Cyperus*, which are greenish and woolly; and the other has taper, very slender and blackish Stalks: And both produce a Flower, a Leaf, and a Club at each Knot, of the same Size and Figure. In the one the Colour of the Flower inclines to a bright red, in the other it is almost quite white. The Fruit of the former is somewhat longer than that of the latter, thicker in the Middle, and ending in a Point at both Ends.

The Flower stands on a very slender and reddish Foot-stalk, near a Cubit and a half long. The Gem or Bud resembles a Cone 9 or 10 Digits long, swelling on the lower Part, whitish and downy, but somewhat red at the End. The blown Flower consists of ten Leaves spreading out into a Circle, of which the five outer ones are larger than the inner; every one of the smaller or inner ones is placed betwixt two larger ones.

The

The outer or larger ones are about an Inch long, and four Lines broad, but the inner ones are much narrower, tho' of the same Length, both framed by Nature in Shape of a Tongue; the greater ones on the farther Side are of a whitish green Colour, with three small green Nerves; and are almost green within: The smaller ones are dyed with white inclining to red, with some altogether white intermixt: Upon these Leaves stands a Circle as it were fringed, composed of a double Row of very small Filaments, the longest of which are partly purple, and partly white, the rest being very short, bowing inwards, placed on the Brim of a Sort of Basin, out of whose Center rises a Pointal or Pillar, coped with an oval Ball, with three small Clubs fixed on the Top, and nodding downwards. The Basis of the Ball is surrounded by five little Tongues at an equal Distance from one another, each of which has an almost oval Chive, covered with yellow Dust above. The blown Flower is about two Inches in Diameter, and has hardly any Smell.

When the Flower decays, the small oval Ball which we mentioned turns to a hexagonal Figure, like a small Citron, about the Bigness of Small Nuts, with a thick and soft Rind like Leather, sometimes quite red without, like purple, otherwise of a whitish green Colour inclining to purple, marked with deep Spots on that Side that looks to the Sun; and containing many oval black Seeds, adhering to the inner Skin by small Filaments or Threads, that are wrapped in thin white Skins.

The Leaves hang at Foot-stalks a little thicker than those of the Flowers, being every where stained with red Spots, about as broad as the Palm of one's Hand, of a membranous Contexture, and of a delightful green Colour on both Sides; some of them smooth and polished, and others appearing somewhat downy, cut in the Form of a Heart where they adhere to the Foot-stalk, with the End split into two sharp Horns very much divergated from one another, betwixt which intervenes a very short and sharp Angle. They have three Nerves underneath, each of them reaching from the Bottom to the Point, and sending forth small transverse Branches.

This Plant grows in the Islands of *Martinico* and *St. Domingo*.

19. *Granadilla latifolia*, fructu Maliformi. Broad-leav'd Passion-Flower, with a Fruit shaped like an Apple. *Clematitis Indica*, *latifolia*, flore clavato, fructu Maliformi. Plum. 67. Tab. 82.

It differs from the other Species in nothing else but the Shape and Size of the Leaves, which are above half a Foot long, three Fingers broad, round at Bottom, ending in a Point, very little cut, in Shape of a Heart, membranous, smooth, and dyed with a most delightful green. The Flowers agree with the former in Colour, Smell, Make and Size, and come out of a three-leav'd Bagg, of the Consistence of very fine Parchment, that is likewise purplish, and striped with deep-coloured Lines. The Fruit is exactly round, about the Size of a small Apple, of a firmer Skin than the others, and of a like Consistence with those small Gourds of which they make Tobacco-Boxes.

It grows in the Island of *St. Domingo*, and in the Island *de la Tortue*.

20. *Granadilla fructu Citriformi*, foliis oblongis. Passion-Flower with a Fruit shaped like a Citron, and oblong Leaves. *Clematitis Indica*, fructu Citriformi, foliis oblongis. Plum. 64. Tab. 90.

21. *Granadilla fructu minore*, corymbofo. Passion-Flower with a small round Head. *Clematitis Indica*, polyanthos, odoratissima. Plum. 75. Tab. 90.

22. *Granadilla Androsæmi folio*, fructu jujubino. Passion-Flower with a *St. Peters-wort* Leaf, and a jujube Fruit. *Clematis Indica*, alia, flore minore, pallido. Plum. Tab. 89.

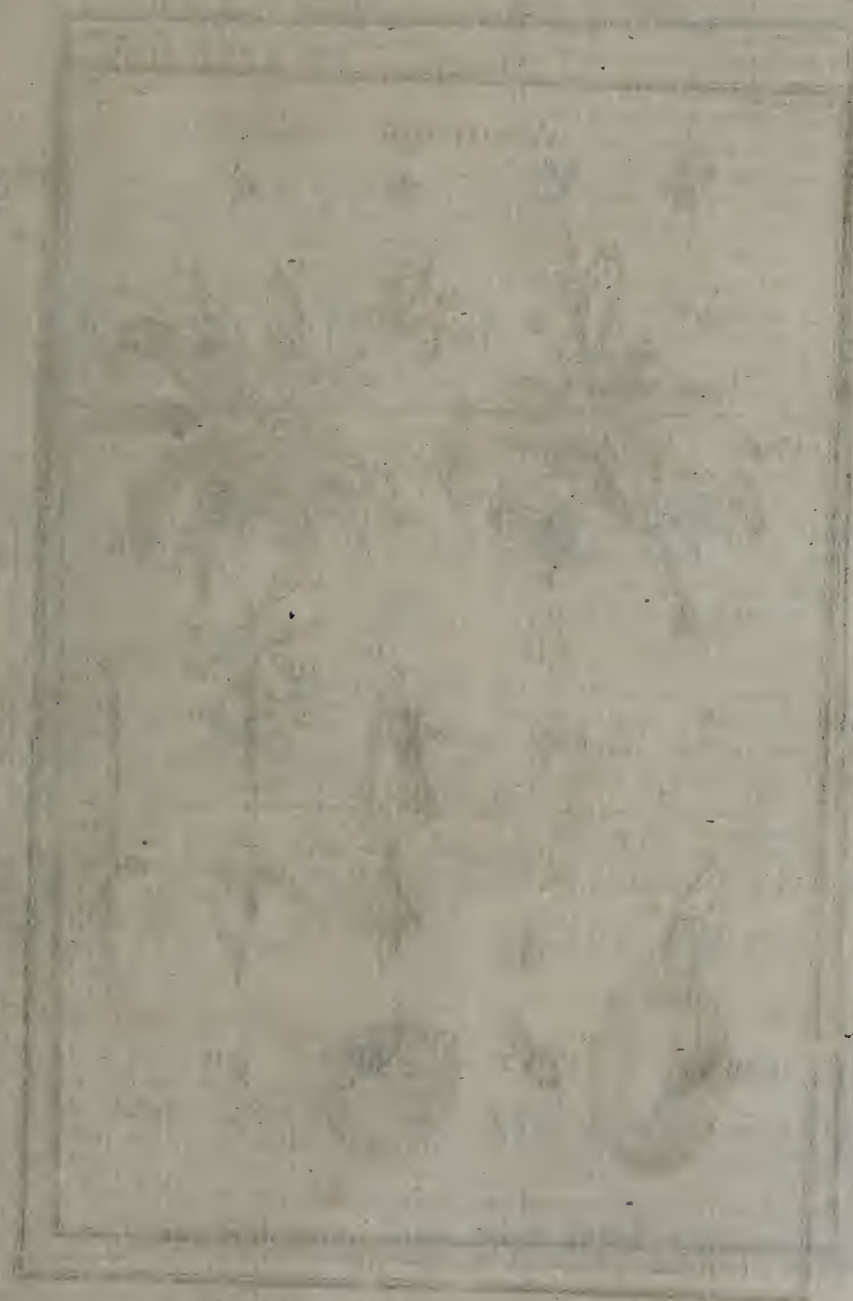
This Plant is called *Granadilla*, from the Spanish Word *Granada*, which signifies the Fruit of the *Pomegranate-Tree*, which they thought resembled the Fruit of *Passion-Flower*. It is not used in Physick.

COGNAC



Murucuia.





Mitella.

Fig. 1.

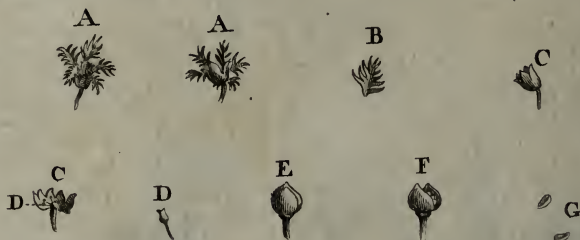


Fig. 2.

Alfine. Chickweed.

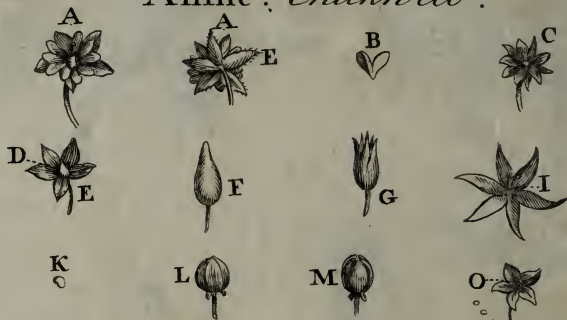


Fig. 3.

Myosotis. Mouse-Ear.



TABLE CXXVI.

GENUS VI.

Murucua.

M*urucua*, according to Mr. *Plumier*, is a Plant with a Rose-Flower A, consisting of many Leaves B, placed orbicularly 1, 2, 3, 4, 5, and furnished with a Flower-cup C, divided into many Parts D E F G H. The Middle of the Flower is possessed by a Tube or Pipe K, shaped like the Trunk of a Cone, from which rises the Pointal L, with a tender Fruit or Embryo at Top M, on which rest three Clubs R S T, and under them the *Stamina* N O P Q. The Embryo at last turns to a Fruit U, which is commonly oval, with one Chest, and fleshy X, and full of Seeds Y, which are covered with a Sort of Hood or Veil Z.

There is but one Species of *Murucua* yet known, which is,

Murucua folio lunato. Murucua with a crooked or horned Leaf. *Clematis Indica, flore puniceo, lunato.* Plum. 72. Tab. 87. *An Ferrum equinum volubile.* Munting. *Contrajerva an Passiflora Naviformibus foliis Americana.* Pluk. Almagest.

The Twigs or Sprays of this Plant are very small and round, and yet it aims at climbing high, and covers the Hedges, fastening it self to them by its very small Tendrils. At each Joint is set a Leaf of the Figure of a *Meniscus* (i. e. a Glass concave on the one Side and convex on the other) with obtuse Horns, or stretched out like a Butterfly's Wing, smooth, of a deep-green Colour, having three Ribs underneath, spreading smaller Branches up and down, almost an Inch long, and extended almost two from one Extremity to the other, adhering to a very short Foot-stalk, not above three Lines long, and somewhat twisted.

From the same Joints comes forth a crimson Flower without Smell, resting upon a Foot-stalk about an Inch long, which, before it blows, resembles a small Cone, almost one Digit long, blown up and swelling in the lower Part: When it is blown it puts

forth Leaves disposed in the same Manner as in the *Granadilla's*, the under somewhat larger than the upper, an Inch long, three or four Lines broad, shaped like a blunt Tongue, somewhat crooked on the outside, with three Nerves appearing underneath; the inner or upper ones, smooth, shorter and narrower, ranged round a channelled Pipe, which is shaped like a Cone, hollow, and cut off above, about half an Inch long, from the Bottom of which rises a very small Pillar, somewhat longer than in the other Sorts, of a reddish Colour, divided at Top into five Filaments or small *Stamina*, which are crooked on the Outside, each of them furnished with a small, pendulous, moving Chive or Cope, like a Gash, and bestrewed with very fine yellow Dust. The Filaments embrace in their Bosom a green oval Head, with three little Clubs that are very slender and reddish, and a green Point fixed in it, which at last assumes the Shape and Size of our *Jujubes* (tho' sometimes they are perfectly round) with a thin smooth Skin, of a dark violet Colour, and very tender Flesh within, yielding a violet-coloured Juice, and containing abundance of black Seeds, with little Knobs on them. When the Fruit comes to be quite ripe it becomes one half longer than in the Time of flowering. It has an insipid Taste.

It flowers almost the whole Year, and grows plentifully on the Brink of the *Pore of Peace* in the Island of *St. Domingo*.

TABLE CXXVII. Fig. 1.

GENUS VII.

Mitella.

M*itella* is a Plant with a Rose-Flower A, consisting of many Leaves placed orbicularly B: Out of whose Flower-cup C, rises the Pointal D, which at last turns to round pointed Fruit E, gaping at Top like a *Mitre* F, and full of Seeds G, which are mostly round.

The Species of *Mitella* are,

1. *Mitella Americana, florum petalis fimbriatis.* American *Mitella*, with flowers whose

whose Leaves are fringed. *Sanicula seu Cortusa Americana*, altera, flore minuto, fimbriato. H. R. Par. *Cortusa Americana*, altera, floribus minutis, fimbriatis. Vallor. H. R. Mentz. Tab. x.

The Flowers, which are white and capillaceous are scarce discernible. A black shining Seed is contained in round Husks.

2. *Mitella Americana*, florum petalis inregris. American *Mitella*, with Flowers whose Leaves are entire. *Sanicula montana*, *Americana*, repens. H. R. Par. *Cortusa Indica vel Hedera terrestris*. Bod. à Stap. in Theophr. 366. hujus fructus describitur in Par. Bat. 131. An *Sanicula sive Cortusa Americana fruticosa*. Park.

From capillaceous Roots it puts forth creeping and somewhat hairy Stalks. The Leaves resemble those of the *Cortusa Matthioli*. In the Month of May it puts forth a small Stalk, about the Length of one's middle Finger, on which are set little pale Flowers, shaped like *Hyacinthus medicus* before they blow, afterwards Star-fashioned and white, and furnished with many *Stamina* within. Some call this *Cortusa Americana flore fimbriato*, to distinguish it from *Cortusa Americana flore spicato, stellato*. The Seed-vessels do not agree to *Sanicle*. Mr. Ray says, He cultivated this Plant, creeping with its Rods, for some Years at Cambridge, but did not then nicely observe either the Seed or Seed-vessels. It is an anomalous Plant, and does not seem to be the same with the *Cortusa Matthioli*. But since it has got that Name, let it e'en keep it as long as it can.

3. *Mitella Americana*, maxima, tinctoria. Dyer's greatest American *Mitella*. *Orellana*, seu *Orellana filliculis Lappaceis*. H. L. Bar. *Urucu*. Piso. Edit. 1658. 133. *Achiote seu Medicina tingendo apta*. Hernand. 74. This is the *Arbor Mexiocana fructu Castaneæ, coccifera*. C. B. *Daburi* Clus. ex lib. 3. cap. 19. *Bixa Oviedi ejusdem*. lib. 3. cap. 20. *Urucu Brasiliensibus Maregy*. Piso. de qua fit tinctura *Orellana dicta*. *Arbor finium regundorum*. Scaligeri. The Baucaw, or Roucou-tree.

It is a Shrub like a Tree, about as big as the *Pomcitron-tree*, with a white Wood like *Hazel*, and a dark dusky Bark. The Leaves are placed alternately on Foot-stalks three, four, or five Fingers long, and

sometimes shorter, and are oblong, pointed, shaped like a Heart, five, six, and even ten or twelve Digits long, of a fine green Colour, and furnished with a Nerve that runs longwise, and oblique Veins that stick out underneath.

At the Ends of the Branches, on short Foot-stalks, stand many Flowers, ranged in the Form of a Berry, each of them as big as a *Rose*, consisting of five Leaves, that are white mixed with a faint carnation Colour. In the Middle stands a great Number of yellow *Stamina*, tipped with purple Chives. It has scarce any perceivable Smell.

To the Flower succeeds a Fruit, viz. a Pod or Shell, like *Myrobalanes*, oblong, or like a round Pyramid, two or three Digits long, of the Size of a *Prune*, having four moderate Angles which run lengthwise: When unripe it is green without, but reddish when ripe, and is all over bristly by Reason of the Threads sticking up, but not prickly. In each Pod are thirty or forty Grains, every one standing on its own Foot-stalk, of a sharp conical Figure, or like a small Pea, but flat on two Sides as if pressed betwixt one's Fingers. The Colour of the Grains is a bright and shining vermillion, and moistened with Juice of the same Colour, so that when touched it dyes the Hand of a fine vermillion Colour. The fresh Seeds are soft like the Seeds of an *Apple*, each of them marked with a silver Spot. The ripe Pod opens of it self. The dried Seeds become of a dark red Colour; and yet retain their Tincture as before; and whether fresh or dried, may be used. Bruised and put into simple or distilled Water, they give it a noble vermillion Dye, which drunk by it self is good against several Poisons, agreeable to the Palate, tasting somewhat bitter and aromatick. It is made up into a Mass, from whence are made Balls and Cakes that will keep many Years, and are sent into Europe. If it mixes with the Urine, it gives such a lasting Dye to one's Shirt or Smock, that it can never be got out again. They likewise prepare a Magisterium of this, like that of Coral, and keep it for Use. The *Brasilians* dye the Outside of their Dishes and Flagons (which they make of the Skins of Gourd) with this Tincture. The Root boiled with a Puller, or any other Flesh, dyes it like the best *Saffron*, and gives

gives it a good Taste. The Barbarians set a high Value on this Tree, and plant it round their Cottages: It is green the whole Year, but bears its Fruit in the Spring; and then it is cut down, because it is useful for making of Fire, by rubbing one Piece against another, like striking one Flint against another. This Use of the Wood is mentioned by *Rochebert* in his History of the *Isles des Antilles*, and by *D. Hughes* in his *American Physician*.

The Bark is proper for making Cords and Ship Ropes of, which are stronger than those made of *Hemp*.

The Tincture with some Water of the same Temperature, either drunk or applied outwardly, allays feverish Heats, stops bloody Evacuations, dissolves Tumours and Abscesses; for which Reason it is conveniently mixed with cooling Potions; and also with Meats.

It is likewise mixed with that delicious Liquor made of the *Cacao*, which we call Chocolate, in order to cool, and to give it a fine Colour and Taste; for by the Help of this, Chocolate is easily digested without any Crudity. It eases the Toothach, when occasioned by Heat, provokes Urine, and quenches Thirst.

They make the Tincture of the Fruit after this Manner: They take the Grains that are perfectly ripe, and infuse them into hot Water, and make Cakes of that which subsides.

It is to be observed, however, says *Fo. de Laet*, that a twofold Tincture is brought to these Parts: One simple, most perfect, and of a crimson Colour, which is used in Women's Paints: [The *American* Islanders do likewise anoint their Bodies with it, to make them handsome, and to make them appear more terrible to their Enemies, when they go to War.] The other, mixt with *Rosin*, and made up into great Balls, to which I fancy they add the Juice of the Root, for it dyes a saffron rather than a Vermilion Colour.

This Genus is called *Mitella* from the Form of the Fruit, which resembles a small Mitre or Episcopal Hat or Cap.

TABLE CXXVII. Fig. 2.

GENUS VIII.

Alsine, Chickweed.

Chickweed is a Plant with a Rose-Flower.

A C, consisting of many Leaves that are sometimes split in two B, and sometimes entire: Out of whose five-leav'd Flower cup E, rises the Pointal D, which at last turns to a membranous Fruit, consisting of one Chest, that is roundish L, and conical F, gaping G M, and full of Seeds I K O, adhering to a Placenta.

The Species of Chickweed are,

1. *Alsine altissima nemorum*. C. B. Pin. 250. Tall wood Chickweed. *Alsine major, repens, perennis*. J. B. 3. 362. *Alsine major*. Dod. Pempt. 29. This is the *Alsine major*. Park. item, *Alsine aquatica sive palustris major ejusdam*. *Alsine major*. Ger. & *Alsine palustris ejusdem*. Great marsh Chickweed.

From a perennial, creeping, fibrous Root, it puts forth several Stalks, which spread far and wide, and are some Cubits long, round and reddish, downy and branched; at each Joint of which are set Leaves opposite to one another, the largest as big as the Leaves of *Pellitory* of the Wall, of the same Shape, hairy along the Nerves and Borders; but the smallest like the Leaves of common *Chickweed*, sometimes without a Foot-stalk, and sometimes with a pretty long and hairy one, of an insipid Taste. The Flowers are beautiful like those of the *Graveniola leucanthemum*, consisting of five Leaves, each of them split to the very Bottom, white and striped, with snowy Stamina possessing the Middle, with green Chives, from the Top of which peep out bending Fibres; and to support the whole Flower are placed under it greenish, hairy Leaves, which infold the following Seed-vessels, which are like the Seed-vessels of *Hypericum* or *St. Johns-wort*, narrow at the Bottom and broad at Top, in which are contained Grains as large as those of *Poppy*, reddish, and hanging Branch-fashion round a Club.

The Leaves of this Plant are sometimes a little sinuated round the Edges, and as it

were curled. It is found in moist and marshy Places, and near Wells and running Water.

2. *Alfne maxima Solanifolia*. *Mentz. Pug. Tab. 2.* The great Nightshade-leav'd Chickweed.

Mr. Ray is of Opinion, That this Plant, which is described by *Christianus Mentzelius* in his *Pugillum rariorum plantarum*, is the same with the former, for that it often has Leaves a little sinuated about the Edges.

3. *Alfne montana, latifolia, flore laciniato*. *C. B. Pin. 251.* Broad-leav'd mountain Chickweed, with a jagged Flower. *Alfne Hederacea, montana, maxima*. *Col. Part. 1. 290.*

This Species has a lively Root; and Stalks that are round and hairy, a Foot or a Cubit high, weak, and lying, unless they are supported by the neighbouring Shrubs, somewhat reddish, especially at the Joints, which are frequent on the Stalk, and make but short Intervals between, begirt with two Leaves opposite to one another, resting upon long and slender hairy Foot-stalks (an Inch and a half long,) and they themselves likewise hairy, of a pale green Colour, long, gradually ending in a sharp Point from a broad Bottom, like the Leaves of *Bindweed*, and sometimes a little sinuated round the Edges. The Flowers on the Tops of the Branches are white, five-leav'd, the Leaves being split almost to the Bottom, as in the other Species. The Seed-vessel is of a pyramidal Figure, with a great deal of small, dark yellow Seed within it.

It flowers in *August*, and the Seed is ripe in *September*.

The Fruit of this Species is straight, and their Foot-stalks remain upright, and not bending downwards as in the common Sort.

4. *Alfne media*. *C. B. Pin. 250.* Middle Chickweed. *Alfne vulgaris five morsus Gallinae*. *J. B. 3. 363.* *Alfne minor*. *Dod. Pempt. 26.* This is the *Alfne minor five media*. *Ger.* and the *Alfne minor*. *Park.* Common Chickweed.

It is not much unlike the greater Sort, and loves to grow in the same Places. The Roots are capillated, or rather single, divided into many small Fibres, which lay hold of the Earth so strongly, that it is hard to extirpate them, with Tendrels lying along upon the Ground that are tender, hairy, red-

dish and jointed. The Leaves are like those of *Pimpernel*, smaller than in the greater Species, somewhat hairy, in like Manner set over against one another at the Joints, and of an insipid Taste. The Flowers are white, Star-fashion'd, and smaller; but the Seed in the Husks is not unlike.

It grows in oozy Places near Hedges and Roads, as also in Vineyards and Gardens among *Coleworts*, and flowers almost the whole Year.

This Plant varies so remarkably, according to the Nature of the Soil, and other Accidents, and puts on so many different Faces, that the common *Botanists* make different Species of all these Varieties in the same Species.

5. *Alfne Plantaginis folio*. *J. B. 3. 363.* Plantain-leav'd Chickweed.

From a small Root capillated with many very small Fibres, it puts forth a great many Stalks nine Inches long, round, slender, lying along upon the Ground, jointed, branched, and rough with a short Down, so that it almost escapes the Sight. The Leaves at the Root are small, resting upon longish Foot-stalks, smaller on the Stalks and with shorter Foot-stalks, growing in Couples over against one another, somewhat longer and narrower than those of the common *Chickweed*, in which are chiefly remarkable the Nerves running lengthwise, like those of *Plantain* Leaves, five at most, raised and easily observed on the further Side. At each Divarication of the Stalks and Branches stands a small Flower, resting upon Foot-stalks an Inch long and better, being small, white and five-leav'd, the Leaves being intire, sharp, and not split as in common *Chickweed*, and surrounded with five long, narrow, sharp Leaves of the Flower-cup. The Seed-vessel is much such as that of common *Chickweed*, having a high Top, and full of small, black, shining Seeds in the Shape of a Kidney, opening it self when ripe on the upper Part, after the Manner of *Lychnis*.

This Plant is not remarkable either for any Taste or Smell.

It flowers in the Months of *May* and *June*, and quickly bears ripe Seed. It is very commonly to be met with in Coppices, and on the Banks of Ditches, especially in oozy and marshy Places.

6. *Alfiné Hyperici folio. D. Vaillant.*
Chickweed with a St. Johns-wort Leaf.

7. *Alfine Americana, Nummulariæ foliis.*
Prodr. Par. Bat. & Par. Bat. American
Chickweed, with a Penny-wort Leaf.

The Root consists of very small whitish Filaments, spreading all around taper Stalks, a Foot long, lying along upon the Ground, and round, which being stretched, the Skin breaks, as in the other Chickweeds, the tougher inner Part remaining unbroken. At more than a Finger's Distance come forth Leaves in Pairs opposite to one another, almost round, standing upon very short Foot-stalks, the Diameter being $\frac{1}{4}$ of an Inch long, with Plantain Nerves running along the whole Leaf from the Foot-stalk. Several Flowers come forth together upon Foot-stalks an Inch long, coming out of the Wings of the Leaves, being composed of oblong white Leaves, as in the other Species: To which succeed so many small Seeds.

It grows commonly on the watery Banks of the River Cobre, and in other shady and moist Places.

8. *Alfine maritima, perennis, Nummulariæ folio.* Maritime perennial Chickweed, with a Penny-wort Leaf.

9. *Alfine Lotoides, fucula. Bocc. ravior.*
Plant. 21. *Alfine folio Sphæroide, Heliotropio cognata. H. Cathol.*

The reddish, jointed and feeble Stalks of this Plant lie along upon the Ground. The Leaves, as to their Substance, or Texture and Figure, but not as to their Number, are something like the Leaves of the *Lotus Libyca Dalechampii*, or the *Trifolium vesicarium*, or the *Halicacabus* of *Camerarius*. The Flowers Seed-vessels and Seed surround the Stalks Whorle-fashion like those of common Chickweed.

Paul Boccone found it near *Catanea*, in wet and marshy Places.

Caspar Bauhinus describes it thus: It has, says he, a small oblong Root, furnished with hairy Fibres: Thick-set slender Stalks spreading upon the Ground, and then supporting themselves with Fibres at the Intervals betwixt the Joints: Oblong, narrow, pale Leaves growing in Couples over against one another; and small Flowers joined together like Clusters of Grapes, and resting upon very

slender Foot-stalks, to which succeeds small Seed.

10. *Alfine Americana, Auriculæ Uræ foliis.*
Plum. American Chickweed, with Bears-ear Leaves.

11. *Alfine littoralis, foliis Portulacæ. C. B. Pin. 251.* Littoral Chickweed, with Purslane Leaves. *Alfines quoddam genus, Pelagium & littorale. Clus. Hist. 184.*

12. *Alfine verna, glabra, floribus umbellatis, albis.* Vernal Smooth Chickweed, bearing white Flowers in an Umbel. *Caryophyllus arvensis, umbelliferus. J. B. 3. 361.* *Caryophyllus arvensis, umbellatus, folio glabro. C. B. Pin. 210.* *Holosteum caryophylleum, arvense. Tabern. Icon. 233.*

This Plant has a hard and fibrous Root: The Leaves are thicker, broader and harder than those of Mouse-ear with the beautiful Flower, and not so sharp-pointed. The Stalks are slender, small and round, a Span long, parted by three or four Joints, out of which rise two Leaves opposite to one another, equal to the lower ones which rise from the Root. On the Tops stand six or seven, more or fewer, white upright Flowers on long Foot-stalks, like the Flowers of that. When these decay, they are succeeded by small long Heads containing small Seed, and bending downwards.

It is to be met with in Corn-fields in several Countries beyond Sea, but is not to be found, that I know of, in England.

13. *Alfine verna, glabra. Bot. Monsp.*
Smooth vernal Chickweed.

14. *Alfine pratensis, gramineo folio, ampliore.* Meadow Chickweed, with a large Grass Leaf. *Caryophyllus arvensis glaber, flore majore. C. B. Pin. 201.* *Gramen Fuchsii five Leucanthemon. J. B. 3. 361.* *Gramen floridum, majus. Tabern. Icon. 232.* Stitchwort.

It creeps with a little feeble jointed Root on the Surface of the Ground, but sending Fibres deep down. The Stalks are naked, square, nine Inches, and a Cubit high, parted by Joints, at each of which are set two grassy, sharp and stiff Leaves: Out of whose Wings come forth small hairy Foot-stalks, on which stand beautiful white Flowers, composed of five Leaves deeply cut and striped, in the Middle of which are saffron Chives. Under the whole Flower stand five Leaves of the
T 1 1 2 2 gaping

aping Cup. A Head follows shaped like a Hat, made up of six Parts, and containing the Seed. Thus far *Baubinus* : To which add :

That the Stalk at Top is divided into two Branches, each of which is again divided into other two Branches, &c. At each Divarication of the Stalk and Branches rises one Flower out of the Angle, supported by a long Foot-stalk : Which Situation of the Flowers is common to the *Caryophyllus holosteus arvensis*, and other Plants of this Genus.

It grows in Woods, Hedges and Thickets, and flowers in the Spring.

15. *Aline pratenfis*, gramineo folio angustiore. Meadow Chickweed, with a narrower Spats Leaf. *Caryophyllus arvensis*, glaber, flore minore. C. B. Pin. 210. *Gramini Eufisii Leucanthemo affinis*. & *similis plantae*. J. B. 3. 361. *Gramen floridum minus*. Tabern. Icon. 232. The lesser Stitchwort.

This Species flowers later than the former, and has smaller square Sprays, with a strong and tough middle Nerve. The Leaves, which grow in Couples opposite to one another, are shorter and greener than in the common *Leucanthemum*. The Stalks observe the same Division, and the Flowers the same Situation with its Flowers ; but they are much smaller, and stand upon very long Foot-stalks : Besides, they consist of five Leaves, which are cut so very deep, that to a careless Observer they might seem to be ten, with reddish Chives. The Flower-cup has five sharp Leaves. The Heads are smaller and oblong. The Root is in like Manner fibrous and creeping.

It grows in Pastures, among Thorns, Briars, and Broom, especially in a sandy Soil.

According to the Soil where it grows, it changes its Countenance remarkably ; for on the Banks of Ditches in the *Ile of Ely*, it has the grey Colour of *Clove-gilly-flowers*, and stronger and shorter Stalks.

16. *Aline aquatica*, media. C. B. Pin. 251. Middle, water Chickweed. *Aline longifolia*, uliginosis proveniens locis. J. B. 3. 365. *Aline fontana*. Tabern. Icon. 712.

This Species has small creeping Roots. The Stalks are a Foot high, square and feeble ; at whose Joints are set Leaves in Pairs,

equal to the Leaves of Hedge *Myssop*, not dented round the Edges, ending in a Point, smooth, with one Nerve running along the Middle, broader about the Middle than the Leaves of *Gramen Leucanthemum minus*, but has Flowers pretty like, or like those of common *Chickweed*, which hang at the Tops of the Branches, and are Star-fashioned and white. But the Leaves encompassing the Flower are five in Number, and green ; but the white ones are ten in Number, with Chives beside. J. B.

It grows commonly in stinking Marshes and Brooks.

There are not really ten Leaves in the Flower of this Plant, but only five, which are cut so very deep that they seem to be ten, and may easily impose upon an unwary Observer.

17. *Aline palustris*, Serpylli folio. *Baccarior. plant.* 48. Marsh Chickweed, with a Mother of Thyme Leaf.

It has small fleshy Leaves, narrower than those of *Gratiola Hyssopifolia*, which are placed in Pairs over against one another at the Joints of the Stalks that lie upon the Ground. The Flowers, which are reddish, stand in the Bosoms of the Leaves ; to which succeed small Seed-vessels and Seed like those of common *Chickweed*. The whole Plant scarce spreads half a Span.

It grows in marshy Places about *Syracuse*.

18. *Aline Alpina*, Serpilli folio, multicaulis & multiflora. Chickweed of the Alps, with a Mother of Thyme Leaf, many Stalks, and many Flowers.

19. *Aline minor*, multicaulis. C. B. Pin. 250. Small Chickweed, with many Stalks. *Aline minima*. J. B. 3. 364. *Dod. Pempt.* 30.

In its whole Make it resembles common *Chickweed* ; but is every way less, and furnished with tender hairy Branches. It has very small Leaves, smaller than those of common *Chickweed*, blackish, somewhat hairy, standing upon a very short Foot-stalk ; and has likewise a white Flower. The Seed contained in the Seed-vessels is very small and reddish.

The Leaves of this Plant resemble the Leaves of *Mother of Thyme* ; the Flower consists of five undivided Leaves, by which

it is easily distinguished both from the greater and the smaller *Chickweed*.

It is found in the same Places with the former, and grows not seldom on Walls.

20. *Alysne Bononiensis*, non aculeata. *Bocc. ravior. Plant.* 22. *Bononian Chickweed*, not prickly.

It lies flat upon the Ground, and is furnished with small, stiff, jointed Stalks divided into many Branches; around which adhere small narrow Leaves, standing thick and close to one another, like the Leaves of *Tithymalus leptophyllus*, which contract when the Plant is old, and seem as if they were prickly. The Flowers are small and whitish, and the Seed-vessels like the others.

The Author observed this at *Bononia*, and near the Village called *Chantilly*.

21. *Alysne tenuifolia*. *J. B. 3. 364.* *Thin-leav'd Chickweed*.

It has a great many whitish, ligneous, and parted Roots; from which rise Stalks a Palm and a Palm and a half high, and sometimes higher, round and branched; at the Knots or Joints of which are set Leaves in Pairs, like the Leaves of *Tunica minima*, long and thin. The Flowers hang at the Tops of the Branches, at longish Foot-stalks rising out of the Bosoms of the Leaves, smaller than the Flowers of the third *Chickweed* of *Fuchsius*, white and Star-fashioned. This Plant has no discernible Taste. When it flowers it is like *Linum catharticum*.

It grows at the Bottom of *Gogmagog*, and on *Triplow Heath* near *Cambridge*, and elsewhere in the same County. *J. Bauhinus* found it in the Fields about *Montpelier*, flowering in the Month of *April*.

22. *Alysne Alpina*, Junceo folio. *C. B. Pin. 251. Prodr. 119.* *Chickweed of the Alps*, with a Rush Leaf.

It rises a Palm high: Its Stalk is divided in two immediately from the Root, and these again into other two shorter Branches; between which rises one or two Stalks half a Palm high, bearing one Flower on the Top, and this sits upon one or two Foot-stalks, upon each one, and that white, five-leav'd, pretty large, and rising out of a Flower-cup. It has capillaceous, green and stiff Leaves, irregularly placed, and flowers in *July*.

It is found on the Mountains in *Switzerland* and about *Geneva*. *C. B.* Mr. *Ray* could not find it there.

23. *Alysne tenuifolia*, muscosa. *C. B. Pin. 251.* *Thin-leav'd mossy Chickweed*. *Alysne muscosa quibusdam. J. B. 3. 364.*

This little Plant is very tender and feeble, covering the Surface of the Ground like Moss, with little Stalks a Palm or two Palms long, sometimes two or three Inches long, very small and branched, at whose Joints are placed Leaves an Inch, and an Inch and a half long, sometimes scarce half an Inch, small like a Thread, of a pleasant green Colour. The Flowers are very small and white, consisting of four little white Chives standing upon a greenish Knot. The Flowers are followed by small Cups, which are full of bay or dark red Seed, almost like that of *Purslane*. The Root is slender and uselefs, and fibrous at the Joints. You may taste somewhat that is bitterish in this Plant.

It loves the shady and wet Tops of Mountains. Mr. *Ray* observed it on the Mountains of *Stiria*, and also on *Fura* and *Saleva* near *Geneva* in wet and shady Places, beside Springs and Wells. It flowers in *July* and *August*.

24. *Alysne saxatilis*, Laricis folio, major, & majori flore. *Great Rock Chickweed*, with a Larch Leaf, and a large Flower. *Auricula muris pulchro flore, folio tenuissimo. J. B. 3. 360.* *An Alysne Caryophylloides tenuifolia, montana, Lini flore. Raii.*

This Plant has a lively and ligneous Root. It has many small Stalks or Branches, as in the *Pinks*, which are ligneous, and covered with an ash-coloured Bark, and divided by thick-set Joints; at each of which are set Leaves in Pairs over against one another, as in the *Tunica minima*, or purple *Spurrey*, and like *Larch* Leaves. The Stalks are branched, smooth below, and hairy above, bearing large white Flowers at Top, that rest upon long hairy Foot-stalks, with five Leaves striped within, roundish, and split on the Borders as in the *Lychnis*; so that the whole Flower resembles *Flax* Flower, but does not fall quickly, but continues long, containing many yellowish *Stamina*, or from white tending to an herby Colour. The Cup is hairy and five-leav'd, expanded like the Flower. The Seed-vessel is longish and thick.

It flower'd in the End of June on the Hill of Thuir.

25. *Aline saxatilis*, *Laricis folio*, minor, & minore flore. Small, Rock, Larch-leav'd Chickweed, with a small Flower. *Caryophyllus saxifragus, foliis tenuissimis, pulchro flore albo*. Bot. Monsp.

26. *Aline saxatilis* & multiflora, capillaceo folio. Rock and many-flower'd Chickweed, with a capillaceous Leaf.

27. *Aline palustris*, capillaceo folio, minima. The smallest Marsh Chickweed, with a capillaceous Leaf.

28. *Aline Alpina*, subhirsuta, *Linariae folio*. Hairy Chickweed of the Alps, with a Toad-flar Leaf.

29. *Aline Alpina*, subhirsuta, *Linariae folio*, glabro. Hairy Chickweed of the Alps, with a smooth Toad-flar Leaf.

30. *Aline maritima*, longius radicata, *Herniariae foliis*. Bocc. rarior. Plant. 18. Spreading-rooted Chickweed, with a Rupturewort Leaf.

This Plant has a long, thick and hard Root, like those of the Campions and Pinks, and as it were branched by Appendages growing at them, or rather forked many Ways: From these spring several Leaves in a thick Turf, around which are set several Leaves. The Flowers and Seeds are exactly like those of common Chickweed. The Author, Bocccone, did not observe the Seed-vessels.

Bocccone paints another Plant of this Kind, which he calls *Aline maritima*, altera, angustis foliis.

31. *Aline littoralis*, *Graminea*. Bot. Monsp. app. Littoral grassy Chickweed.

32. *Aline pusilla*, *graminea*, flore tetrapetalo. Small grassy Chickweed, with a four-leav'd Flower. *Saxifraga graminea, pusilla, flore parvo, tetrapetalo*. Raii Hist. 1026. *Caryophyllus minimus, muscosus, nostras*. Park. Theat. 1340. Pearl-wort.

The Leaves at the Root are ranged in a Circle and very narrow, grassy, smooth, of a dark green Colour, pointed, and half an Inch long. Several Stalks come from the same Root, which are half a Palm long, small, round, feeble, lying upon the Ground, branched, smooth, parted by several Joints, and begirt with a Couple of Leaves at each

Joint. The Branches always grow out of the alternate Wings of the Leaves: The Flowers likewise come forth from the Wings of the Leaves alternately, growing single, supported by long small Foot-stalks, five-leav'd, being white, very small, and sitting in a four-leav'd Cup. To these succeeds a round Seed-vessel, like that of common Chickweed, which becomes membranous by Age, pellucid, and full of very small reddish Seeds. The Root, which is sometimes single and sometimes divided, is capillated. The Plant is acrid and somewhat hot to the Taste.

It is often found in oozy Places, in barren Grounds, and in Garden Plats; and flowers almost the whole Summer.

The Flower is generally maimed, as wanting those little white Leaves which belong to a Flower; for which Reason it is designed by the Title of *flore herbido* & *muscoso*, in the Catalogue of Cambridge Plants.

33. *Aline annua*, *graminea*, foliis obscure virentibus, flore tetrapetalo. Annual grassy Chickweed, with faded green Leaves, and a four-leav'd Flower. *Saxifraga Anglica*, annua, *Alsinifolia*. D. Plot. Hist. Oxon.

From a small fibrous Root, it spreads several small feeble Stalks, an Inch and a half long, and jointed, and begirt with small narrow Leaves at each Joint, as in the former. From the upper Joints towards the Ends of the Stalks come forth herby four-leav'd Flowers, with a membranous Seed-vessel inclosed in those Leaves as in a Flower-cup.

It differs from the former in its Leaves and Stalks, which are of a nasty green, or dark brown Colour; in its annual Root; and that it does not creep as that does, nor shoots down Roots from the Joints of the Stalks.

It grows in the Walks in Baliol Colledge Garden at Cambridge, and in the fallow Grounds about Haddington and Cowly in Oxfordshire.

34. *Aline palustris tenuissimis foliis*, five *Saxifraga palustris*, *Alsinifolia*. Ger. emac. Raii Hist. 1032. This is the *Saxifraga palustris Anglica* of Parkinson.

The Root is white, divided into many Parts, and furnished with pretty big Fibres. The Leaves at the Root are grassy, very narrow,

narrow, and an Inch or an Inch and a half long. From the same Root rise several slender, feeble, smooth Stalks, a Palm high, and parted by Joints. At every Joint are set a Couple of Leaves over against one another, which are very narrow, short and sharp pointed, the under Ones a Digit long, and the upper very short, while there sit in the Wings of the Leaves little Balls of very small Leaves like the Buds of Branches. At the Tops of the Stalks and Branches come forth Flowers like those of common *Chickweed*, with slender Stalks half an Inch long, larger than one would expect from so small a Plant, white, consisting of five hollow sharp-pointed Leaves, and coming out of a five-leav'd Flower-cup: Ten white *Stamina* in the Middle of the Flower, with Chives of the same Colour, surround a *Chickweed* Head, which contains small, faded red Seeds.

It flowers in Marshes in the Month of July.

35. *Aline caryophylloides*, subhirsuta, capillaceo folio, pulchro flore albo. Pink-leav'd, hairy *Chickweed*, with a capillaceous Leaf, and a beautiful white Flower.

36. *Aline pusilla*, pulchro flore, folio tenuissimis nostras, seu *Saxifraga caryophylloides*, pusilla, flore albo, pulchello. *Raii Hist.* 1033. Tiny English *Chickweed*, with a beautiful flower, and a very small Leaf. *Aline Alpina*, glabra. *Par. Bar.*

From a single scurulous Root, it spreads many small, round, feeble, jointed Stalks lying on the Ground, which are begirt with two opposite Leaves at the Joints, which are narrow, scarce half a Finger broad, gradually ending in a sharp Point from a broad Bottom, after the Manner of *Pink* Leaves; spreading into several Branches at Top, which bear little, white, beautiful, five-leav'd Flowers, which rest upon long Foot-stalks, placed in the Divarications of the Stalk and Branches, in the same Manner as the Flowers of common *Chickweed*, with reddish Chives within. To these succeed Seed-vessels resembling those of common *Chickweed*, and full of small reddish Seed. It has no remarkable either Taste or Smell.

It grows in great Plenty on the Hills in *Yorkshire* and *Derbyshire*.

37. *Aline minima*, Lusitanica, verna, capirulis echinatis. The smallest, Portuguese, vernal *Chickweed*, with prickly Heads.

38. *Aline minima*, flore fugaci. The smallest *Chickweed*, with a quickly fading flower.

It has a white, fibrous or capillary Root, half a Line long. The lower Leaves are ranged in a Circle, about half an Inch long, and half a Line broad, smooth, polished, and insipid. The Stalks are tender and branched, parted by small Knots, lying upon the Ground, and two Inches long. Out of their Wings, and on the Tops come forth very tender Foot-stalks, which generally bear but one Flower composed of four white Leaves, which are oval and pointed, $\frac{1}{4}$ of a Line long, and about half a Line broad. The Flower-cup is also composed of four green Leaves, hollow like a Spoon, and somewhat larger than the Leaves of the Flowers. The *Stamina* are very short, and each of them tipped with a white Chive. The Pointal, which ends in a sort of a whitish Cross, turns to a membranous Fruit, of a conical Figure, $1\frac{1}{4}$ of a Line long, which opens in four Places, and sometimes in five, sheds many very small, blackish, round Seeds, adhering to a certain Placenta. The Leaves of the Flowers perish very quickly, so that there remain only the Leaves of the Cup, which the Unwary take for the Flower.

39. *Aline montana*, capillaceo folio. *C. B. Pin.* 251. Mountain *Chickweed*, with a capillaceous Leaf. *Aline saxifraga*, angustifolia, minima, montana. *Col. Part.* 1. 290.

It grows in the Clefts of ragged Rocks, and in their shady Cavities, where this tender small Plant is shelter'd from the Violence of Rain Water, and bears narrow, oblong Leaves, much resembling the great *Saxifrage* of *Matthiolum*, but somewhat broader, whitish, and softer, growing in Couples at the Joints of the Tendrels; out of whose Bosom are Wings, and on the Top Flowers, which are white, and composed of four small Leaves, with many white and very small *Stamina* within, and flowering in the End of May or Beginning of June. To which succeed almost orbicular and very small Bags, about the Bigness of *Millet* Seed, cartilaginous, and

and divided into five Borders, after the Manner of *Ocymoides*, in which is contained small, dark, yellowish Seed.

Columna observed another like this, but twice as big, on the Walls of *Naples* next to the Sea, flowering about the End of *Autumn*, having a delightful red Flower, with an oblong sharp-pointed Fruit, containing small Seed, in Colour like that of common *Chickweed*. It is a creeping Plant, but raises it self up when it flowers; when the *West* Wind blows, it is washed with the Waves, and seems to love them.

40. *Alfine Spergula dicta, major. C. B. Pin. 251. Spergula. f. B. 3. 722. Dod. Pompe. 537. Spurrey.*

This Plant is a Palm or a Palm and a half high, and sometimes even rises a Cubit high; with many round, somewhat hairy, branched, and very much jointed Stalks: At each Joint are set many Leaves surrounding the Stalk like Rays as in *Ladies-Bedstraw*, and equally small, but not quite so stiff, but flaccid. The upper Leaves with their little Foot-stalks are a little hairy, furrowed underneath, and have no perceivable Taste. On the Tops of the Branches are many Heads, each furnished with a Foot-stalk (one or two of which hangs downwards, the rest stand upright, as in the *Holosteum Caryophyllum arvense*. Tab.) resembling those of common *Chickweed*, and hairy, which spread out into small white Flowers, composed of five whole Leaves, with yellow Chives: To which succeed *Chickweed* Seed-vessels, containing small black Seeds. The Root is single, straight, and furnished with white Fibres.

It is too common almost every where among the Corn.

41. *Alfine Spergulae facie, media. C. B. Pin. 251. Middle Chickweed, with a Spurrey Countenance. Spergula marina, nostras. J. B. 3. 472. Spergula marina. Lugd. 1385. This is the Sagina Spergula, minor of Parkinson. Sea-Spurrey.*

It has a thicker Root than *Inland Spurrey*, from which also rise many Stalks a Palm, and a Foot high; at whose Joints are set Leaves in a Circle like Rays, like those of the mentioned *Spurrey*, pretty thick and saltish. On the Tops of the Branches the Flowers break out of hairy Cups, of a like Form

also, and of a purplish Colour. The Seed-vessels are broad above, and narrow underneath, and contain foliaceous Seed.

Mr. Ray says, That it is so very like purple *Spurrey* that grows in the Inland, that he once was of opinion, that all the Difference was owing to the different Soils; but that he changed his Mind after he observed its Seed to be flat and even.

It grows every where in salt Marshes near the Sea.

42. *Alfine Spergulae facie, minor, five Spergula minor, flosculo subcaruleo. C. B. Pin. 251. Small Chickweed, with a Spurrey Look; or small Spurrey, with a little bluish Flower. Spergula purpurea. J. B. 3. 722. This is the Sagina Spergula minima of Parkinson. Purple Spurrey.*

This Plant has a long thickish Root, with some Shoots growing at the Sides of it, and tasting like *Beets*. The Stalks are many, spreading on the Ground, nine Inches long, divided into Branches, at each Joint of which are set Star-fashioned Leaves, which are narrow, sharp-pointed, shorter than those of common *Spurrey*, of a faded green Colour, about half an Inch long, commonly smooth, seldom hairy, about which are placed as it were two white Scales, as in *Polygonum*. The Taste is herby. At each Divarication of the Branches stands a Flower, as also on the Tops of the Stalks at each Joint, which are of a purple Colour, and resemble the Flowers of *Anagallis phanicea*, consisting of five Leaves, some upright and open, others nodding and shut, standing in a five-leav'd, oblong, herby and somewhat hairy Flower-cup; and resting upon oblong hairy Foot-stalks. The Seed is contained in conoidal Seed-vessels, which gape into three Keels when ripe, and is very small like Sand, duskyish or reddish.

It is common in sandy and gravelly Places; and flowers in the Months of *May* and *June*.

43. *Alfine Spergulae facie, minima, seminibus nudis. Spurrey-like Chickweed, with naked Seeds.*

This is a very small Plant, with a white Flower, and no membranous Circle about the Seeds.

It is found in the Gaps betwixt *Bondy* and the Castle of *Raincy*.

44. *Alfine*

44. *Aline maritima*, supina, villosa, foliis lanceolatis. Low, hairy, maritime Chickweed, with Lancet Leaves. *Anthyllis*. P. Alp. Exor. 157.

This is a very small Plant, a Palm high, and very shrubby: For from the Root it puts forth several long, slender, round, whitish Stalks, at least five in Number; from which come forth many small short Shoots at small Distances, begin round with many very small Leaves, of the Figure and Size of those of *Lentils*, which appears a very thick Shrub both from the Multitude of the Stalks and of the Leaves that encompass them, and grows in a Circle. On the Tops of the Shoots come forth small Flowers, to which, instead of Seeds, succeeds small, oblong, round Fruit, of the Size and Shape of *Wheat*. The whole Plant is white, and is salt to the Taste: But the Root is long, small, jointed and white, having also the same salt Taste.

It grows on the Coasts of the Island of *Candy*.

45. *Aline maritima*, supina, foliis Chamæsyces. Low maritime Chickweed, with petty Spurge Leaves. *Anthyllis maritima*, *Chamæsyce similis*. C. B. Pin. 282. *Anthyllis Valentina*. Clus. Hist. clxxxvi.

From one Root it puts forth many little Stalks or Twigs nine Inches long, lying upon the Ground, branched and reddish. The Leaves are small, resembling those of *Lentils*, or rather petty Spurge, (which the whole Plant so much resembles, that any one at first Sight would take it for petty Spurge, but if you examine it accurately, you will find that it wants the milky Juice) and generally bestrewed, as well as the Branches, with a certain saltish Dust, which tastes saltish. Among the Leaves come forth small Flowers consisting of four Leaves of a whitish purple Colour. It has a single blackish Root.

Clusius, who is Author of the Description, never saw this Plant except in the Ditches round the City of *Valencia* in *Spain*, near that Gate which looks to the Royal Castle.

46. *Aline maritima*, supina, foliis quasi vermiculatis. Low, maritime Chickweed, with Leaves as it were chequer'd.

47. *Aline maritima*, Hispanica, fruticosa, foliis quasi vermiculatis. Maritime Spanish, shrubby Chickweed, with Leaves as it were chequer'd.

48. *Aline Samia*, media, villosa tota. Middle Samian Chickweed, all over hairy.

49. *Aline Samia graveolens*, saxatilis & verna, foliis lanceolatis. Samian stinking, Rock and vernal Chickweed, with Lancet Leaves.

50. *Aline verna*, hirsuta, flore albo. Vernal hairy Chickweed, with a white Flower.

51. *Aline verna*, hirsuta, flore suaverubente. Vernal hairy Chickweed, with a fine red Flower.

52. *Aline orientalis*, Caryophylli folio, flore magno, in capitulum congesto. Oriental Chickweed, with a Pink Leaf, and a large Flower gathered into a Head.

53. *Aline orientalis*, Caryophylli folio, flore magno, sparso. Oriental Chickweed, with a Pink Leaf, and a large scattering Flower.

54. *Aline orientalis*, Caryophylli folio, viscosa, flore magno, albo. Oriental clammy Chickweed, with a large white Flower.

55. *Aline orientalis*, Caryophylli folio, flore parvo, albo. Oriental Chickweed, with a Pink Leaf, and a small white Flower.

56. *Aline orientalis*, Caryophylli folio, angustissimo, & humilior. Oriental lower Chickweed, with a very narrow Pink Leaf.

57. *Aline orientalis*, fruticosa, Camphorata folio. Oriental shrub Chickweed, with a stinking Ground-pine Leaf.

58. *Aline orientalis*, fruticosa, Laricis folio, floribus in capitulum congestis. Oriental shrub Chickweed, with a Larch Leaf, and Flowers gathered into a Head.

59. *Aline orientalis*, laxatilis, fruticosa, foliis & floribus verticillatis. Oriental thund Rock Chickweed, with whorled Leaves and Flowers.

Chickweed is called *Aline* from *Δρυς* *Lycum* a Grove, quod luce: & umbrosa loca amat, because it loves Groves and shady Places. *Pliny* says, *Aline*, quam quidam *Adiosforin* appellant, nascitur in lucis, unde & *Aline* dicta. There is but one Species of it mentioned by *Dioscorides* and *Pliny*, and none at all by *Theophrastus*; so that one would wonder at its coming to, within one of sixty Species;

but the Antients were not so curious and nice as the Moderns, either in classing, arranging or numbring of Plants.

The Species used in the Shops is generally the *Alfina media* C. *Baubini*; or the *Alfina vulgaris sive morfus Gallina*; which is our fourth Species.

This, says C. *Hoffman*, is cooling and moistening with an aqueous Essence. Of old it was used in all external Heat or Warmth, as also in moderate *Erysipelas*. Our Custom is to give the distilled Water to Children that have Fits. Some likewise use it in consumptive Cases.

It has the same Qualities with *Pellitory of the Wall*, unless that it is not astringent. It is thought to nourish notably, and therefore is accounted a good Diet for such as labour under an Atrophy and Consumption. *Schrod.*

The Juice of this Plant is given by our Women in Milk to Children that are troubled with Gripes. It is a healthful Food taken with other Specificks, and reduced to a Gruel or Pottage, for such as labour under an Atrophy. *Hoffman*.

Dioscorides says, That it is proper to cure any Sort of Inflammation, and is withal astringent: But *Galen* and *Oribasius* say, That *Chickweed* has no astringent Quality in it. *Paulus Aegineta* and *Aetius* agree as to its cooling Quality, but say nothing of its binding: It serves therefore for all Manner of Heat both internal and external, to cool and temper the Blood inflamed in Agues, or the Heat of the Liver and Stomach breaking out on the Lips, to recover a lost Appetite, and strengthen a weak one; it is used in hectic Fevers, and to allay the Heat of the Back and Urine. *Galen*, and after him others, say, That it has the same Virtues with *Pellitory of the Wall*; but it is commonly found to be as efficacious as *Purslane*, to all the Purposes for which it is applied, except only for Salads, &c. The Herb bruised, or the Juice applied with Cloths or Sponges dipped therein to the Region of the Liver, and as they dry to be moistened afresh, wonderfully tempers the Heat of the Liver, and is likewise effectual for all hot Impostumes and Swellings whatsoever, as St. *Anthony's Fire* and the like, and for Redness in the Face, Wheales, Pusles, Pimples, Itches or Scabs; and for these Purposes the Juice may either

be simply applied, or boiled with Hog's-lard and applied: The same is said to cure Cramps, Convulsions and Palseys, applied in the same Manner.

The Juice or distilled Water dropped into the Eyes, cures Heat and Redness in them; and is of good Effect to ease Pains, Heat, and Sharpness of the Blood in the Piles; and in general, eases all Pains in the Body occasioned by Heat: It is likewise used in hot and virulent Ulcers and Sores in the Privy Parts of Man or Woman, in the Leggs or elsewhere. The Leaves boiled with *Marsh Mal-lows*, and made up into a Poultis with *Fenugreek* and Lintseed applied to Tumours or Impostumes, ripens and breaks them, or allays the Swelling and eases the Pain: The same also comforts the Sinews when shrunk with Cramps, and makes them supple and pliant. Some say, That while the Herb is boiling with Hog's-lard to make a Salve for sore Leggs, if one stir it with one's bare Finger it will not do any Harm: Any one that has a Mind may try the Experiment. When a Sinew is strained, the following is a sovereign Remedy: Boil a Handful of *Chickweed* and a Handful of red *Rose Leaves* dried, in a Quart of *Muscadine*, till a fourth Part be consumed; then put to them a Pint of the Oil of Trotters or Sheep's-feet, let them boil a good while, still stirring them well, which being strained, anoint the Part affected therewith warm at a Fire, rubbing it well with your Hand, and also bind some of the Herb, if you please, to the Place; do so again the next Morning and Evening, and by the Blessing of God you will find Ease and Relief. *Park.*

Chickweed is moistening, cooling, lenitive, thickening, stops the immoderate Flux of the Hemorrhoids, and eases their Pain; taking the Decoction of it, and applying it outwardly.

It contains abundance of Phlegm and Oil, and but little Salt. *Lemery.*

Chickweed is thus analysed by Mr. *Tournefort*. It has, says he, an herby Taste, that is a little saltish. *Cordus* observed something nitrous in it; but since it reddens blue Paper pretty much, I am of opinion, that its Salt has a good deal of Affinity with *Sal ammoniac*; but which in this Plant is dissolved in a great Quantity of Phlegm. *John Bauhin.*

linus affirms, That the distilled Water of *Chickweed*, or the Infusion of it in Wine, recovers such as are very much extenuated, after heavy Sickneses; and *Schroder* commends it much in Consumptions. The Use of this same Plant preserves Children from convulsive Fits. A Dram of its Powder is given for the Falling-sickness. *Solenander* says, That this Powder laid upon the Piles stops the immoderate Flux of them, and eases their Pain. The Juice of *Chickweed* is vulnerary and deterfive, as well as the *Sal ammoniac*, which is excellent for cleansing the Mouth and taking away Inflammations in it. For Spitting of Blood, the Patients are ordered to eat Amulets made with this Herb minced small, instead of *Parsley*. Applied to the Breasts, it dissolves the coagulated Milk, and dissipates the too great Quantity of that Liquor. With all these Vertues we may reconcile that of cooling, which is attributed to *Chickweed*: For the most Part of Remedies do not cool otherwise than by restoring the ordinary Velocity of the Blood, which upon its being disordered in the *Viscera*, stagnates there, and ferments the more powerfully, and thereby heats all the neighbouring Parts. Openers are capable of cooling in this Sense, since they open the Conduits or Canals through which the Liquors ought to circulate. The Antients who, in Remedies, inquired more into the Effects than the Causes, ought not to be blamed for calling the most Part of those cooling, which are proper to increase the Motion of the Humours. Every body knows, That *Chickweed* is commonly used to restore the Appetite in *Canary-birds*, *Linnets*, and other Birds kept in Cages: This is no new Use of this Plant; for *Tragus*, *Anguillara* and several Authors have mentioned it.

GENUS IX.

Alfinastrum, Bastard Chickweed.

Bastard Chickweed is a Plant that differs from *Chickweed* in a one-leav'd Flower-cup, and from *Campion* in a Rose-Flower.

The Species of *Bastard Chickweed* are,
1. *Alfinastrum Gratiolæ folio*. Bastard Chickweed, with a Water-hyssop Leaf.

2. *Alfinastrum Gallii folio*. Bastard Chickweed, with a Ladies-bedstraw Leaf.

This Plant is called *Alfinastrum* from its Resemblance of *Alfne*; which is all we can say of it.

TABLE CXXVII. Fig. 3.

GENUS X.

Myosotis, Mouse-ear.

Mouse-ear is a Plant with a Rose-Flower A, consisting of many Leaves placed orbicularly B: Out of whose Flower cup C, rises the Pointal D, which afterwards turns to a Fruit E, resembling an Ox's Horn, gaping at the Top F, and full of small Seeds, which are generally roundish H, and fixed to a Placenta G.

The Species of *Mouse-ear* are,

1. *Myosotis Alpina, latifolia*. Broad-leav'd *Mouse-ear* of the Alps. *Caryophyllus holostius*, *Alpinus latifolius*. C. B. Pin. 210. Prodr. 104. This is the *Caryophyllus Alpinus, latifolius*. Park. Mountain broad-leav'd Pink.

This first Species has a small, white, fibrous, creeping Root, from which rise several bending, hairy Stalks, three or four Inches long, with two small, broad, and somewhat round, pointed, hairy, thick Leaves at each Joint; and from thence upwards come forth small Foot-stalks bearing each of them a large, white, five-leav'd Flower, standing in a green Husk, on which stands afterwards a long Husk containing the Seed.

2. *Myosotis tomentosa, Linariæ folio ampliore*. Flocky *Mouse-ear*, with a large Toad-flax Leaf. *Caryophyllus holostius, tomentosus, latifolius*. C. B. Pin. 210. Prodr. 104.

The whole Plant is covered with white, soft and thick Flox, insomuch that it seems to be nothing else but Flox. The Stalks, which are jointed, and nine Inches high, bear two Leaves at each Joint, placed over against

one another, as large as the Leaves of *Mouſe-ear* with the beautiful Flower, and not unlike in Shape, excepting only the Softneſs with the Flox; out of whoſe Boſom ariſe Branches. The higheſt Stalk is divided into ſeveral ſmall Branches, on each of which grows a white Flower, like that of the *Auricula muris ſpecioſa flore*. J. B. Their Flower-cups are likewiſe flocky, but membranous within, and ſhine with a Silver or Pearl Brightneſs. At the Diviſion of the Branches are likewiſe very ſhort, Silver-coloured Leaves.

This Species was brought hither from *Italy*; but we are not told where its native Soil is.

3. *Myſotis tomentosa*, *Linariæ folio angustiore*. Flocky *Mouſe-ear*, with a narrow *Toad-flax* Leaf. *Caryophyllus, holoſtium, tomentosus, angustifolius*. C. B. Pin. 210. Prodr. 104. *Caryophyllus holoſtium, tomentosus*. J. B. 3. 360. This is the *Caryophyllus angustifolius, tomentosus* of *Parkinson*. Hoary narrow-leav'd *Pink*.

This Plant has Stalks not a Palm long, ſmall, round, and jointed underneath; naked and almoſt ſmooth above; which are preſently divided into very ſhort Branches riſing out of the Boſom of the Wings, and placed over againſt one another. The Leaves are ſomewhat oblong, very narrow, turning back, ſoft by Reaſon of the Flox, and of a whitish green Colour. The Stalk ends in three Foot-stalks, which are oblong, unequal in Length, and ſupported by two Leaves, each of which Foot-stalks ſuſtains a green Flower-cup, in which ſtands a Flower, which is white, and five-leav'd.

Albinus obſerved this Plant in *Granada* at the Foot of a Mountain, growing in great Plenty.

4. *Myſotis incana, repens*. Hoary, creeping *Mouſe-ear*. *Lychnis incana, repens*. C. B. Pin. 206. *Ocymoides Lychnitis, reptante radice*. J. B. 3. 353. *Ocymoides Lychnitis*. Col. Phytob. App. 20.

This Plant has a very ſlender Root, ſhooting but a little down, and creeping in a Circle, from which riſe ſeveral Twigs or Sprays, which are hoary, round and hairy, having two ſmall Leaves at every Joint, which are ſmaller below, and larger at the Middle of

the Twig, (which happens otherwiſe in Plants which have Leaves immediately from the Root before the Stalk riſes, according to *Theophrastus*) which are hairy, fleſhy, hoary, like thoſe of *Campion*, but in Form and Size like thoſe of *Ocymoides Polemonium*. The Flowers come forth in *April* and *May*, as in the other Species, and are white, compoſed of five ſplit Leaves, and containing within them five yellow *Stamina*. In *June* it bears dark yellow, angular and hairy Seeds, in oblong, ſoft, cartilaginous Seed-veſſels: But theſe Seed-veſſels are not covered with Flower-cups as in *Campions*, but have only a Baſis compoſed of five ſmall Leaves, as in *Chickweed*. The Root is very lively, and therefore produces a great many Branches, and covers the Ground with its buſhy Head.

It grows wild on *Our Lady's Hill*, in moiſt and ſtony Places.

The Plant has a ſweet Taſte; and therefore the common *Herbaliſts* and ordinary Sort of Women do with Reaſon uſe it to increaſe Milk, and boil the Plant, as they do other Pot-herbs, in Broth, mixing Eggs with it, alſo a little Pepper and *Sweet Marjoram*; or (as others are wont to do) make it into a Cake, by the Uſe of which they affirm, That there comes a very great Plenty of Milk. From this Faculty of increaſing Milk the *Neapolitan Herbaliſts* commonly call it *Herba Lactaria*.

5. *Myſotis Hispanica ſegetum*. Spaniſh, Corn *Mouſe-ear*. *Lychnis ſegetum, minor*. C. B. Pin. 204. *Alſine corniculata*. Claſ. Hiſt. 184. J. B. 3. 359.

This Plant grows a Palm high, and conſiſts of one Stalk, which is divided into ſeveral Branches, jointed, ſlender, ſomewhat hairy, as in common *Chickweed*. The Leaves reſemble thoſe of *Chickweed*, but are a little longer, ſomewhat hairy alſo, oppoſite to one another, and coupled at Diſtances. In the Hollow of the Wings ſit whitish Flowers, to which ſucceed little membranous and transparent Horns, ſhaped like a Cock's Spur, and are ſound-by ſuch as handle them to be ſprinkled with a Sort of clammy Moiſture; in which is contained ſmall Seed, which becomes black when ripe. The Root is uſeleſs and annual. The whole Plant is inſipid.

It grows common among the Corn in the Fields about *Salamanca*. It bears Flowers in the Month of *May*, and gives ripe Seed in the same Month.

6. *Myosotis arvensis*, subhirsuta, flore majore. Somewhat hairy Field Mouse-ear, with a large Flower. *Caryophyllus, arvensis, hirsutus, flore majore*. C. B. Pin. 210. *Auricula Muris, pulchro flore albo*. J. B. 3. 360. *Holostium Caryophylleum*. Tabern. Icon. 233.

The jointed Root creeps under Ground, sending forth Fibres at the Joints, and putting forth Shoots. It spreads upon the Ground a great many round, hairy and feeble Stalks, begirt with two hairy Leaves opposite to one another at each Joint, that are narrower than the Leaves of *Mouse-ear Chickweed*, excepting those which are on the Flower-bearing Stalks, which are full as broad; encompassing the Stalks without Foot-stalks; which Stalks are divided into two Branches at Top, and each Branch into two Shoots, and each Shoot in Order divided again into other two, till you come to the End; a Flower being placed in the Angle of every Divarication, and resting upon an oblong Foot-stalk. Now the Flowers are large, equal to and like the Flowers of *Stitchwort*, consisting of five Leaves split in the Middle, striped, with many *Stamina* in the Center sustaining pale yellow Chives. The Flower-cup is likewise five-leav'd. The Leaves and the Flower-cups also are hairy.

It grows on the Banks of Earth about *Cambridge*, in the Plain near *Newmarket*, among Briars, in the Road to *London* between *Trumpington* and *Hawkston*, and beyond the Village called *Fulmere*, and in other Places in great Plenty. It flowers in the Summer.

7. *Myosotis arvensis, hirsuta, parvo flore*. Hairy Field Mouse-ear, with a small Flower. *Auricula muris quorundam, flore parvo, vasculo tenui, longo*. J. B. 3. 359.

8. *Myosotis hirsuta, altera, viscosa*. Another hairy, clammy Mouse-ear. *Alfine hirsuta, altera, viscosa*. C. B. Pin. 251. *Alfine spuria quarta*. Dod. Pempt. 31. This is the *Alfine hirsuta Myosotis latifolia praeocior*. Cat. Angl. The broader-leav'd Mouse-ear Chickweed.

This Plant has a fibrous Root, with very hairy Filaments; from which come several

Stalks a Palm, and sometimes half a Foot high, round, hairy and feeble, but generally upright, begirt with two opposite Leaves at Distances, of a pale-green Colour, branched towards the Bottom; towards the Tops the Stalks are parted into Pairs of Branches, and these again into other two lesser ones, with one Flower placed at each Division of the Stalk, in the very Corner of Divarication, on a very short Foot-stalk, contrary to what happens in *Chickweed*. The Flowers consist of five long narrow Leaves split at Top, the Slit not being so deep as in common *Chickweed*; with yellowish green *Stamina* within. To these succeed oblong Seed-vessels, which are somewhat crooked, pellucid when ripe, and containing a great many small, round, reddish Seeds. After the Flowers fall, the Seed immediately ripens, and falls out of the Seed-vessels which open of themselves. The whole Plant is a little clammy to the Touch.

9. *Myosotis hirsuta, minor*. Small hairy Mouse-ear. *Alfine hirsuta, minor*. C. B. Pin. 251.

10. *Myosotis arvensis, Polygonii folio*. Field Mouse-ear, with a Knot-grass Leaf.

11. *Myosotis Alpina, angustifolia, villosa & viscosa*. Narrow-leav'd, hairy and clammy Mouse-ear of the Alps.

12. *Myosotis Alpina, pumila, Myrtifolia*. Dwarf-leav'd, dwarf Mouse-ear of the Alps.

13. *Myosotis tenuissimo folio, rigido*. Mouse-ear with a very thin stiff Leaf.

14. *Myosotis Lusitanica, Linariae folio, magno flore*. Portuguese Mouse-ear, with a Toad-star Leaf, and a large Flower.

15. *Myosotis orientalis, flore maximo, fructu oblongo*. Oriental Mouse-ear, with a very large Flower, and an oblong Fruit.

16. *Myosotis orientalis, longissimo folio*. Oriental Mouse-ear, with a very long Leaf.

17. *Myosotis orientalis, perfoliata, Lychnidis folio*. Thorough-war oriental Mouse-ear, with a Campion Leaf.

Mouse-ear differs from *Chickweed* in the Form of its Fruit.

Myosotis comes from two Greek Words, *μυς* a Mouse, and *οτα* an Ear, which in English sounds Mouse-ear; because the Leaves of this Plant resemble the Ears of a Mouse.

This Plant is but little used in Physick, and therefore Authors are silent about its Qualities; only Mr. Lemery says, That it contains abundance of Oil, and a little Salt; that it is deresive, astringent and cooling; and that its Root is accounted a good Remedy for the *Fistula lachrymalis*. This is to be understood of the first Species particularly; the other Species may have the same Virtues.

J. Baubinus affirms, That the Conserve and Water of the Flowers of the 6th Species will cure the Falling-sickness, and that its Leaves applied outwardly, relieve such as are troubled with the Palsey.

TABLE CXXVIII. Fig. 1.

GENUS XI.

Ros Solis, Rosa Solis, or Sun-dew.

SUN-dew is a Plant with a Rose-Flower A, consisting of many Leaves B, placed in a Circle: Out of whose fistulous Flower-cup C, rises the Pointal D, which afterwards turns to a Fruit E, which is oval or pointed G, gaping at Top FH, and full of roundish or oblong Seeds K I. To these Marks must be added, That the Leaves have Hairs scattered upon them, out of which seem to flow certain little Drops.

The Species of Sun-dew are,

1. Ros Solis folio subrotundo. C. B. Pin. 357. Sun-dew with a roundish Leaf. *Rorida sive Ros Solis major*. Lob. Icon. 811. *Ros Solis foliis circinata rotunditatis*. J. B. 3. 761.

This Plant sends forth from a small fibrous Root several Leaves resting upon long Foot-stalks that are hairy on the upper Side, of an exact round Figure, shaped like an Ear-picker, a little hollow, of a pale green Colour, fringed quite round with small reddish Stamina like the Hairs of the Eye-lid; and wet with dewy Drops that stick on the Hairs even in the hottest Day of Summer. Such-like Stamina, but shorter, stand also upon the upper Side of the Leaf; for the

under Side is perfectly smooth, and void of Hairs. From the Middle of the Leaves rise two or three Stalks, which are round, slender and reddish, naked of Leaves, a Palm or half a Foot long, sustaining Flowers in a long Series, that look all one Way, and lean upon short Foot-stalks, white, and coming out of a Flower-cup that is cut into five Segments. To the Flowers succeed oblong Seed-vessels, almost of the Shape and Size of Grains of Wheat, and full of Seed.

The Dew that sticks on the Hairs or Bristles is tough and clammy, and may be drawn into Threads by your Fingers.

It flowers in the Month of July, and grows in wet marthy Places, and very frequently among Water Moss.

2. Rosa Solis folio oblongo. C. B. Pin. 357. J. B. 3. 761. Sun-dew with an oblong Leaf. *Ros Solis*. Dod. Pempt. 474. *Rorida sive Ros Solis* & *Droson recentiorum*. Lob. Icon. 811.

3. Ros Solis folio rotundo, perennis. Perennial Sun-dew, with a round Leaf. *Rorella rotundifolia, perennis*. Raii Synops. 227.

This Plant is larger than the first Species, and has a perennial Root, straight and upright Leaves, not lying on the Ground in a Circle as in the common Kind, with Foot-stalks that are naked some way up from the Root, and the upper Part from the Middle hairy. It is a Native of Devonshire.

4. Ros Solis folio oblongo, perennis. Perennial Sun-dew, with an oblong Leaf. *Rorella longifolia, perennis*. Raii Synops. 227.

This Plant has a perennial or lively Root; it has twice as many Leaves as the common long-leav'd Sun-dew, which are round on the lower Part next the Ground, and after they begin to spread are in good part naked, i. e. are not fringed with any Bristles about the Edges.

It grows in Yorkshire, betwixt Doncaster and Bautry.

5. Ros Solis folio oblongo, maximus. The greatest Sun-dew, with an oblong Leaf. *Rorella longifolia, maxima*. Raii Synops. 227.

This Species has very long Leaves, several growing from the same Root, and hairy on both Sides from the Bottom. It grows near Carlisle.

Fig. 1.

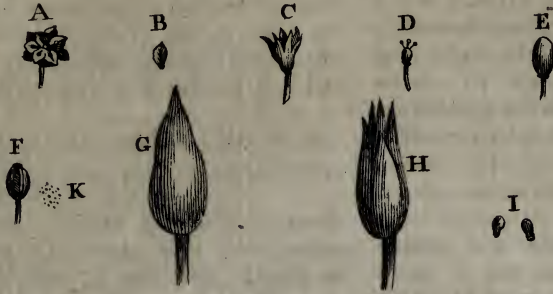


Fig. 2. Parnassia. *Parnassus Graft.* pa. 520

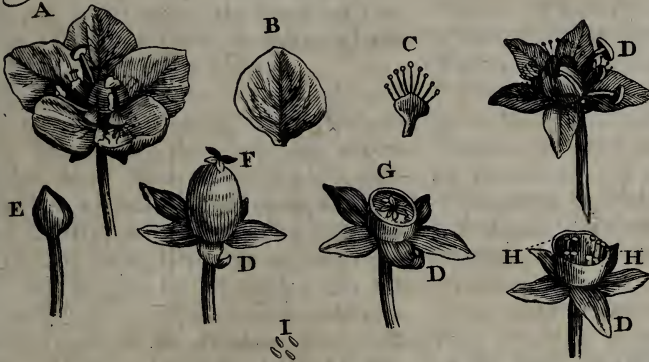
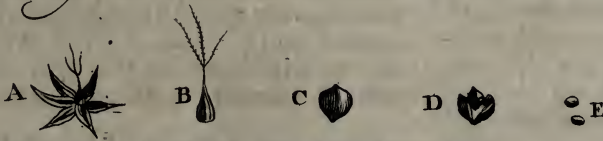
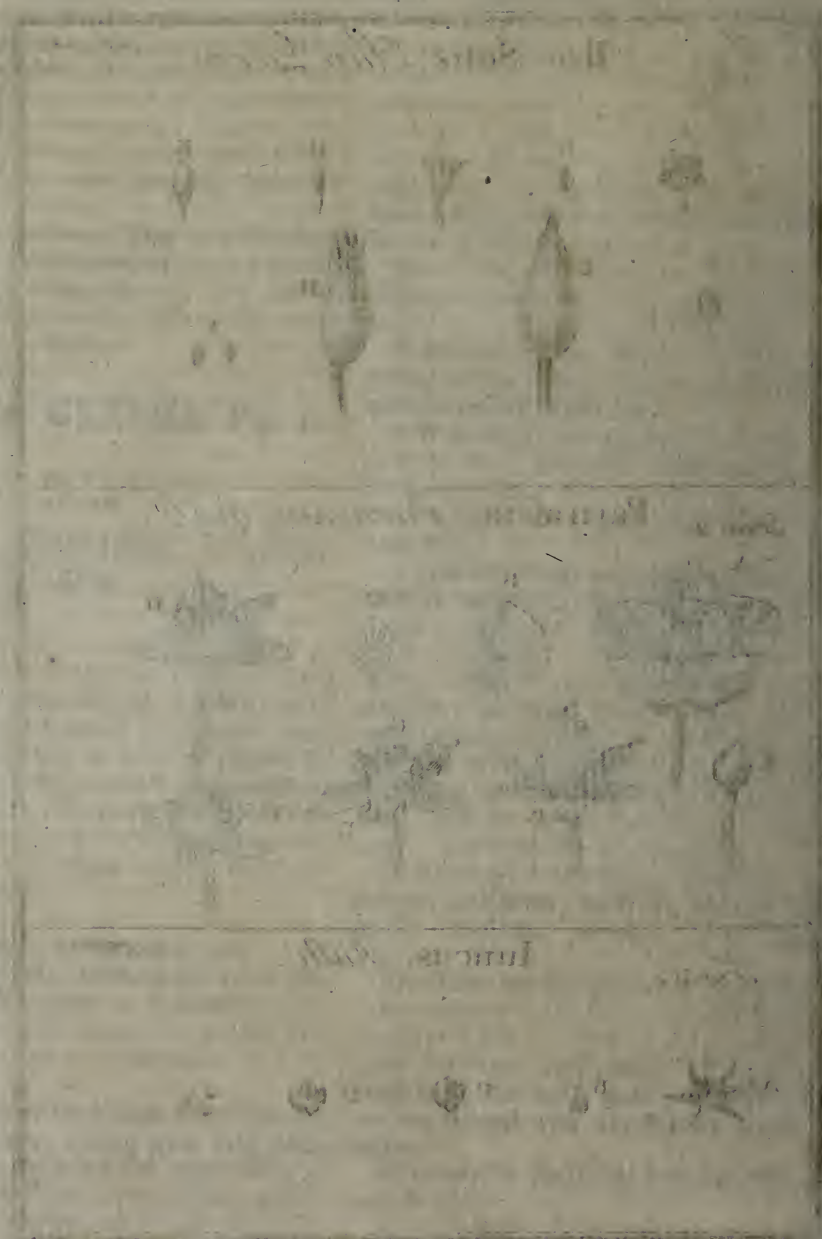


Fig. 3.





Carlisle. This seems to differ from the other Species in nothing but in its Bigness.

6. *Ros Solis Lusitanicus*, foliis *Asphodeli minoris*. Portuguese Sun-dew, with Leaves of small *Asphodil*.

This Species has *Asphodil* Leaves nine Inches long, furrowed on the upper Side, and hairy like *Rosella*, and convex on the under Side. The Leaves, which stand on the Tops of the Stalks, are larger than the rest of this Family.

Mr. *Tournefort* gathered this Plant in Portugal, and communicated it to Dr. *Sherard*, from whom Dr. *Bobart* had it.

This Genus is called *Ros Solis*, because there is always to be found on it, even in the most excessive Heat of the Sun, Drops of Water in the hollow Places of the Leaves, as if it were a Dew: The other Names were given it for the same Reasons.

Botanists are not agreed about the Vertues of it: We shall give you their Opinions; and then you may judge according as you see Reason. Both the Plant it self, and the Juice on the Leaves are in Use.

Dodonæus makes it hot and dry in the 4th Degree; for which Reason he forbids the Use of it internally. But there are others on the other hand (such as *Forestus*, lib. 16. 58.) who put a great Value upon it, and commend it extremely for a Consumption, (because it sweats in the very hottest Weather) for the Plague, for Wounds, &c. for the Falling-sickness, both as a Cure and as a Preventive: Laid on the *Abdomen* it is said to hasten the Birth; and held in the Mouth, to ease the Toothach; hung about the Neck, to ease Madness; and applied to the Pulses six Hours, and then six Hours more, to cure the *Quartan* Ague, if put in Water. *Schrod.*

I know some who use the Infusion of *Sundew* in *Aqua vitæ*, for an ordinary Cordial. *Id.*

The Juice of it is called that Moisture which sticks to the Herb like Sweat, even in the hottest Days, and that in greater Plenty than at other Times, and is gathered in a little Dish by shaking the Herb.

The Vertues of it are, That it comforts the Heart, Liver and Stomach; eases Headachs arising from a hot Cause; cures and prevents the Plague. It is given externally.

in the Ailments of the Eyes; such as Pain, Inflammation, &c. *Id.*

Schroder supposes, That the Dew is gathered by shaking the Plant, and putting a Dish under to receive it; but this is contrary to Experience: For those supposititious Drops, if but ever so slightly touched by the Ends of one's Fingers, are immediately drawn out into tough, clammy, white, silken Threads, which can never be gathered by shaking, and putting a Dish under to receive them.

There are some who attribute to this Herb a certain specifick Vertue against the Asthma; but this is the Effect of too much Curiosity and Nicety; for it does not remove every Asthma, nor cure a Consumption: A Plant which is hot and dry in the 4th Degree, burns and heats; so that it would be dangerous to use it in a Hectick. But if we consider its secondary Qualities, it breaks the Stone in the Bladder and Kidneys, and removes the Dropsy by carrying off the Water. Which Effect no one that I know of has yet committed to Writing. When the Waters of *Hornhausen* were first opened, every one was full of *Sundew*: But for what Reason? A Marsh Plant growing by Pools and Marshes just sprung up, was looked upon as portentous. To this we may add the Wickedness and Lies of the Chymists, who pretended, That a latent Mine of Gold underneath inspired into it solar Vertues. Upon which Account, not a few sold the Tincture of this Plant for the Tincture of the Sun, which is prepared by a simple Infusion of the Spirit of Wine, and the Extraction often repeated; and which is of admirable Efficacy against the Stone; one or two Spoonfuls of which is a proper Dose. This is not carried off by an Alembick, as is commonly given out and believed; tho' it cannot be denied at the same Time, That its distilled Water has something of a yellowish Colour. *Hoffm.*

This Plant is thought to be very hurtful to Sheep, for it burns up their Lungs, and causes a deadly Cough; and hence the English call it *Red Rot*. *Ex obs. Olai Borrichii in Act. Med. Tho. Bartholin. An. 1679. obs. 53.* But *Olaus Borrichius* was not the first that made and delivered this Observation; since *Camperarius* in his Garden takes Notice, That

it was observed by the Shepherds in England, That the Sheep which eat much and often of this Herb, have diseased Lungs, vitiated with a certain Rotienness and Consumption.

Gerard says, That it strengthens and nourishes the Body, especially if it be distilled with Wine, and that Liquor made of it which the common People call *Rosa-solis*. This was frequently used formerly as a Cordial in swooning and fainting Fits.

If any one be desirous, says *Gerard*, to have the said Drink effectual for the foresaid Purposes, let him lay the Leaves of *Rosa-solis* in the Spirit of Wine, adding thereto Cinnamon, Cloves, Mace, Ginger, Nutmegs, Sugar, and a few Grains of Musk, suffering it to stand in a Glass close stopp'd from the Air, and set in the Sun for the Space of ten Days, then strain it and keep it for your Use.

The same Author informs us, That Cattle of the female Kind are stirred up to Lust by eating even a small Quantity of it; which he says, has strangely increased the vain Opinion of some, without either Sense or Reason; for that it does not move or provoke Cattle to Lust by encreasing the Substance of the Seed, but because through its sharp and biting Quality it stirs up the Desire to Lust, which before was dulled and as it were asleep. This may be truly said in general of all stimulating Remedies prescribed to such as are backward and dull in performing the Act of Generation; for they do not really augment the Quantity of the generative Liquor, but cause the poor mistaken Mortal to exhaust his Substance, waste his Body, and overweary and fatigue himself, perhaps to please one who will never be obliged, even tho' he should act his Part like another *Mars* or *Hercules*; and after all, will have the Curiosity to try new Experiments with a Dwarf, an *Æsop*, or a Scullion, or, which is equally bad, with a Coachman, Footman, or a natural-born Teague.

I purposely pass over many Things which Superstition has suggested concerning this little Herb; whether that Use mentioned by *Mr. Ray* is such or not I cannot tell; but it is this, which he says he had from a Friend.

Sundew gathered when the Sun is in the Middle of *Leo*, dried, and put into a Bag, and laid on the Breast, is an Arcanum for Bleeding at the Nose.

TABLE CXXVIII. Fig. 2.

GENUS. XII.

Parnassia, Grass of Parnassus.

Glass of Parnassus is a Plant with a Rose-Flower A, consisting of larger Leaves B, and other smaller ones C, fringed and placed orbicularly: Out of the Flower-cup D, rises the Pointal E, which afterwards turns to a membranous Fruit F, which is generally oval, having but one Chest G, and full of Seeds I, which for the most part adhere to a four-fold Placenta H.

There is but one Species of this Plant yet known, which is,

Parnassia palustris & *vulgaris*. Common Marsh Grass of Parnassus. *Gramen Parnassi, albo simplici flore*. C. B. Pin. 309. *Gramen Parnassi Dodonaei, quibusdam Hepaticus flos*. J. B. 3. 537. *Gramen Parnassium*. Dod. Pempt. 564.

From a fibrous Root moderately thick, of a whitish red Colour, tasting a little warm with somewhat of Astringency, come forth many Leaves hanging at long reddish Foot-stalks, like *Violet* Leaves, but smaller, smooth, of a pale green Colour, and having a sharp Point; [*J. Bauhinus* says they are like *Joy* Leaves, but much smaller, thickish, with sinuated Nerves running along from the Foot-stalk, and endowed with a sensible Astringency.] Several angular stiff Stalks about a Span long rise from the same Root, begin with one Leaf not far from the Root, and that embracing the Stalk with its Bottom; on each of which Stalks stands one Flower, which is white and slightly, and composed of five hollow, roundish Leaves striped within. In the Middle stands a conical purplish Head, surrounded with two Kinds of *Stamina*, five of them larger, longer and white, with Chives of the same Colour; and as many of them smaller, with yellow Chives, greenish in the Borders, and resembling a Spoon in Shape. At length, that conical Head grows by Degrees to the Size of a large Cich or Cicer, which gaping into four Keels, discovers Plenty of small reddish Seed.

It is hardly to be met with any where except in stinking Marshes. It flowers in the Month of *August*, and scarce bears ripe Seed before the *Winter*.

There is likewise a Variety of this with a double Flower.

Parkinson says, That it grows in many moist moorish Places in *England*, as in the Moors near *Lynton* and *Cambridge*; at *Hesset* and *Drinkston* in *Suffolk*, at the *Butcher's Close* near that Place: In a Meadow Close on the Backside of the Parsonage House of *Burton*; and at the Bottom of *Barton Hills* in *Bedfordshire*; as also in the Middle of the great Town-Field of *Hedington*, which is about a Mile from *Oxford*; and on the other Side of *Oxford*, in the Pasture next to *Botely* in the High-way.

It is called *Parnassia* from Mount *Parnassus*, on which, according to the Testimony of *Dioscorides*, there grows a Species of *Grass*, which is called *Grass* of *Parnassus*. Lib. 4. Cap. 32. *Botanists* are not perfectly agreed whether this be the true *Grass* of *Parnassus* mentioned by *Dioscorides*, tho' it seems to be it from the Agreement of the Marks of the one and the other. It is very probable that this Herb grew most plentifully upon Mount *Parnassus*, on which Cattle feeding became fat and sleek, as the Cattle with us feeding on *Clover* or three-leav'd *Grass*, and for this Reason took the Name of *Grass*; as it is usual in several Countries to call Herbs by the Name of *Grass*, tho' they have really no Resemblance of *Grass*.

Paulus Aegineta says, That *Parnassus Grass* is temperately cold, of thin and subtle Parts, and somewhat acid: The Juice or the Decoction of the Herb or Root dissolves and expels Stones and Gravel gathered in the Kidneys or Bladder, and abundantly provokes Urine: And the Seed taken in Powder, works or operates more powerfully than either the Herb or the Root, and withal, stops Vomiting and any Lask or Flux of the Belly: The Decoction of the Roots made with Wine eases Gripping of the Guts, and cures Ulcers in the Bladder; it is likewise good against the Biting of any venomous Creature. The Juice of the Herb or Roots is good to cure any Inflammation in the Eyes, or to dry up their running or watering, and to clear them from Mist or Films that obscure

the Sight, if it be mixed with a little Honey and dropped into them. It is also held effectual for curing the Tooth ach, by gargling the Mouth with it. Either the Juice, Decoction, or Powder, of the Herb, Root, or Seed, is with good Success applied to green Wounds that are much subject to bleeding, and restrains Inflammations that might endanger the Patient, or hinder the Cure.

Lemery says, That *Parnassus Grass* contains abundance of Phlegm and Oil, and little Salt; and that it is astringent and cooling.

Dioscorides says, That the Juice of the Leaves and the Decoction of the Root, is a most approved Remedy for the Eyes, and that the Seed provokes Urine very powerfully, and stops Purging and Vomiting.

It strengthens the Liver, and removes Obstructions from it. *Chab.*

TABLE CXXVIII. Fig. 3.

GENUS XIII.

Juncus, Rush.

Rush is a Plant with a Rose-Flower A, consisting of many Leaves placed orbicularly: From the Center of which rises a Pointal B, which afterwards turns to a Fruit or Husk C, which is generally three-corner'd, gaping in three Parts D, and full of Seeds that are for the most part roundish E.

The Species of *Rush* are,

1. *Juncus acutus*, capitulis Sorghi. *C. B. Pin.* 11. *Juncus pungens*, seu *Juncus acutus* capitulis Sorghi. *F. B.* 2. 520. This is the *Juncus maritimus*, capitulis Sorghi of *Parkinson*. *Witly large Sea-Rush.*

It rises with a great Croud of Stalks that are a Foot and a half high, pretty thick, and stiff, with a thick Bark, and firm, white Pith, which, immediately from a Root interwoven with thick Fibres, are wrapped up in foliaceous Sheaths that are reddish, about nine Inches long, with feathered Crests accompanying them, which resemble the *Austrian Matweed* in Shape, but not in Colour, which in this Plant is reddish. Three or four Inches below the prickling Point of the Stems come forth glomerated Heads of Flowers and

Seeds, (which are roundish, shining, duskyish, resembling those of *Sorghum*, and containing very small, oblong, and duskyish Seed :) Under the Rife of which is set a Leaf, which rises from thence, in its broad Bottom resembling a Sheath, and ending in a Point.

This Species grows in great Plenty on the Sand-Banks on the *Western Coast of Wales* in *Merionethshire*. *C. Baubinus* says, It grows commonly about the Bath near *Padua*, as also not far from *Montpelieri*, near a Village called *Perauls*, nay, and all along that Coast.

2. *Juncus acutus*, paniculâ sparsâ. *C. B. Pin. 11.* *Juncus foliaceus*. *J. B. 2. 521.* *Juncus acutus*. *Dod. Pempt. 605.* This is the *Juncus acutus vulgaris*. *Park.* Common Hand Rush.

The Root goes along the Surface of the Earth obliquely, being firmly fixed by the many dark Fibres that it sends down; from whence come forth a great many Rushes out of the thick and as it were bulbous Heads or Gems, being covered with membranous, bay and shining Coats. These membranous Coats, which shine with a bay Colour, as if they were polished, the innermost being much longer than the rest, infold and cover the Bottom of the Rush, the length of a Palm and better. The Rushes are above a Cubit and a half high, slender, round, channelled, with a thick Bark, little Pith within, but not quite empty, all of them rising from the Root, and none of them, so far as I could observe, coming forth from the Bosoms of others, as *Dodonæus* writes, and most other *Botanists* who have followed him. But perhaps he meant another, and one different from our common sharp or Hand Rush. They end in sharp Points, below which at the Distance of about half a Foot, over or under, breaks forth a spreading Tuft, which is reddish, and contains Seeds in Vessels.

This Species grows every where in Pastures, and by the Highways in moist and wet Ground.

3. *Juncus lævis*, panicula sparsa, major. *C. B. Pin. 12.* Greater smooth Rush, with a spreading Tuft. *Juncus panicula arundinacea*. *J. B. 2. 520.* *Juncus lævis*. *Dod. Pempt. 605.* Common soft Rush.

This Rush rises above two Cubits high, with round upright Shafts, not in the least

knotty, thicker than the Blade, green, smooth and shining, with a more solid and thicker Pith than in the following Species (for which Reason they are more fit to make Candles,) and ending in sharp Points. Nine Inches below the Point breaks forth a spreading and broad Tuft, especially in watery Places, for otherwise it is somewhat more compact. The Seed-vessels hang down from the small Foot-stalks, being much smaller and paler than in the following Rush, tho' the Plant it self be larger.

It grows in or near Water.

The Use of the Pith of this Plant is to make Rush Candles. In *Staffordshire* they make Ropes of the Bark.

4. *Juncus lævis*, panicula non sparsa. *C. B. Pin. 12.* Smooth Rush, with a Tuft that does not spread. *Juncus Matthioli*. *J. B. 2. 520.* *Juncus lævis*, glomerato flore. *Lob. Icon. 84.* Round-headed Rush.

This differs from the former in its channelled Stalks, in its thinner and more spongy Pith, for which Reason it is unfit to make Rush Candles of; in its more contracted Tuft, and in its larger Seed-vessels that break out higher or nearer the Top; and last of all in its later Time of flowering.

It grows frequently in Pastures and Woods in moist Places; whereas the former grows only in Water, or by Water.

5. *Juncus acumine reflexo*, major. *C. B. Pin. 12.* The greater bending Rush. *Juncus melancranis*. *Lugd. 985.*

This Species grows after the Manner of the great soft Rush, has somewhat round-headed Roots, covered with blackish brown Coats or Films, under which are Tufts of Threads; from which Heads rise several long Rushes, half a Yard high or more, breaking a good way under the Top, which bends or turns downwards, out of a round membranous Head, which is divided into many round membranous Heads, standing on short Foot-stalks, which have as it were five Corners, full of cornered, sharp, very small yellowish Seed, of a somewhat harsh Taste.

It grows in watery and fat Places, but which are generally watered with pure running Water.

6. *Juncus acumine reflexo*, minor vel trifidus. *C. B. Pin. 12.* Triple-tufted bending Rush.

Rush. *Juncus acuminatus reflexo, trifidus.* Ejuld. Prodr. 22. *Juncus trifidus.* J. B. 2. 521.

The Root of this Plant is black, jointed and fibrous; the Rushes many, slender, and four or five Inches long. The Stalks are parted in three at Top, and seldom divided into four slender long Rushes, three or four Inches long each; between which come forth three small chaffy Tufts.

It grows on the Pyrenean Mountains, and on the Mountains of Moravia.

7. *Juncus villosus, capitulis Psyllii.* Hairy Rush, with Fleawort Heads. *Gramen hirsutum, capitulis Psyllii.* C. B. Pin. 7. *Gramen Cyperinum, pilosum.* Tabern. Icon. 219. *Gramen exile, hirsutum, Cyperoides Lobelii.* J. B. 2. 493. This is the *Gramen Luzula minus.* J. B. Small hairy Wood-grass.

This Species has a reddish, oblong, creeping Root, capillated with many Fibres; from which come forth several Leaves $4\frac{1}{2}$ Inches long, sometimes broader and sometimes narrower, sharp and hairy; among which rises a smooth, slender, green Stalk a Palm high; sustaining a short reddish Tuft made up of several Flowers. When the Flowers blow they expand into six black red-Leaves with pale Sides; out of whose Center come forth six yellow Stamina and three pale Filaments or Threads. C. B.

J. Baubinus says, That the Stalk has two Joints, from which break forth two Leaves two Inches long, one in the Middle, and the other at Top, where the Bush is divided into three or four Parts, as into Heads.

It flowers in the End of April and Beginning of May, and grows commonly in Meadows and Pastures.

8. *Juncus nemorosus, latifolius, major.* Greater, broad-leav'd, Wood Rush. *Gramen hirsutum, latifolium, majus.* C. B. Pin. 7. *Gramen rore lucidum, nemorense, sive Luzula.* J. B. 2. 492. *Gramen sylvaticum, pilosum.* Tabern. Icon. 227.

This Species has a big, fibrous, jointed, reddish Root. The Stalks are a Cubit and a half long. The Leaves are a Palm long, stiff, sharp, upright, striped on the Backside, and smooth, but covered on the Edges with a long, hairy and tender Down, which runs along the Leaf on both Sides. That Down or Hairs, which easily falls off at the Touch, gathers a Dew which shines in the Night,

either when the Moon or the Stars shine bright; so that it appears wonderful to the Beholders: When the Dew falls, those that were looking for the Herb cannot find it. The Description of the greater, broad-leav'd, hairy Grass, by *C. Baubinus* agrees almost in every thing with our common, hairy Wood-grass, except only in Bigness.

9. *Juncus palustris, humilior, erectus.* Low, upright, Marsh Rush. *Gramen nemorosum, calyculis paleaceis, erectum.* C. B. Pin. 7. *Holostium Matthioli junceum.* J. B. 2. 510. *Holostium Matthioli.* Lob. Icon. 18.

10. *Juncus palustris, humilior, repens.* Low, creeping, Marsh Rush. *Gramen nemorosum, calyculis paleaceis, repens.* C. B. Pin. 7. *Gramen junceum, bufonium.* Tabern. Icon. 225. Toad-grass.

Matthiolus calls this Plant *Holostium*, which is to be seen in Marshes, a Palm or a Palm and a half high, with many slender Stalks, somewhat reddish, and divided into many Branches. The Leaves are sharp, two or three Inches long, and narrow, with many Flowers stretching along the Branches, and consequently on the Tops. To these succeed Seed-vessels, containing small, reddish, pelucid Seed. The Root is full of hairy Fibres.

It is called in English, Toad-grass, because it grows in Places where the Toads nestle.

11. *Juncus foliis articulatis, floribus umbellatis.* Rush with jointed Leaves, and umbellated Flowers. *Gramen junceum, folio articulato, aquaticum.* C. B. Pin. 5. Prodr.

12. *Gramen aquaticum.* Tabern. Icon. 214. The lesser Rush-grass, with jointed Leaves.

This Species varies not a little in Bigness, having sometimes Stalks a Palm long, and sometimes a Cubit, knotty, somewhat flat, fungous, branched and channelled. Both the Leaves that rise immediately from the Root, and which are set at the Joints a good way up the Stalks, are grassy, sharp and jointed. At the Shoots that stick out from the divided Stem, and at the Divarication of the Branches, stand five, six, more or fewer Husks joined together, which are three-corner'd, oblong and sharp-pointed, of a blackish red Colour, shining, and containing very small reddish Seeds. And on the little Stems that are sometimes very short, and sometimes oblong, sit

as it were certain excrementitious Spikes, which are reddish and scaled in a foliaceous Manner. This happens frequently, especially in open Places, as about *Montbelgard* and *Basle* in the Marthes of *Michelsfeld*, and with us about *Cambridge* and elsewhere. The Root is such as is common to *Rushes*, having very many hairy Fibres, and these long, with which it creeps along the Surface of the Earth; so that if the Stems should touch the Ground, they would send down Fibres from the Joints, which would take Root in the Earth.

This Species is to be found almost every where in wet and marshy Places.

12. *Juncus foliis articulosis, floribus umbellatis cum utriculis.* Rush with jointed Leaves, umbellated Flowers with little Bags. *Gramen junceum folio articulo, cum utriculis.* C. B. Prodr. 12. *Juncus foliaceus, capsulis triangulis.* J. B. 2. 521.

13. *Juncus foliis articulosis, floribus umbellatis & paniculatis dispositis.* Rush with jointed Leaves, and Flowers ranged in Umbels and Tufts.

14. *Juncus nemorosus, folio articulofo.* Wood Rush, with a jointed Leaf. *Gramen junceum, folio articulo, sylvaticum.* C. B. Pin. 5. *Gramen junceum sylvaticum.* Tabern. Icon. 223.

From a transverse Root that lies and creeps on the Surface of the Earth, it shoots down many Fibres, some thick, and others slender; and pushes up many Stalks a Cubit and a half high, that are solid, generally parted by three Joints, and begirt with so many Leaves, which on the lower Part infold them like a Sheath, and after they part from them, stretch out the length of half a Foot, and are hollow within, and divided by many Joints. From the Stalk a little below the Top or Point breaks out a Tuft, which spreads, and is composed of many Crouds of Seed-vessels, when the Plant grows in wet and watery Places. Altho' this Plant is larger than the *Gramen junceum capsulis triangulis minimum*, and taller likewise, yet the Seed-vessels are smaller, and are not of so dusky a black Colour.

It grows in watery Places, and often in marshy Woods.

15. *Juncus montanus, palustris.* Raii. Hist. 1303. An. *Oxyschœnus* sive *Juncus acutus*

Alpinus Cambrobritannicus. Park. Moss-Rush, or Goose-Corn.

The Root consists of large reddish Fibres, The Leaves are numerous, not erect, but generally stretched upon the Ground like a Star, and are short, hard, pointed, not exactly round, but channelled on the upper Side; for which Reason it may perhaps be more properly reduced to the Genus of *Grasses* than to *Rushes*. Out of the Middle of the Leaves rises a Stalk nine Inches or a Foot high, which is firm, full of Pith, having only one Leaf upon it near the Root, otherwise naked, bearing a rushy Tuft at Top, which is composed of several Parts. The Flower is like that of the *Gramen hirsutum exile*, consisting of six Leaves, with as many little fringed yellow *Stamina* in the Middle. To these succeed pretty large roundish Seed-vessels, which contain the Seed.

It grows in great Plenty all over *England*, in spongy and rotten Ground or mountain Marthes; so that it is not necessary to mark the Places particularly. You may see it near *London*, on *Hampstead-Heath*.

Parkinson has a smaller Sort of this, which he calls *Oxyschœnus* sive *Juncus acutus minor*.

16. *Juncus parvus, cum pericarpis rotundis.* Rush-grass with round Seed-vessels. J. B. 2. 522. *Gramen junceum, foliis & spica Junci.* C. B. Pin. 5. *Gramen junceum tertium.* Tabern. Icon. 224. This is the *Gramen junceum maritimum majus.* Park.

This Plant rises with rushy Stems which are often a Palm and sometimes a Cubit high, and furnished with many grassy Leaves about the Bottom, which rise immediately from an oblique, rushy, fibrous Root; whose Top spreads into an irregular Umbel like *Dropwort*, and whose single, polished, round Heads bear Seed shut up in blackish Bags, and at last gape into three small Keels.

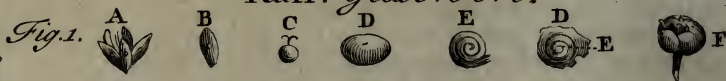
It grows in wet and plashy Meadows, not only near the Sea, tho' it grows there most plentifully, but also in such as are remote from the Sea.

17. *Juncus angustifolius, villosus, floribus albis, paniculatis.* Narrow-leav'd hairy Rush, with white tufted Flowers. *Gramen hirsutum, angustifolium, minus, paniculis albis.* C. B. Pin. 7. *Gramen Luzula affine, flore*

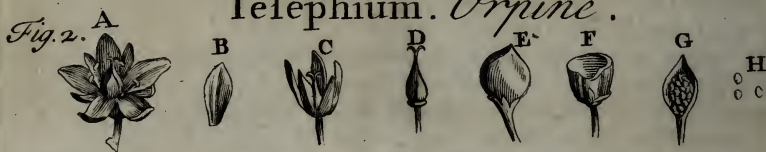
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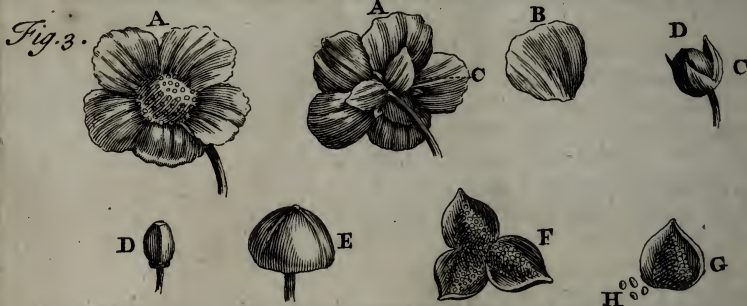
Kali. Glasswort.



Telephium. Orpine.



Helianthemum. Small Sun-Flower.



Androsæmum. Tutsan.



flore albo. J. B. 2. 492. *Gramen Leucanthemum Dalechampi.* Lugd. 426. White prickled Wood-grass.

This Species bears Leaves that resemble those of the *Gramen Luzula five nemorosum*, and that are in like Manner hairy: But the Stems are larger and a Cubit high. There is a manifest Difference in the Flowers; for these are white and chaffy, whereas in the other they do not end in Fescues, but in Heads or small Flower-cups containing Seeds, which Flower-cups are blackish; whereas the Fescues of this are whitish. It has some Hairs like *Luzula*, which also do easily fall.

Mr. Ray observed this Plant on the Sides of the Mountain *Saleva*, and on the Hill called *la Bastie* near *Geneva*.

18. *Juncus foliatus, minimus.* J. B. 2. 523. The smallest leafy Rush.

Rush in Greek is called *ῥαῖς*, which signifies a Rope or Cord, for to it was used in former Times; and in Latin, *Juncus à fungendo*, for the same Reason; because Rushes were used to tie or bind Things together, as they are in some Places to this Day.

There is little to be said of the Vertues of this Genus, we having so many better Plants that do more effectually answer all the Purposes to which this may be applied: However, *Dioscorides*, *Galen* and *Pliny* affirm, That the Seed of soft Rushes drunk in Wine and Water, cures the Lask or Flux of the Belly, and diminishes the immoderate flowing of the Terms: That it provokes Urine, but at the same Time causes a Head-ach, and procures Sleep; but it must be given with Caution, lest it occasion a dead Sleep. The Bottoms or tender Leaves, or that Part next to the Root applied to the Biting of the *Phalangium* or poisonous Spider, cures it. The Root, says *Pliny*, boiled in Water till two Thirds of the Liquor is consumed, is of good Use in the Cough.

Lemery informs us, That it contains a good deal of Oil and little Salt; and tells us, That the Seed of *Rush* stops Fluxes, and the Loss of Blood or the immoderate Flowing of the Terms, and procures Sleep; which is what *Galen*, *Dioscorides* and *Pliny* had told us before.

TABLE CXXIX. Fig. 1.

GENUS XIV.

Kali, Glasswort.

Glasswort is a Plant with a Rose-Flower A, consisting of many Leaves B, placed in a Circle: Out of the Middle of which rises the Pointal C, which afterwards turns to an almost globular and membranous Fruit D, containing one single Seed which is twisted like a Periwinkle, and generally infolded in the Leaves of the Flower F.

The Species of Glasswort are,

- I. *Kali majus, cochleato semine.* C. B. Pini 289. Snail-seeded Glasswort. *Calis vulgare.* J. B. 3. 702. *Soda, Kali magnum, Sedi medii folio, semine cochleato.* Lob. Icon. 394. *Kali.* Dod. Pempt. 81.

This Plant rises two Cubits high (viz: when cultivated, for otherwise it hardly rises one Cubit high,) spreading it self far and wide, having no Prickles upon it, of a very deep red Colour, divided into straight thickish Branches that are a Cubit long: On which the lower Leaves are a Palm long, but the upper ones smaller; and nearer the Top the Leaves are shorter and crooked, from a broad Bottom ending almost in a Point; near which stand Heads resembling the Heads of the *Trazum Matthioli*, but not pointed; in which are contained Seeds shaped like a Snail-Shell. The Taste of the whole Plant is salt and disagreeable. 'Tis an annual Plant.

It grows wild in the Mediterranean in many Places. It is sowed at *Montpelier* in Salt Ponds, in order to make *Sal Alkali*, the Manner of which the Makers told *J. Bauhinus*.

Having digged a little Ditch near the Sea, they lay Laths or Spars across, on which they lay the foresaid Herb in Heaps, and having made a Fire, the Liquor drops down from the Herb into the Cavity, which at length thickening, becomes *Sal Alkali*, partly of a black and partly of an Ash-colour, very sharp and eating, and of a saltish Taste. And this Stone which they call *Kali* or *Sode*, they,

they carry from *Narbonne* and *Aquitain* in *France*, into *Italy*, and the *North*, to make *Glass* of.

The *French* about *Montpelier* make *Soap* of the *Salt* of *Kali*, and native *Gabian* Oil, at a Spring over against *Beziers*, and colour it by Art as they please.

2. *Kali spinosum*, foliis longioribus & angustioribus. Prickly *Glasswort*, with longer and narrower Leaves. *Tragus spinosus Matthioli*, five *Kali spinosum*. J. B. 3. 706. *Tragon Matthioli*. Lob. Icon. 797.

This Plant rises with Stalks seldom a Cubit high, divided into several other grofs, thick and wreathed Branches, set or armed with many prickly Leaves, of the Colour and Shape of *Aizoon*, and somewhat thick and fleshy; among which come forth such prickly Burrs, as are to be seen in the *Tribulus terrestris*, so that it is hard for one to touch any Part of it without pricking of one's Hands. The Flowers are of an herby Colour; to which succeeds flat Seed like that of the former Species. The Root is slender, and spreads under the Surface of the Earth. The whole Plant is full of clammy Juice, not any thing astringent but somewhat saltish. [The Leaves are numerous, an Inch long, narrow, thick, full of a saltish Juice, and ending in a sharp and stiff Prickle. Ray.]

It grows commonly on the sandy Shores.

Mr. Ray observed this Plant (which grows no where with us except on the Sands of the Sea-shore) growing wild in a sandy Ground near *Vienna*, three hundred Miles at least distant from the Sea; and afterward at *Florence* by the River *Arno*.

The Prickles which defend the Seed-vessel in a Circle are six in Number, according to *Parkinson*, on the Middle of which is a white membranous Flower, which continues not long, and when it vanishes, there grows up in the Center of the middle Part, which sticks out, a small Prickle.

3. *Kali spinosum*, foliis crassioribus & brevioribus. Prickly *Glasswort*, with thicker and shorter Leaves. *Tragum. Matth.* 1035.

This Plant spreads several crooked green Stalks variously branched, and the Branches folded within one another, thick-set with small, short and somewhat sharp, green Leaves, three or four set together, thick and

encompassing the Stalk at the Bottom, forming as it were a great Joint, resembling the Fruit of the *Caltrop*: In some Plants and Places the Leaves will be twice as long, but in Gardens are never so sharp and prickly as in the native Soil of the Plant. At the Joints upwards stand several small yellowish green Flowers, which are afterwards succeeded by small flat Seeds within a triangular prickly Husk. The Root is small and long, perishing every Year; so that if it sow not it self, as it does wild, it must be new sown every Year. The whole Plant is almost without any Taste, either of Heat or Cold, or drying, yet more inclining to Heat, as many Sea Plants are.

4. *Kali Siculum*, lignosum, floribus membranaceis. *Bocc. rarior. Plant.* 59. *Sicilian ligneous Glasswort*, with membranous Flowers.

This Plant has strong Roots, which shoot deep down into the Earth, and are thicker than one's Leg, or even Thigh. From these rise several ligneous Stalks, divided into slender Branches, round which are set Leaves resembling those of smaller *Glasswort*, not scattered without Order, but nicely placed in Couples over against one another. The Flowers in the *Summer* are white, four-leav'd, open, membranous, like the Wings of Butterflies, which are ranged in a long Train, beautiful to behold, and load the Branches at the Joints. The Seed is shaped like a Snail-Shell, and covered with a reddish Coar.

Boccone found it near *Sacca*, *Catanea* and *Agrigento*, where it is called by the Inhabitants *Liuta*, who make much Use of its Ashes in washing and bleaching their Linnen.

5. *Kali fruticosum*, *Hispanicum*, *Tamarisci folio*. Shrub, *Spanish Glasswort*, with a *Tamarisk* Leaf.

6. *Kali fruticosum*, *Hispanicum*, *Genistæ fronde*. Shrub, *Spanish Glasswort*, with *Broom* Tops.

7. *Kali fruticosum*, *Hispanicum*, *capillaceo folio villosa*. Shrub, *Spanish Glasswort*, with a hairy and downy Leaf. *Kali vermicularum*, fruticans, *minori folio Hispanicum*. Barr. Icon.

8. *Kali foliis longioribus & angustioribus*, subhirsutis. *Glasswort* with longer, narrower, and somewhat hairy Leaves.

9. *Kali*

9. *Kali orientale*, fruticosum, spinosum, Camphoræ folio. Oriental, shrub, prickly Glaswort, with a sinking Ground-pine Leaf.

10. *Kali orientale*, fruticosum, flore maximo, albido. Oriental, shrub Glaswort, with a very large whitish Flower.

11. *Kali orientale*, fruticosum, foliis Sedi minoris, flore purpureo. Oriental, shrub Glaswort, with Leaves of smaller Houfeleek, and a purple Flower.

12. *Kali orientale*, fruticosum, altissimum, florum staminibus purpureis. The tallest oriental, shrub Glaswort, with flowers having purple Stamina.

13. *Kali orientale*, fruticosum, lanuginosum. Oriental, shrub, downy Glaswort.

14. *Kali orientale*, fruticosum, Linariæ folio. Oriental, shrub Glaswort, with a Wood-star Leaf.

15. *Kali orientale*, fruticosum, flore magno, purpureo. Oriental, shrub Glaswort, with a large purple Flower.

16. *Kali orientale*, fruticosum, floribus albis. Oriental, shrub Glaswort, with white Flowers.

17. *Kali orientale*, spinosum, subhirsutum, tenuissimo folio. Prickly and somewhat hairy, oriental Glaswort, with a very thin Leaf.

18. *Kali orientale*, capillaceo folio, flore purpurascente. Oriental Glaswort, with a capillaceous Leaf, and a purplish Flower.

Kali is an Arabick Word, which is given to several Plants that differ in Genus: For the *Kali geniculatum* differs in Genus from the *Kali semine cochleato*. The Word it self signifies Salt, and was given to Glaswort, by Reason of the great Quantity of Salt which it contains.

Lemery tells us, That it is opening, and proper for the Stone and Gravel, and to remove Obstructions, if taken in Decoction.

The Spaniards sow and cultivate Glaswort in order to make thereof Sode, which was formerly called in Latin, *Alumen catinum*, and in French, *Salicore* or *Salicote*, or *Alun catin*. In order to prepare it, they cut the Herb when it is at its full Growth, and let it dry on the Ground; then they burn and calcine it in great Holes made in the Earth on purpose, and stop it up in such a Manner

that there enters no more Air than is necessary to make the Fire burn. The Matter is not only reduced to Ashes, but as there is a great Part of it that contains a good deal of Salt, and as it is calcinated a long Time by a reverberating Fire, which comes from the kindled Plant it self, its Parts unite and cling so fast to one another, that it becomes a Kind of a very hard Stone, which they are obliged to break with Hammers or other Instruments, in order to get it out of the Holes after it is cool. This Matter is a Mixture of abundance of Salt and Earth; of which they make Glas and Soap: The Bleachers and Scowrs also make use of it; and it enters as an Ingredient in Colours.

The best Sode is that which comes from *Alicant*: It ought to be chosen in small, dry and sounding Stones of a greyish blue Colour, full of little Holes like a Partridge's Eye.

We draw from Sode by Dissolution, Filtration and Evaporation, a fixed Salt, which they call *Sal Alkali*; it is caustick, and there are made of it Stones for cauterizing. This Salt has much more Sharpness and Strength, than that which is drawn from the Plant reduced to Ashes in the ordinary Way: because the strong and long Calcination which it has received, impregnates it with many more igneous Particles. This is Lemery's Account of it.

Let us now hear what Pomet says:

Kelp or *Kali*, says he, is a grey Salt which we bring from *Alicant* and *Cartagena* in Spain, cast into Loaves or Cakes of different Sizes. This Salt is made from a Plant that grows along the Sea-coast, which the Botanists call *Kali*, and we Saltwort, Soapwort, Glaswort, *Kelp*, *Sea-thongs*, *Sea-wrack* and several other Names. This Plant bears a Stalk a Foot and a half high or thereabouts, furnished with small narrow Leaves. They sow this Herb, and when it comes to a due Height, they cut and order it like Hay.

When it is dried, the Spaniards make large Holes or Pits in the Ground, in the Nature of a Lime-Kiln; after which they throw therein a Bundle of the said dried Herb, to which they have put Fire; and when they have cast that in, they throw another Bundle upon it, and when it is well lighted they fill it full of the dried Herb, and after they have filled it, they stop it up and leave it altogether

for some Time; that it may not only be the better reduced to Ashes, but likewise incorporate and fit to form itself into a Stone or Cake, in which Form it is now brought to Market. When they open the Pit they find the Herb burnt to a hard Stone which they are obliged to break and raise up, just as they do Stone out of the Quarry.

They sell at *Paris* four Sorts of Pot-ashes; the first and most valuable of which are those of *Alicant*, which, when they are right, ought to be dry and clean, of a blueish grey without and within, having little Holes like a *Partridge's Eye*, and when spit upon and held to the Nose, having no offensive Smell. You must take care that the Stones be not covered with a greenish Crust, or full of Pebbles; for the first will stain and spot your Linnen; and the second, by encreasing the Weight, will enhance the Price, besides spotting the Linnen, according to the Nature of the Stones within. Take heed also lest the Bales be opened, and the Commodity which was good, exchanged for that which is naught. This is very much used by the Glass-makers, to make the best Glass; and the Soap-boilers likewise use it considerably in the making of white and marbled Soap: But the greatest Part of that which comes from *Spain* is consumed in *Paris* and the neighbouring Villages, by the Scourers or Bleachers, who use it to bleach their Linnen.

They make of this Salt, which the *French* call *Soude*, by the Assistance of common Water, a white Salt called Salt of *Kali* or *Alkali*, which is as much as to say *Kalt Salt*, because *Al* in *Arabick* signifies Salt, and *Kali*, *Kalt*. Thus there are Salts of several Herbs called *Alkali Salts*, as those of *Wormwood*, *Centaury*, and the like. There are some who pretend That the true *Alkali Salt* is the *Glass-Salt*, but they are mistaken, as shall be shewn afterwards.

The second Sort is that of *Cartagena*, which only differs from that of *Alicant* in not being so good, neither is it of the blueish Cast, but more crusted, and the Bales much larger.

The third Sort of Pot-ashes is that called *Bourde*, which is to be entirely rejected, as being so bad that it is fit for nothing but to deceive those who buy it. This is usually

moist, of a blackish green Colour, and very ferid.

The fourth Sort is that of *Cherbourg*, which is made of an Herb that grows along the Sea-coasts of *Normandy*. This is likewise of very little Use, being extremely moist, of the same Colour and Smell with the last Sort, and full of little Stones. These two last Sorts are good for nothing but to impose upon the Buyers, and to cheat the poor Bleachers.

Of *Sandiver* or *Glass-Salt*, from the same Author.

The *Glass-Salt*, which the Workmen call *Sandiver*, or the Scum of the Glass, is a fat Dross that floats upon the Glass Mettle when it is melted. This Froth comes from nothing but the Pot-ashes which they use in making their Glass, for the Flints they make use of will afford no such Scum.

Take such *Sandiver* as is in very large Pieces, white without and within, heavy, and the likest Marble that may be; and throw away such as is far, blackish, and moist. It is very much used by those that make your white Earthen-ware, because it helps to vitrify the Sand. It is very strange that this should be of no Use to the Glass-makers, and that the Earthen-ware-makers should not be able to do without it.

It is to be had in all Places wherever Glass is made, being a sort of superabundant Salt thrown forth from the Metal while melting in the Furnace, and scum'd off with a Ladle by the Workmen, as the Recrement of their Materials. It is a very white Salt, inclining nearest to a nitrous Taste, and easily dissolving in the Air or any moist Place; for as Glass is made of Sand and Pot-ashes, the latter being put in to make the former melt into Metal, so this *Sandiver* is the Redundance of that Salt, more than is necessary to compose the Substance of the Glass, which being in Fusion, sends up to the Top whatever is more than requisite for that Purpose. This must be scum'd off, or else it will make the Glass unfit for working, render it very brittle, and no ways pliable.

The best Metal will yield, in a Pot of two hundred Weight, near a quarter or half a Hundred of *Sandiver*. The weaker the Salt

Salt or Ashes are, the greater is the Quantity of Sandiver. They yield some four or five Parts more than others do, for green Glasses. When the Ashes are bad, they are forced to fill the Pot four or five Times with more fresh Ashes, by Reason of the Quantity of Sandiver that is in them, before the Pot will be filled with Metal. Whilst any of it is in the Pot unscum'd off, they dare not cast in any cold Water to hinder the boiling; for if they should, the Furnace and the Pots would be blown up together.

This Sandiver serves to make Metals run; and a little of it put into Antimony and Salt-petre, for making *Crocus Metallorum*, increases the Quantity of the *Crocus*, and it will thereby separate the better from the Dross.

It is sold in France, and there used to powder their Meats, and also to eat instead of common Salt. Dissolved in Water, and poured upon Garden Walks, it destroys both Weeds and Vermin. The more nitrous and fossile Salts are, the more Unctuousity they have, and run the more into Sandiver; to which Nitre approaches both in Colour, Taste and Fatness.

It is said wonderfully to dry and heal Scabs and Mange, the Part affected being bathed in Water in which it has been dissolved. Parkinson says, That Sandiver works much the same Effect with the Ashes of Kali or Pot-ashes; and is used often, being powdered fine, either to be blown into Horses Eyes, or being dissolved, to be squirted into them by a Syringe, to take away any Skin, Film, Cloud or Pearl growing on the Sight. It is also used to dry up running Sores and Scabs, Tetters, Ringworms and other such Deformities of the Skin.

Having this Opportunity of mentioning Glass, we hope the curious Reader will not be displeased to be detained a little longer, while we give him some Account of the Composition of it, of the various Sorts of it, with the several Ways of colouring, &c. taken from Lemery, Pomet and several other Authors; referring for further Satisfaction to Nereus de re Viriaria.

Glass, then, is a Composition or Mixture of Ashes, or some Alkalifate Salt, with Sand, Crystal, Flints, Pebbles or other Stones, and

melted together into one Substance or Mass, by the Force of Fire.

The First Ingredient that enters into the Composition of Glass is the Pot-ashes already mentioned, made of the Herb *Kali*, called by the French, *Soude* and *Roquette*, and by the Italians, *Polverina*, *Barillia*, &c. There is little or no Difference in them, but as to the several Places they are brought from; for the best Ashes make the best Salt, and the whitest, clearest and finest Glass. Pot-ashes made of *Kali*, which comes from the *Levant*, make a far whiter Salt than the *Barillia*, and consequently a more perfect and beautiful Crystal.

Some use Brass Boilers in making this Salt, which may do where green or blue Colours are to be made; for this strong Lee will fret off some Part of the Metal or Verdegriſe, which will damage a crystalline Glass. In this Case therefore, the better Way is to have the Copper or Vessel doubly lined with Tin, because that emits no Tincture. Also in making the foresaid Salt, you must mix a Quantity, more or less, of Tartar calcined to Whiteness, with your Pot-ashes; because it makes not only more and whiter Salt, and more beautiful Crystal, but likewise opens the Body of the Pot-ashes, causes a speedier Dissolution, and a better Extraction of the Salt; just as Alum or Vitriol opens the Body of Salt-petre in making *Agua fortis*, or Spirit of Nitre; which otherwise, without that Addition, would not rise.

The Second Ingredient that enters the Composition of Glass, is Glass-stone, *Tarſo*, or Sand; and this is what gives Body, Consistence and Firmness to Glass, as Iron gives to *Engliſh* Vitriol, Copperas and Copper to *Hungarian*, *Dantzick*, and *Roman* Vitriol, which otherwise would run into Water in moist Places and Seasons.

Glass-stone is properly every Sort of Stone that will strike fire with a Steel: These are proper to vitrify and to make Glass and Crystal withal; by which you may partly know the Stones that may or may not be transmuted into a vitrious Substance.

The Third Place is yielded to those Stones that are white, but not transparent; of which Kind is *Tarſo*, which is a Sort of hard, white

Marble found in *Tuscany*, at *Pisa*, *Seraveza*, *Carara*, the River *Arno* above and below *Florence*, and in many other Parts of the World: That is the best which is without blackish or yellowish Veins in it like Rust. The next is a Kind of Pebble, in Appearance like white Marble, somewhat transparent, and hard as Flint, which being struck gives Fire, and does not turn to Lime. This, when first put into the Fire, becomes white, and loses its Transparency, and afterwards turns to Glass.

Where proper Stones cannot be got, Sand is used; and, as some think and affirm, was the first Material made use of in making of Glass: It must be small, white, and very clean, and well washed before it be used; which is all the Preparation of it that is requisite. This is usually met withal in the Mouths and Banks of Rivers, and in many Places upon the Sea-shore, and sometimes upon Inland Sand-hills. White Crystal Glass requires a fine, clear, transparent Sand; but green Glasses more coarse and brown.

The last Ingredient is *Manganese* or *Magnetis*, so called from its likeness in Weight, Substance and Colour, to the Load-stone, and is accounted one of the Kinds thereof, which is found in *Germany*, *Italy*, *Piedmont*, &c. but of late Years in *England*, among the Lead Mines; and wherever Miners find it, they certainly conclude that Lead Ore lies under it. The Potters consume great Quantities of it; this being the only Material wherewith they colour their Black, as they do Blue with *Zaffer*: That is best that has no glittering Sparkles in it, and is of a blackish Colour, but being powdered is of a dark leaden Colour. 'Tis a Stone very hard and ponderous; and the deeper its Colour is, the deeper it colours the Metal in the Furnace, and is to be put into the Melting-pot together with the Fritt. This is the most universal Material that is used in making of Glass, and is that alone which purges off the greenish, blueish Colour which is in all Glass, and makes it not only clear and diaphanous, but also renders it dark, black, red or purple, according to the Proportion that is added. The *Manganese* of *Piedmont*, and that of *England*, which

are the best of all others, make a very fair Murrey, and at last leave the Glass white, and take from it its Greenness and Blueness: The Reason of which Operation seems to be a Change in the Figure of the more minute Parts of the Metal; for the Fire making the *Manganese* run, mixes it with the smallest Atoms of the Metal throughout, which by boiling, and various Agitations and Revolutions of them, form those Reflexions of Light which we call clear, white and transparent.

As much *Manganese* prepared must be used in common white Glass, as in that made of Flint or Crystal. The Quantity of the *Manganese* is uncertain, and is only known by Practice and long Experience, and therefore cannot be positively determined either by Weight or Measure, but must be wholly left to the Eye, Judgment and Experience of the Artist. In putting of it in, you are to try whether it has enough of *Manganese* or no: If it be greenish give it more *Manganese*, with Discretion, and put it in by little and little; for otherwise, instead of a clear, white, diaphanous Colour, which, in just Proportion, it always gives; if too much be added, it will make a Murrey, Purple or Black, and take away the Splendor of the Metal, which otherwise would be clear and shining: For it is the Property of *Manganese* to take away the Foulness and Greasiness which Crystal has, and to make it resplendent, clear and white.

A Fourth Ingredient has likewise been added, of late Years, to the Composition of Glass, which is Salt of *Tartar*: If the Proportion of twelve Pounds of true Salt of *Tartar* be added to an Hundred Weight of Fritt, it makes it, without any Comparison, much fairer and more pliable to work than ordinary. This Salt of *Tartar* must be very pure, and put in when the Fritt is made, and then mixed with the Glass-stone, *Tarso*, or Sand, together with the *Polverina*, *Roquette*, or Pot-ashes sifted and made fine, whereof the Fritt is to be made. Hitherto we have spoke of the Materials; but to descend to the Instruments, and Manner of working Glass, would be beside the Scope and Design of this Performance; and therefore we shall proceed to shew you how to turn your Materials

terials to Fritt, of which Glas is made and fashioned.

Fritt is nothing else but a Calcination of those Materials which compose Glas; and tho' they may be melted and make Glas without Calcination, yet this would require too much Time, and occasion much Labour; and therefore this Calcination was invented to calcine the Fritt in the Calcar; which, when it is calcined, and the Proportion of the Materials adjusted to the Goodness of the Pot-ashes, it presently melts in the Pot, and purifies wonderfully. Fritt seems to be derived from *frittare* to fry; since indeed it is nothing else but Salt or Ashes mixed with Sand or Stone, in fine Powder, and so fried or baked together. The *English* call the whole Quantity baked at a Time in the Calcar, a Batch. Then it runs into little Lumps like Fritters, called often in *Italian*, *Fritelle*, or little Fritts.

It is of three Sorts: First, green Glas Fritt, made of common Ashes without any Preparation of them, other than beating them to Powder, and a hard Sand fetch'd from *Woolwich* in *Kent*. Secondly, ordinary white Fritt, made of Ashes of *Polverine* or *Barilla*, without extracting the Salt from them, which makes common white Glas. Thirdly, Crystal Fritt, made with *Polverine* or Pot-ashes, and Salt of *Tartar*, with white crystalline Sand, Crystal, Pebbles or Flint. The Materials must be finely powdered, washed, searfed, and then incorporated well together, which put into the Calcar will exactly mix in the smallest Particles, and minutest Atoms; for otherwise the Salt and Sand will, in the melting Pot, easily separate one from another, which they are apt enough to do, were they not stirred with the Rake.

To make the Second Kind, or common white Sort of Fritt, for the white Glas: Searfe the pure Pot-ashes, and what will not go through beat and searfe again; beat also fine and searfe your *Tarso*, Crystal, &c. Take of the Ashes, &c. one Hundred Weight, of the Stone from eighty to ninety, pure white crystalline Sand, washed and freed from all its Filth, six Pounds; mix all together, then put them into the Calcar or calcining Furnace when it is hot; at first mix and spread them well in the Calcar with a Rake, that they may be well calcined, and continue

this till they begin to run into Lumps; the Fritt will be perfectly wrought in five or six Hours, being stirred all the while, and a sufficient Fire continued: When you would see whether it be enough or no, take a little of it out, and if it be white, yellowish and light, it is enough. The calcining it more than five or six Hours is not amiss; for by how much more it is calcined, by so much the better it is, and the sooner it melts in the Pot: And by standing a little longer in the Calcar, it loses the Yellowness and Foulness, which it would communicate to the Glas, and becomes more pure and clear.

It is here to be noted, That in *Italy* and other Places, when they take the Fritt out of the Calcar, they throw upon it a good Quantity of cold Water while it is hot, then set it in a Cellar, from whence a Lye will drop, which may be strengthened with calcined Tartar, to be kept for Use, with which they now and then water the Fritt, which being heap'd up together in a moist Place for the Space of two or three Months or more, the said Fritt grows into a Mass like a Stone, and must be broken with Mat-rocks: This when it is put into the Pot soon melts, and makes a Glas as white as Crystal: For this Lye is thought to leave upon the Fritt its Salt, which produces this Whiteness and makes it easier to melt and more Crystalline, as aforesaid.

To make Crystal Fritt, commonly called *Bollito*: Take of the best clear Pebbles, Crystal, white Marble, *Tarso* or Flint, ground small in a Mill and searfed as fine as Flower, two hundred Pounds, of pure Salt of *Polverine* or Pot-ashes sifted also, one hundred and thirty Pounds; put them into the Calcar when it is well heated, for should the Calcar be cold the Fritt could never be made: At first, for an Hour, make a temperate Fire, and continually mix the Fritt with the Rake, that so it may be well incorporated and calcined, then increase the Fire, always mixing the Fritt with the Rake, for it is a Thing of great Importance, which you must continually do for five Hours, continuing a strong Fire: Then take the Fritt out of the Calcar, being perfected, and put it in a dry Place on a Floor, and cover it well with a Cloth that no Filth or Dust may fall upon it; and this you must take care of, if you would

have good Crystal. The Fritt thus made will be white as the purest Snow. If the *Tarso* be lean you may add to the Quantity ten Pound or more of the foresaid Salt; but this is to be done after making Trial. You ought always to make Trial of the first Fritt, by putting it into a Crucible and setting it in the Furnace; if it grow clear suddenly, you will know whether it be well prepared or not; whether it be soft or hard, and whether any more salt is to be added to it or taken from it. This Crystal Fritt must be kept in a dry Place where no Moisture is; for by Moisture it will suffer Damage, grow moist, and run to Water, and the other Ingredient remain alone, which of it self will never vitrify. This is not to be watered as the former, but may lie three or four Months; after which it will be much better to put into Pots, and sooner grows clear.

Green Glass Fritt, of which we have yet said nothing, is a Composition made up of coarser Materials, to wit, of common Ashes, without any Preparation of them, or else of Gobbers ground to a fine Powder, and a hard Sand. This requires ten or twelve Hours baking, more or less, according to the Goodness and Softness or Hardness of the Sand and Ashes. When the Fritt is put into the melting Pots to be made into Glass, in the second or working Furnace, whether it be green Glass, white Glass, or Crystal Fritt, it is to be melted, and to be kept so long in Fusion till it is purified and refined, before it is wrought. It purifies it self by sending up a Scumm to the Top, which is a superabundant Salt cast forth by the Metal, and by the Workmen called *Sandiver*, and is to be taken off with the scumming Ladle as the Recrements of the Materials. This *Sandiver* damages the Metal, and makes the Glass dim and cloudy, being always very foul, and therefore is to be continually scummed off and taken away, as long as any of it rises.

To reduce Glass again into its first Principles; take Glass in Powder to what Quantity you please, Pot-ashes in an equal Quantity; mix or melt them in a strong Fire, put this Substance into warm Water; so the Glass will dissolve, the Salt will melt and mix with the Water, and the Sand, &c. will fall to the Bottom; by which it appears, That the Fu-

sion of Glass is not the last Fusion, or beyond Reduction. *Helmont* says, if you melt Glass in fine Powder, with a good Store of *Sandiver*, and set them in a moist Place, all the Glass will be soon resolved into Water, to which if you add as much *Aqua regalis* as is sufficient to saturate the *Sandiver*, you shall find the Sand to settle presently to the Bottom, in the same Weight as when it was first put in. For the Salt in the Glass is imbibed and taken up by the *Sandiver*, and *Aqua regalis*, and so the component Parts are analyzed into their former Principles.

As to the Manner of making Prince *Rupere's* Glass Drops: They are made of green Glass well refined; for otherwise they will not succeed, but crack, and break presently after they are dropped into Water. The best Way of making them, is to take up some of the Metal out of the Pot, on the End of an Iron Rod, and immediately let it drop into cold Water, and lie there till it is cold. Where observe, 1. If the Metal be too hot when it drops into the Water, the Drop will certainly frost and crackle all over, and fall in Pieces in the Water. 2. Every one of them that cracks not in the Water, but lies in it till it is quite cold, is sure to be good. 3. The most expert Artists know not the just Measures of Heat required, and therefore cannot promise beforehand that the next shall be good; for many of them miscarry in the making, and oftentimes two, three or more prove bad for one that hits. 4. If one of them be taken out of the Water whilst it is red hot; the small Part of the Tail or Thread it hangs by, so much of it as has been in the Water, will, upon breaking, fall into Dust, but not the Body of the Drop, tho' its Cavities are full as large. 5. If one of them be cooled in the Air or on the Ground, hanging by the Thread, it becomes in all Respects like other Glass. 6. The Outside of the Glass-Drops that are cooled in Water, is close and smooth like other Glass; but within it is spongy and full of Cavities or little Bubbles. 7. The Figure of it is roundish or oval at the Bottom, not much unlike a Pear or Pearl, writhed from the Beginning of the Neck, as it grows smaller, and terminating in a long Neck, for the most part bended or crooked. 8. If a Glass-Drop be let fall into scalding Water, it will crack and

and break in the Water, either before the red Heat is gone, or soon after. 9. If it be taken out of the Water before it is cold, it will certainly break. 10. If they be dropt into Vinegar, or Spirit of Wine, or Water in which Nitre has been dissolved, or *Sal ammoniack*, or Milk, they never miss to frott, crack, and break to Pieces. 11. If dropt in Oil-Olive, they do not so frequently miscarry as in cold Water, nor have so large Bubbles in them, but some Part of the Neck and small Threads break like common Glafs: And if the Neck be broken near the Body, and the Body held fast in the Hand, it breaks not into small Parts, nor with so smart a Force and Noise as those made in cold Water. 12. If you break off the Tip of the Thread or Neck of one of those made in Water, the whole will immediately fly into very minute Parts, which will easily crumble into coarse Dust. 13. A Blow with a small Hammer or other hard Instrument, only upon the Body of one of those made in Water, will not break it. 14. One of them broke in the Hand under Water, strikes the Hand more briskly and makes smarter Noise than if broken in the open Air; but fastned in a Ball of Cement half an Inch in Thickness, upon breaking of the Thread or Tip of it, it breaks the Ball in Pieces like a Granado. Lastly, Some of them being ground upon a Tile or Stone, break when the Bottom is a little flatted, and others not till half is rubbed or ground off.

To prepare white Glafs, or Crystal Glafs: Take Fritt of ordinary Pot-ashes to make a fair, white, common Glafs, but Fritt of the best, whitest and hardest Pot-ashes, in great Lumps, makes the Glafs which is called Crystal Glafs, not Crystal it self: You must put as much *Manganese* to one Sort as to another; put the white and Crystal-like Glafs in Water, that you may have them clear in Perfection: You may make them without this throwing into Water; but yet it is necessary, if you would have them fairer than ordinary, and may be repeated if you would have them yet more resplendent; and then you may work them into what Vessel you please. If you would have the Glafs yet whiter, calcine them, that they may purify well and have but few Blisters: And also add to a hundred Pounds of Fritt twelve Pounds of

pure Salt of *Tartar*, which must be put in when the Fritt is made, and so mixed with Sand and Pot-ashes sifted, and then make Fritt of all this as before; and so will the Metal be fairer beyond Comparison.

Of Colouring Glafs.

To calcine Copper or Brass variously for various Colours: 1. This is done by *Spanish Ferretto*, which is thin Copper Plates laid in Pieces upon Sulphur *stratum super stratum*, covered, luted and calcined for two Hours, then beaten small and searfed. 2. It is prepared thus with Vitriol instead of Sulphur. 3. You may make a Calcination of Brass with Sulphur, thus: Take thin Plates in Bits, which lay upon Sulphur *stratum super stratum*, which calcine for 24 Hours, then powder and searfe it, and again reverberate it for twelve Days; grind, searfe and keep it for Use, to colour Glafs of a transparent red, yellow, Chalcedony. 4. Calcine Brass by it self, by putting Bits of Brass Plates into a Crucible, and luting on the Top, which makes Glafs of a Sky Colour and Sea-green. 5. Calcine Scales of Brass *per se*, which, if well done, will be red. Scales of Brass thrice calcined become of a Rustet Colour, and will make a Sea-green, an Emerald, a Turchois, and a beautiful Sky Colour, with many more.

To tinge Glafs of a Sea-green: Take Crystal Fritt, put it in a Pot, without any *Manganese* to it; for tho' this makes the Metal clear as to Crystal, yet it gives a Quality in the Glafs, which leaves the Colour black or very foul; melt it and take off the *Sandiver*: Being well and perfectly clarified, take of this Crystal twenty Pounds; Brass of the first, third, or sixth Preparation six Ounces; *Zaffer* prepared, one Ounce and half; mix these two Powders well, and put to the said Crystal at three Times: At first it makes the Metal swell very much, therefore mix the Glafs with the long Squares; then let it settle, that the Colour may be incorporated, for three Hours; then mix again, with the long Square, and take a Proof thereof. Put in rather too little than too much of the Colour, for then it may be easily heightened. At the End of 24 Hours, after it has had the due Colour, it may be wrought,

wrought, mixing it well from the Bottom of the Pot, that the Colour may be equally mixed and spread through all the Metal, and united with it, otherwise it settles to the Bottom, and the Metal at Top becomes clear. At *Moran* they take half Crystal Fritt, and half Pot-ash Fritt, and proceed as before; whence arises a fair Sea-green, but the former is fairer.

For a Sky-colour or Sea-green: Take Fritt made of the best Pot-ashes, which purify from the *Sandiver*, and to twenty Pounds thereof add Brass of the fourth Preparation six Ounces; and put it in at three Times, as aforesaid. At the End of two Hours re-mix the Metal and make a Proof; being well-coloured, leave it so for 24 Hours; so will you have an excellent Sky-colour, varied with other Colours, then work it.

Another Sea-green yet more excellent is thus made. Take *Caput mortuum* of *Vitriolum Veneris*, made without Corrosives, expose it to the Air for some Days, and draw from it, without any Artifice, a pale green Colour, which being powder'd, to six Ounces of it add of prepared *Zaffer* an Ounce and half, of Crystal purified as before twenty Pounds; work as in the first Green; so will you have the most beautiful of the three.

To make a golden yellow in Glass, or a kind of Amber Colour: Take of Crystal Fritts two Parts, of pure Pot-ashes Fritt one Part, both made of *Tarso*, which is much better than Sand; but if of natural Crystal it is still better; mix those well together, of which take twenty Pounds; of *Tartar* well searced and beaten fine, *Manganese* prepared, of each three Ounces: Mix these Powders well together first, then with the Fritts put them in a Furnace, and let them stand four Days on an ordinary Fire, because they rise much. When the Metal is purified and well coloured, which is commonly at the End of four Days, it will be very beautiful, and is then to be wrought into Vessels, &c. This Colour you may make deeper or lighter, by adding or diminishing the Powders or Fritts. If you would have it yet fairer and more beautiful, you must take all Crystal Fritt: Moreover, another Thing is to be observed; you must put the Powder at several Times into the Fritt, not into the Metal, for then it colours not.

To make a Black-colour in Glass: Take Pieces of broken Glass of many Colours, grind them small, and put to them Powder of *Zaffer* prepared two Parts, of *Manganese* prepared one Part; this Glass purified will be a most admirable Black, shining like Velter, and will serve for Tables, &c. Another brighter Black: Take Fritts of Crystal and Pot-ashes, of each two Pounds; Calx of Lead and Tin two Pounds; mix all together, and put them in a Pot in a Furnace well heated; and when the Metal is pure, add six Ounces of Powder made of Steel, well calcined, Scales of Iron finely powder'd, of each equal Parts; let them boil 12 Hours, now and then mixing the Metal, then work it. Another Black, yet brighter: Take of the best Pot-ash Fritt twenty Pounds, of *Manganese* prepared one Pound and a quarter, of *Tartar* finely powder'd six Pounds; mix them and put them into the Furnace leisurely; let the Metal purify, which will be at the End of four Days, mix it again well, then throw it into fair Water, and it will be a Black beyond any of the former.

To make a fair Milk-white, called *Lat-timo*: Take of Crystal Fritt twenty Pounds, of calcined Lead and Tin three Pounds and a half, *Manganese* prepared an Ounce; mix them all together and put them in a heated Pot, let them stand 12 Hours that the Materials may be melted, and at the End of eight Hours you may work it. It is a fair white; and to make a Peach Colour of it add a sufficient Quantity of prepar'd *Manganese*, and it will become of a Peach Colour; but then you must work it in time, otherwise it will fade again.

To make a deep Red: Take of Crystal Fritt twenty Pounds, of calcin'd Tin two Pounds, of broken Pieces of white Glass one Pound; mix these well together, put them in a Pot to run, and purify them; being melted, add leisurely to them one Ounce of the following Mixture; Steel calcin'd and ground, Scales of Iron finely ground, of each a like Quantity; mix them well together, and in about five Hours it will be perfected: Too much of the Powder makes the Metal black and dark, whereas it ought to be transparent. If it be too black or deep, put in of the fourth Preparation of Brass an Ounce, and mix them often, and in about three

three or four Repetitions it will become as red as Blood. Make several Trials, and when you find it right and good, work it speedily, otherwise it will lose its Colour and become black. You must also leave the Mouth of the Pot open, else the Colour will be lost. Let it not stand above ten Hours in the Furnace, and suffer it not to cool, if possible. If you find the Colour fade, put in some of the Steel and Iron Scale Powder aforesaid, and it will restore it again. 'Tis a nice Colour, and therefore to be wrought speedily.

For a transparent Red in Glass, like Blood: Take of common white Glass twenty Pounds, Glass of Lead twelve Pounds; put them into a Pot glazed with white Glass; when the Glass is boiled and refined, add of Copper calcined to Redness as much as you please; let them incorporate, mixing the Glass well, then add so much Tartar in Powder as may make the Glass Blood-red: If the Colour be too pale, add more of the calcined Copper and Tartar till the Colour is perfect. Another transparent Red: Dissolve Gold in *Aqua regis* often, pouring the Water upon it five or six times, then put this Powder of Gold in Earthen Pans to calcine in the Furnace till it becomes a red Powder, which will be about forty Days; add this Powder by little and little, in sufficient Quantities, to fine Crystal Glass which has often been cast into Water, and it will give the Red a transparent Ruby Colour.

To make Glass of Lead: Take of the best red Lead what Quantity you please, suppose fifteen Pounds; of Crystal Friit, or common white Friit twelve Pounds; mix them as well as may be, and put them into a Crucible with a strong Bottom, which put into two other Crucibles of like Strength, within one another, and then put them in a Fire of Suppression: The Lead will pass through the first and second Crucible, and in the third you will find the Glass. Or thus: Take of *Minium* fifteen Pounds, Salt of Pot-ashes eight Pounds, of Sand the same Quantity; mix and put them into Crucibles as before, for fear of breaking, and make a Fire of Suppression; so you will have very good Glass of Lead. To work the said Glass of Lead: Before you take it up on the hollow Iron Pipe let it be a little raised in the Pot;

then take it out and let it cool a little, and so work it on the clean Marble. At first let the Marble be well wetted with cold Water, otherwise the Glass will scale it, and be it self discoloured, incorporating the Scales into it self; and wet the Marble continually whilst you work this Glass, otherwise it will lose all its Fairness and Beauty; and do this as often as you take the Metal out of the Pot. This Kind of Glass is so tender and brittle, that if it be not cool'd a little in the Furnace before it is wrought into Drinking-Glasses, Cups, and other Vessels, and taken a little at a time and held on the Pipe, and the Marble continually wetted, it will be impossible to work it.

To make a gold Yellow in Glass of Lead: Take Crystal Friit, calcin'd Lead, or *Minium*, of each sixteen Pounds; mix and searce them well, and add to them of Brass thrice calcined six Ounces, of *Crocus Martis* made with Vinegar forty eight Grains; put them well mixed into the Furnace; let them stand twelve Hours, in which Time it will be clear, mix them and make a Proof: If it be greenish, add a little more *Crocus Martis* till it becomes of a most fair gold Colour.

A transparent Red in Glass is made thus: Take impalpable Powder of the best *Manganese*, refined Nitre, of each equal Parts; calcine and reverberate them 24 Hours, then wash away the Salt with fair warm Water, and dry the Powder, which will be of a red Colour: Add to it its equal Weight of *Sal ammoniack*, grind them together on a Porphyry with Spirit of Vinegar, then sublime them in Sand for twelve Hours in a Retort with a large Body and a long Neck; break the Glass and take what is sublimed to the Neck and Body of the Retort, and mix it with what remains at Bottom, adding as much fresh *Sal ammoniack* as is wanted in the Weight of the first Sublimation: Grind as before on a Porphyry, with the Spirit of Vinegar, and sublime also in the same Manner. Repeat this Work so long, till the *Manganese* remain all fusible at the Bottom.

A most excellent Blue to colour Glass: Dissolve Copper in *Aqua fortis* made with Nitre and Hungarian or Roman Viniol, which sharpens the *Aqua fortis*, and yields some Particles of Copper to it; then precipitate it with *Spelter* or *Zink*, and this has sometimes been

been done with the Refiners double Water impregnated with Copper: By this Means you shall have a most incomparable Blue for colouring of Glafs. There is almost an infinite Variety of Ways to colour Glafs, among which I thought these few might not be unacceptable, to give the Curious a little Insight into this Art, which has of late Years received such vast Improvement.

I must here humbly ask Pardon of the Reader for having carried him so far out of his Road, by a Digression which he may think not so natural and proper: But as I was led naturally into it, and as the Subject of it is very curious and but little known, I may hope to be the more easily forgiven; especially since this noble Art has received such Improvements, and is become so considerable a Manufacture here in *England*. They that would see it in its Perfection, may satisfy themselves at the Work-house of that excellent Artist Mr. Gumly, and at his long Room over the *New-Exchange*, where they will see the finest Collection of Looking-glasses, Sconces, &c. in the World.

TABLE CXXIX. Fig. 2.

GENUS. XV.

Telephium, Dypine, or Live-long.

O Dypine is a Plant with a Rose-Flower A, consisting of many Leaves B, placed orbicularly: Out of whose many-leav'd Flower-cup C, rises the Pointal D, which afterwards turns to a three-corner'd Fruit E, consisting of one Chest F, and full of Seeds G, which are commonly roundish H. To these Marks must be added, That the Leaves are alternately placed on the Stalk.

The Species of Dypine are,

1. *Telephium Dioscoridis*. Imper. 665. *Dioscorides's Dypine*. *Telephium legitimum* Imperati vii. Clus. Hist. lxxvii. *Telephium repens folio non deciduo*. C. B. Pin. 287.

The Root is about the Thickness of one's Finger, and a Palm and a half long, ligneous, furnished with few but strong Fibres, of a

Box Colour without, white within, lively; and spreading six, eight, or more Branches upon the Ground, that are a Palm or a Span long, round and slender; on which are set many Leaves placed alternately on both Sides, and having no remarkable Taste, resembling those of *Marjoram*, smooth, and of a yellowish green, with one Nerve running along lengthwise: But the first Leaves, and which are next to the Ground, differ very much from those that grow on the Branches, as being longish. The Flowers are very thick on the Tops of the Branches, and are bending like the Flowers of *Scorpioides*, consisting of white Leaves, with yellow Chives, five of them being greenish on the Outside. To these succeed dark three-corner'd Heads, full of small, black, bitter Seed, equal in Size to Poppy Seed, having a Cavity impressed on one Side, and the other gibbous.

2. *Telephium Americanum*, *Portulaca folio*. *American Dypine*, with a Purslane Leaf. *Chamaecistus Americana*, *Portulaca folio*, flore albo. Par. Bat. *Portulaca Americana*, seu *Corassavica*, *latifolia*, *erecta*, *floribus albis*. Prodr. Par. Bat.

It rises a Cubit high, with an uneven Stalk, which is round, smooth and full of Juice, and thick-set with disorderly Branches, which are clothed with thickish Leaves, which dilate themselves from a narrow Bottom to a broad blunt End, very much resembling those of garden Purslane, but larger and full of insipid watery Juice. The Tops of the Stalk and Branches are divided into little three-corner'd and as it were winged Branches, that are a Digit and a half long, and they again into other shorter ones, which are generally void of Leaves, and are crowned as it were in a spiked Series with white five-leav'd Flowers, that rest in a bivalved, herby and fleeting Cup. To these succeed roundish Seed-vessels bigger than Peas, which when ripe split into two, but generally three-keel'd thin Leaves, and shed small blackish Seeds. The Root seem'd to be fibrous, white and annual.

It grew from Seed brought from the Island of *Santa Cruz*; and the Natives eat the Leaves of this Plant as we eat Purslane.

3. *Telephium maritimum*, *Sedi folio*, flore rubello. *Maritime Dypine*, with a *Sedum* green Leaf, and a red Flower. *Cistus humilis*

humilis aizoides, maritimus, Africanus, flore rubello. H. L. Bar.

It stands upon a small whitish red Root : The Stalk is of the same Colour, nine Inches high, and round, sometimes split in two, and sometimes in four : The Leaves are taper and smooth, resembling the small, yellow, sharp-leav'd *Sengreen*, but thicker and four times longer. Among these stands up a small, slender, naked, reddish Foot-stalk which is half a Palm long, parted at Top into several very small Branches, which sustain a small, reddish, fleeting, five-leav'd Flower, which opens to the Meridian Sun, but shuts when it declines, or withers quite, leaving a round three-corner'd Seed-vessel, that splits into three keeled Leaves, and sheds small, flat, black Seeds. It is to be met with frequently on the Seashore at the *Cape of Good hope*, among the Species of the *Ficus aizoides*, and consequently requires the same Culture. It loves a sandy dry Soil, and cannot well bear the Injuries of the Weather. It springs up from Seed no less than from Slips cut off and thrust into the Earth, and continues green all the Year : The Taste is watery, and the Smell none.

4. *Telephium maritimum*, Sedi folio, flore albo. Maritime Oypine, with a Sengreen Leaf, and a white Flower. *Cistus humilis, aizoides, Africanus, glauco folio, flore albo.* Par. Bar.

This Plant is said to have received its Name from *Telephus* King of *Mysia*, who by it was cured of the desperate Wounds which he received from *Achilles*.

It is but little used by modern Physicians, unless, that it is sometimes boiled in Decoctions for the Stone in the Kidneys.

Mr. *Lemery* says, That it contains abundance of Phlegm and Oil, and but little Salr.

It is, says the same Author, cleansing, cooling, vulnerary, consolidating, and resolving.

TABLE CXXIX. Fig. 3.

GENUS XVI.

Helianthemum, Dwarf Cistus, or Small Sun-Flower.

Small Sun-Flower is a Plant with a Rose-Flower A, consisting of many Leaves B, placed orbicularly : Out of whose many-leav'd Flower-cup C, rises the Pointal D, which afterwards turns to a globular Fruit E, which gapes in three Parts F, and is full of Seeds G, which are generally roundish H, and fixed to small Capillaments as to a Placenta.

The Species of Small Sun-Flower are,

1. *Helianthemum vulgare, flore luteo.* F. B. 2. 15. Common Small Sun-Flower, with a yellow Flower. *Chamaecistus vulgaris, flore luteo.* C. B. Pin. 465. *Flos Solis.* Dod. Pempr. 193.

From a white ligneous Root spring up several slender, round, hairy Stalks, spreading upon the Ground, cloathed with oblong narrow Leaves, placed opposite to one another in Couples, resting upon short Foot-stalks, green above and hoary underneath, with blunt Points. On the Top stand yellow five-leav'd Flowers ranged as it were in long Spikes one above another, and hanging at Foot-stalks half an Inch long, with many yellow Chives within, and resting in a three-leav'd Flower-cup which is striped with white Lines. To the Flower succeeds a three-corner'd large Seed-vessel, which contains several three-corner'd reddish Seeds. At the Foot-stalk of each Flower is set a long narrow Leaf. When the Flower falls off, the Seeds bend downwards. It flowers in June.

It abounds in dry, especially chalky Mountains.

2. *Helianthemum vulgare, flore dilutior.* Common Small Sun-Flower, with a fainter Flower.

3. *Helianthemum vulgare, flore albo.* Common Small Sun-Flower, with a white Flower. *Chamaecistus vulgaris, flore albo.* Hort. Edinb.

4. *Helianthemum foliis majoribus, flore albo.* *J. B. 2. 16.* Greater-leav'd Small Sun-Flower, with a white Flower. *Chamaecistus vulgaris, flore albo, majore.* C. B. Pin. 466. *Helianthemum albis floribus.* Lob.

This differs not from the first in any thing unless in the Bigness and white Colour of the Flower; and is very rare to be met with.

5. *Helianthemum album, Germanicum.* *Tabern. Icon. 1062.* White German Small Sun-Flower.

6. *Helianthemum flore albo, folio angusto, hirsuto.* *J. B. 2. 17.* White-flower'd Small Sun-Flower, with a narrow hairy Leaf. *Chamaecistus foliis Thymi incanis.* C. B. Pin. 466. *Chamaecistus tertius.* Clus. Hist. 74.

This Plant has several small hoary Stalks, which are divided into other bending Branches. The Leaves are like those of the harder *Thyme*, and are small, short, hairy, ash-coloured, growing in Fours, and sometimes more from the same Joint. The Flower and the Seed-vessels gape into three Keels, with hairy Covers, as in common *Small Sun-Flower*. The Root is thickish, warped, ligneous, divided into several Parts, and has many Heads.

Perhaps, says *J. Bauhinus*, *Lobel* confounds this with the *Helianthemum tenuifolium glabrum*; for the Plants are like one another; but appear to be different to such as observe them carefully.

Mr. Ray observed this Plant about *Montpelier*, and found that the undermost Leaves on the Stalk were very small, almost such as those of *Camphorata Monspelienfis*, but the upper Leaves were very different, being green, and like the Leaves of *Helianthemum tenuifolium glabrum, flore luteo*, from which he judges, that *Lobel* did not without Reason confound these Plants: But he afterwards observed about *Marseilles*, a Species of *Chamaecistus*, all whose Leaves were very small, like those of *Camphorata*, smooth, and many growing together; and also another Species, with a *Thyme* Leaf, but longer, but did not see its Flower or Seed-vessel.

7. *Helianthemum saxatile, foliis & caulibus incanis, oblongis, floribus albis, Appennini montis.* *Ment. Pug. Tab. 8.* Rock Small Sun-Flower of the Appennines, with heavy oblong Leaves and Stalks, and white flowers.

8. *Helianthemum Serpilli folio, flore majore, aureo, odorato.* Small Sun-Flower with a Mother of Thyme Leaf, and a large, golden, sweet-smelling Flower. *Chamaecistus Serpilli folio nigricante & hirsuto, flore aureo, odorato.* *J. B. 2. 17.* *Chamaecistus repens, Serpilli folio, luteo.* C. B. Pin. 466. *Chamaecistus secundus.* Clus. Hist. 73.

This Species produces many small Branches from the same Root, which are slender, oblong, spreading upon the Surface of the Ground, and reddish; on which are stretched small Leaves in a certain Order and double Series, almost like *Mother of Thyme*, blackish, hairy and thick, but longer and whiter under the Rise of the Flowers on the young Branches. The Flowers grow in Threes or Fours on the Ends of these same young Branches, resting upon oblong and hairy Foot-stalks; equal in Size to the Flowers of common *Small Sun-Flower*, but are of a perfect golden Colour, and sweet smelled. *Clusius*, who is the Author of this Description, could not observe the Seed. The Root is divided into many Parts, and capillated with Fibres that spread far and wide.

Clusius never found this Plant any where but on the Tops of the *Austrian* and *Stirian* Mountains, and that only once in flower in the Month of *August*. Being transplanted to Gardens it flower'd in *May*; but the Flowers with their Foot-stalks being too fleeting, afforded no Opportunity of observing the Seed.

9. *Helianthemum Serpilli folio, flore minore, aureo, odorato.* Small Sun-Flower, with a Mother of Thyme Leaf, and a smaller, golden, sweet smelling Flower. *Cistus Helianthemos, flore parvo, luteo.* *J. B. 2. 17.*

10. *Helianthemum angustifolium, luteum.* Yellow, narrow-leav'd, Small Sun-Flower. *Chamaecistus angustifolia.* C. B. Pin. 466. *Chamaecistus angustifolius, flore luteo.* *Clusii.* *J. B. 2. 17.* *Chamaecistus sexta.* Clus. Hist. 75.

This Plant has Branches nine Inches long, and better, that spread upon the Ground, with many oblong narrow Leaves set on them, which are ranged in no certain and regular Order, but are generally placed confusedly, different from the Arrangement of the Leaves in all Kinds of the *Cistus*, of a sort

sort of a gummy Taste at first, and afterwards bitterish. The Extremities of the Branches are possessed by two or three Flowers of a yellow Colour, with their *Stamina* in the Middle : to which succeed three-corner'd Heads, which are pretty big, and contain pretty big and uneven Seed. The Root is ligneous, hard and lively, covered with a black Bark, and spread into several Sprays.

This is a rare Plant ; and *Clusius* never found but a few Plants of this Sort flowering in the Month of *June*, and quickly bearing ripe Seed, only on the Hill which overlooks the Baths of *Baden* four Miles from *Vienna* in *Austria*, and in the City of *Hamburg* two Miles from *Posen* in *Hungary*.

11. *Helianthemum foliis Myrti minoris, subtus incanis.* Small Sun-Flower with small Myrtle Leaves that are hoary underneath. *Chamaecistus foliis Myrti minoris, incanis.* C. B. Pin. 466. *Chamaecistus foliis Myrti Tarentine, canis vel cinereis.* J. B. 2. 18. *Chamaecistus tertia.* Clus. Hist. 74.

This Species has Branches nine Inches long, spreading upon the Ground, which are clothed with Leaves growing in Couples always placed opposite to one another, equal to or narrower than the Leaves of *Myrtus Tarentina*, covered on the upper Side with a certain ash-coloured Down, but altogether hoary underneath, and endowed with an astringent and somewhat bitter Taste. Then it puts forth little Foot-stalks two or three Inches long, on which stand five or six Flowers in Shape almost like the *Chamaecistus Serpillifolius*, of a yellow Colour. To these succeed small three-corner'd Heads, full of small, uneven, reddish Seed. The Root is ligneous, hard and lively. In this the Branches that sustain the Flowers are commonly dried and broken, as soon as the Seed is ripe and drops.

It grows in very great Abundance on all those Mountains, which run in a continued Range, from *Calenberg* that lies on the *Danube*, to the *Austrian* Mountains. It flowers in *May*, and the Seed is ripe in *June*. It is found likewise on the Hill of *Capouladon* not far from *Montpelier*.

12. *Helianthemum tenuifolium, glabrum, erectum, luteo flore.* J. B. 2. 18. Small-leav'd, smooth, upright Small Sun-Flower, with a yellow Flower. *Chama-*

cistus Erica folio, luteus, elatior. C. B. Pin. 466.

From a thick ligneous Root that is covered with a blackish Bark, rise several ligneous Branches nine Inches long, sometimes upright and sometimes spread upon the Ground, furnished with very small and narrow Leaves, as in the *Coris Monspeffulana*, or the *Erica arborecens*, which are greenish and reddish, smooth, and not opposite to one another as in the common Kind, but stretching along the Branches alternately and single. It seems to be more branched than the *Helianthemum Thymifolium*. The Flowers are much smaller than in the common Sort, are of a golden Colour, and quickly decay : To which succeed large shining Seed-vessels, which, when the Seed is ripe, open into three three-corner'd Leaves shaped like Saucers ; and these Seed-vessels are infolded in three Coats. The Seed is copious, rusty, and three-corner'd.

It grows at the Bottom of *Jura*, and on the rocky Hills about *Montpelier* and *Geneva* in great plenty. It is of two Sorts, the taller and the lower. These, says *Magnol*, not only differ in Bigness, but also in the Manner of keeping their Seed ; for as soon as the Seed-vessel of the upright one opens, the Seed immediately drops, as happens to others ; but in the lower, tho' the Seed-vessel open, and hang with its Mouth down, yet the Seed remains, as if it stuck to the Seed-vessel.

13. *Helianthemum tenuifolium, glabrum, luteo flore, per humum sparsum.* J. B. 2. 18. Small-leav'd, smooth Small Sun-Flower, spreading upon the Ground, with a yellow Flower. *Chamaecistus Erica folio luteus, humilior.* C. B. Pin. 466. *Cistus humilis, angustifolius, Coris Monspelienfis foliis.* *Selago Monspeliensum, Cistus quintus Assatii & Erica Chrysanthemos minima, nostra.* Lob. Obs. 552.

14. *Helianthemum Alpinum, folio Pileollæ minoris Fuchii.* J. B. 2. 18. Mountain Small Sun-Flower, with a small Mouse-ear Leaf.

This is a shrubby Herb, that has oblong Leaves, like the smaller Mouse-ear of *Fuchius*, more whitish on the under Side, and on the upper Side green and hairy, but not so much so as underneath. The Flower is yellow as in common Small Sun-Flower.

The Plant gathered by Mr. Ray on Mount Saleva near Geneva, thrust up Stalks above a Palm high, which were small, round, hoary, and not branched, begirt with Leaves growing in Couples over against one another at long Distances, bearing on their Tops four or five Flowers mounting the Stalks singly, hanging at small Foot-stalks, small, and of a yellow Colour. The lower Leaves were almost an Inch long or less, oblong, ending in a Point, ash-coloured, and almost white: Those that clothed the Stalks were shorter, and, for their Size, broader. D. 7^a. Newton found this Plant in the mountainous Parts of the North of England.

It grows in great plenty at the Bottom of Saleva near Geneva:

15. *Helianthemum folio Thymi incano*. J. B. 2. 19. Small Sun-Flower with a hoary Thyme Leaf. *Chamaecistus tenuifolius*, *Narbonensis*. H. R. Par.

16. *Helianthemum Thymi folio glabro*. Small Sun-Flower with a smooth Thyme Leaf. *Cistus folio Thymi*. C. B. Pin. 465. Clus. Hist. 72. *Cistus folio Thymi Clusii*, cum maculis in flore. J. B. 2. 6.

This Plant grows only a Foot high, with small ligneous Branches, which are notwithstanding pretty brittle and blackish, flat, and bedewed with a certain clammy Moisture. The Leaves are much smaller than those of the *Cistus foliis Rorismarini*, and not much different from Thyme Leaves. Clusius had not an Opportunity to observe the Flowers, but he observed that the Heads came forth as it were Umbel-fashion on oblong Branches, and were small, open above, empty at that Time, and dry with their Branches.

This Species grows in the outmost Part of Andalusia, which looks to New Castile.

17. *Helianthemum*, five *Cistus humilis*, folio Sampsuchi, capitulis valde hirsutis. J. B. 2. 20. Small Sun-Flower, or low Cistus, with a Hartsick Leaf, and very hairy Heads.

18. *Helianthemum ad Nummulariam accedens*. J. B. 2. 20. Small Sun-Flower resembling Pennywort. *Chamaecistus Nummularius*. H. R. Par.

19. *Helianthemum foliis Polii montani*. Small Sun-Flower with Poley-mountain Leaves. *Cistus Helianthemus*, folio *Polii montani*. J. B. 2. 19.

20. *Helianthemum frutescens*, folio *Majoranae* incano. Shrub Small Sun-Flower, with a hoary Marjoram Leaf. *Cistus humilis prima*. Clus. Hist. 151.

21. *Helianthemum Halimi folio brevior*, obtuso. Small Sun-Flower with a short blunt Sea-Purslane Leaf. *Cistus folio Halimi prima*. Clus. Hist. 71. *Cistus femina*, *Portulacæ marinae folio latiore*, obtuso. C. B. Pin. 465. *Cistus folio Halimi*, flore luteo. J. B. 2. 5.

It puts forth slender and pretty shrubby Branches, a Cubit high or better: On which are set Leaves like those of Sea-Purslane, but all over hairy as the *Halimus*, but with a blunter Point, of a somewhat acid and astringent Taste. On the Tops of the Branches are many Flowers of a yellow Colour, like those of common Small Sun-Flower, containing their Fibres in the Middle. To these succeed longish and triangular Heads, containing small reddish Seed.

22. *Helianthemum folio Halimi latiore*, mucronato. Small Sun-Flower with a broad, pointed Sea-Purslane Leaf. *Cistus femina*, *Portulacæ marinae folio angustiore*, mucronata. C. B. Pin. 465. *Cistus folio Halimi longiore*, incano. J. B. 2. 5. *Cistus folio Halimi secunda*. Clus. Hist. 71.

This Species is taller than the former, with firm and hoary Branches as the former. It likewise has Leaves of Sea-Purslane, but somewhat longer, narrower, more pointed with a raised Back, but all over hoary and dry, and of a somewhat acid and astringent Taste. Clusius saw neither the Flower nor Seed of this Species.

Both grow commonly in Portugal, in a sandy Soil that is within the Reach of the Sea Gulfs, among the Heath not far from Lisbon; not being seen any where else by Clusius.

23. *Helianthemum Ledi folio*. Small Sun-Flower with a Ledum Leaf. *Cistus Ledi folio*. C. B. Pin. 465. *Cistus annuus folio Ledi*. Lob. Icon. 118.

This Species rises higher with greater Stems, but not less hairy than those of the following; having two or three Leaves set at the several Joints, longer and narrower than that just mentioned, and smaller pointed, somewhat rough, and of a deeper green Colour. The Flowers fade as quickly, and grow single towards the Tops, with the Leaves

Leaves as large as the following, and of a fair pale yellow Colour; with Heads and Seed succeeding in like manner, and also perishing yearly: Yet Mr. Parkinson says, That it has sometimes endured the *Winter* in his Garden, when it had not flowered with him in the *Summer* before.

Magnol says, He has often gathered it in a Place called *la Garrigue du Tarrall*, and about *Saleneuf*, in the unlaboured grassy Fields beyond the Bridge.

24. *Helianthemum Salicis folio*. Small Sun-Flower with a Willow Leaf. *Cistus folio Salicis*. C. B. Pin. 465. *Cistus annuus primus Clusio, folio rotundiore*. J. B. 2. 13. *Cistus annuus, folio Salicis*. Lob. Icon. 118.

When this Plant is cultivated in Gardens, it rises sometimes a Cubit high and better, with sometimes one, sometimes more, five and even six Stalks, the Middle tallest, but all of them hairy and round, from one and the same ligneous and black Root. The Leaves are set in Couples at the Joints, like those of *Marjoram* but longer, especially about the Middle of the Stalk; for the lower ones are rounder, and the upper ones narrower and hairy. At the Sides of each Joint, at each Leaf, are set two small Leaves. At the Tops of the Branches are set two, three, or four pale or whitish Flowers, every one at its own Joint, standing on a short hairy Foot-stalk, with one long, and two small Leaves set at its Rise. To the Flowers succeed three-corner'd, short and big Seed-vessels, almost equal to those of *Cicera*, which, when ripe, gape as it were into three broad, barky, reddish Saucers, and are begirt with three small hairy Leaves which have Ribs. Within is a thin shining Membrane, to which adhere many Seeds not so red, smaller than Poppy Seed, uneven, and ripe in *August*.

Clusius observed this Plant growing on the Borders of the Vineyards about *Salamanca*, and in the Kingdom of *Granada*.

The People of *Castile* call it *Turmena*, i. e. *Tuberaria*, because perhaps the *Tubera* or Spanish Trubber, or under-ground Mushrooms grow in the same Place with it.

25. *Helianthemum Lavandulae folio*. Small Sun-Flower with a Lavender Leaf. *Cistus folio spicae*. C. B. Pin. 465. *Cistus folio Lavandulae Clusio, forte idem cum Helianthemum*

refo. J. B. 2. 5. *Cistus folio Lavandulae*. Clus. Hist. 72.

It commonly rises a Cubit high, and has a great many short Branches; on which are set thick narrow hoary Leaves, very like *Lavender* Leaves, and of an astringent Taste. The Flowers are small and white, and not much unlike those of *Cistus Halimi folio*. Clusius did not observe the Seed.

It is so very like *Lavender*, that, excepting the Taste and Smell, it might be taken for it when it flowers.

Clusius found it no where but in the Kingdom of *Valentia*, in dry and rocky Places, four Miles from the City of *Valentia*, in the Beginning of *April*.

26. *Helianthemum folio maculoso*. Col. Part. 2. 77. Small Sun-Flower with a stained or spotted Leaf. *Cistus flore pallido, punicante macula insignito*. C. B. Pin. 465. *Cistus annuus secundus Clusio, flore pallido, macula punicante insignito*. J. B. 2. 13.

It puts forth Leaves lying upon the Ground, parted by three Nerves and oblong, after the manner of smaller *Centaury*, but sharper. Myconus says, they are like *Plantain* Leaves, but smaller, creeping on the Ground and hairy; but Pona says, they are like *Olive* Leaves. Columna observed but one Stalk, but Myconus paints two, a Foot high, tender, upright, and not very much branched, square, hairy and greenish. The Leaves are placed alternately in Couples at the Joints, and are small and hairy. On the Top, on long Foot-stalks, stand several five-leav'd yellow Flowers, each leaf being marked with a scarlet Spot of a black red Colour, nodding or bending before they blow, and when they have Fruit, and erect when they gape, having a thick Pointal in the Middle, surrounded by many *Stamina*. Very tender and three-corner'd Heads contain small ash-coloured Seed. The Leaves, which are of a faint green Colour together with the Branches, are covered with a certain fat and clammy Moisture, in the Heat of *Summer*.

Mr. Ray found this Plant at the Bottom of Mount *Vesuvius*, with a Flower not spotted; of which Sort Columna likewise observed many in the same Place, growing together with the spotted ones.

Myconus

Myconus sent it from *Spain*, where he says it grows every where in Meadows and in fat and earthy Places. It is nourished by a single, ligneous, small and somewhat fibrous Root.

Magnol takes the *Tuberaria major* & *minor* *Myconi* to be the same Species, that differs in Size only according to the Nature of a moister or drier Soil; and says that both grow in great plenty in the Grove of *Gramont*; and that he found it growing in many Places with very narrow Leaves, very much resembling the narrow-leav'd Species of *Cistus*, *J. B.* Mr. *Ray* is entirely of his Mind in this, who is absolutely against multiplying Species without Reason.

27. *Helianthemum folio Thymi, floribus umbellatis.* Small Sun-Flower with a Thyme Leaf, and umbell'd Flowers. *Cistus Ledon folio Thymi.* C. B. Pin. 465. *Cistus Ledon Thymi foliis Clusii.* J. B. 2. 12. *Ledon decimum.* Clus. Hist. 87.

28. *Helianthemum foliis Rosmarini splendentibus, subrus incanis.* Small Sun-Flower with shining Rosemary Leaves, hoary underneath. *Cistus Ledon, foliis Rosmarini, subtus incanis.* C. B. Pin. 467. *Cistus Ledon foliis Rosmarini coronariae Clusii flore luteo.* J. B. 2. 11. *Ledon octavum.* Clus. Hist. 80

This Plant rises a Cubit high, with spreading Branches: The Leaves are small, of a dark green above, but whitish underneath; so that they would seem to be the same with the Leaves of *Rosmarinus coronaria*, but are of an astringent Taste, tho' they are besmear'd as it were with a certain clammy fat Moisture, as well as the tender Branches. Many small Flowers grow along the Branches, of a yellow Colour, consisting of five Leaves, and like a small *Wood Rose*. The dark ash-coloured Seed is contained in small Heads or Seed-vessels.

It grows commonly in those uncultivated Places on this Side of the *Tagus* above *Lisbon* with the *Cistus foliis Halimi*, &c.

29. *Helianthemum folio Sampfuchi.* Small Sun-Flower with a Mustick Leaf. *Cistus folio Sampfuchi incano.* C. B. Pin. 465. *Cistus folio Sampfuchi Clusii, cui macula in flore.* J. B. 2. 6.

This is a Shrub that puts forth many slender Branches; on which are set small,

round, hoary Leaves like *Mustick Leaves*, but a little smaller, with a raised Back, standing upon Foot-stalks opposite to one another, as in the other Kinds of *Cistus*, and having an Astringency, with a certain Acidity and Saltiness. The Flowers are numerous and white on the Tops of the Branches, having a black purple Spot staining the Middle of the Leaves, while the Middle or Center of the Flower is possessed by yellow Hairs and *Stamina*. Then follow the Heads, which are three-corner'd and small like those of *Flax*, in which is contained small Seed like that of *Henbane*, of a blackish white or ash-colour. But that whole oblong Branch which sustains the Flower and the Heads, withers when the Seed is ripe, as in all the Kinds of *Cistus*.

Clusius found this Species in great plenty about *Cavaicejo*, and all over *Andalusia*, between the Rivers *Tagus* and *Ana*.

30. *Helianthemum Massiliense, Coridis folio.* Small Sun-Flower of *Marseilles*, with a fair, low, Heath-Pine Leaf. *Chamaecistus Massiliensis, foliis Camphorata similibus & glabris.* Raii Hist. 1016.

31. *Helianthemum Polii folio ampliore, Lusitanicum.* Portuguese Small Sun-Flower, with a large Poley-mountain Leaf.

32. *Helianthemum Polii folio angustiore, Lusitanicum.* Portuguese Small Sun-Flower, with a narrow Poley-mountain Leaf.

33. *Helianthemum humilium, Lusitanicum, Halimi folio nigriore, magno flore luteo.* Low Portuguese Small Sun-Flower, with a black Sea-Purslane Leaf, and a large yellow flower.

34. *Helianthemum Algarvienne, Halimi folio, flore luteo, punicante macula insignito.* Small Sun-Flower of *Algarve*, with a Sea-Purslane Leaf, and a yellow flower marked with a scarlet Spot.

35. *Helianthemum Hispanicum, Halimi folio rotundiore.* Spanish Small Sun-Flower, with a round Sea-Purslane Leaf.

36. *Helianthemum Hispanicum, Halimi folio angustiore.* Spanish Small Sun-Flower, with a narrow Sea-Purslane Leaf.

37. *Helianthemum Hispanicum, Halimi folio minimo.* Spanish Small Sun-Flower, with the smallest Sea-Purslane Leaf.

38. *Heli-*

38. *Helianthemum Lusitanicum*, Mari folio incano, flore luteo. Portuguese Small Sun-Flower, with a hoary Hattick Leaf, and a yellow Flower.

39. *Helianthemum Lusitanicum*, Mari folio incano, capulis valde hirsutis. Portuguese Small Sun-Flower, with a hoary Hattick Leaf, and very hairy Sred-vessels.

40. *Helianthemum Lusitanicum*, Majoranæ folio, flore luteo, punicante maculâ insignito. Portuguese Small Sun-Flower, with a Marjoram Leaf, and a yellow Flower, marked with a scarlet Spot.

41. *Helianthemum Hispanicum*, Halimi folio amplissimo, incano & nervoso. Spanish Small Sun-Flower, with a very large hairy and nervous Sea-Purslane Leaf. *Cistus Halimi folio, flore luteo amplo, maximus, Hispanicus*. Bar. Icon.

42. *Helianthemum Plantaginis folio, perenne*. Perennial Small Sun-Flower, with a Plantain Leaf. *Tuberaria nostras*. J. B. 2. 12. *Tuberaria major Myconi*. Ejusd. ibid.

43. *Helianthemum Hispanicum*, angusto folio, flore carneo. Spanish Small Sun-Flower, with a narrow Leaf, and a Carnation Flower.

44. *Helianthemum Alpinum*, Oleæ folio subtus incano. Mountain Small Sun-Flower, with an Olive Leaf hoary underneath.

45. *Helianthemum Lusitanicum*, Bupleuri folio, flore maculato. Portuguese Small Sun-Flower, with a Hares-ear Leaf, and a spotted Flower.

46. *Helianthemum Lusitanicum*, Globulariæ folio. Portuguese Small Sun-Flower, with a Daisy Leaf.

47. *Helianthemum Lusitanicum*, annuum, Plantaginis folio, flore tricolore. Portuguese annual Small Sun-Flower, with a Plantain Leaf, and a three-coloured Flower.

48. *Helianthemum Hispanicum*, folio minimo, rotundiore. Spanish Small Sun-Flower, with a very small roundish Leaf.

49. *Helianthemum Hispanicum*, Origanifolio subtus incano. Spanish Small Sun-Flower, with an Oregan Leaf hoary underneath.

50. *Helianthemum Hispanicum*, Ocimi folio subtus incano. Spanish Small Sun-

Flower, with a sweet Basil Leaf hoary underneath.

51. *Helianthemum pumilum*, Porru-lacæ marinæ folio argenteo. Dwarf Small Sun-Flower, with a silver Sea-Purslane Leaf.

52. *Helianthemum Creticum*, Linariæ folio, flore croceo. Candy Small Sun-Flower, with a Lead-star Leaf, and a Cassion Flower.

53. *Helianthemum Creticum*, annuum lato Plantaginis folio, flore aureo. Annual Candy Small Sun-Flower, with a broad Plantain Leaf, and a golden Flower.

Helianthemum comes from two Greek Words ἥλιος the Sun, and ἄνθος a Flower, as if you should say, The Sun-Flower.

Tho' all the Species before mentioned have much the same Vertues, yet the first Species is almost the only One used in the Shops. It is a vulnerary and astringent Plant, for which Reason it may be used after the Manner or instead of *Comfrey* in Spitting of Blood, in Lasks or Fluxes, in the Falling of the Uvula, in the immoderate flowing of the Terms, and generally in all Affections where there is too great a Flux of Blood. And from hence some fancy it to be *Panax Chironium*; and it is commonly called the *Consolida aurea* of the German Botanists.

The Decoction of this Plant in Red Wine with *Comfrey* and *Plantain* is prescribed against Spitting of Blood, a Diarrhœa, Dysentery, &c.

It is boiled in Red Wine for the Ulcers of the Mouth and Secret Parts, with a little Rock Alom; and the Mouth is washed with the Decoction, as well as the Ulcers of the said Parts.

Tabernaemontanus esteems this an excellent Gargle for the Mouth and Throat.

Parkinson says, That the Decoction of the Herb and Root solders and closes up the Lips of green Wounds; it being very powerful in consolidating, binding and strengthening any Part; and is as effectual as any *Comfrey* for Burtlings, strengthening of weak Joints, or any other binding Quality, in all Cases where *Comfrey* is proper. The distilled Water of the Herb is said to beautify the Skin of the Face, or any other Part of the Body.

TABLE CXXIX. Fig. 4.

GENUS XVII.

Androsæmum, Tutſan, or Park-Leaves.

Tutſan is a Plant with a Rose-Flower A, conſiſting of ſeveral Leaves B 1 2 3 4 5, placed orbicularly: Out of whoſe many-leav'd Flower-cup C, riſes the Pointal D, which afterwards turns to a Fruit E, or an oval Berry with one Cheſt F, and full of Seeds that are generally ſmall I, fixed or adhering to a threefold Placenta H.

Mr. Tournefort obſerved but one Species of Tutſan, which is,

Androsæmum maximum, frutescens. C. B. Pin. 280. Great ſhrub Tutſan. Siciliana, aliis Ciciliana vel Androsæmon. J. B. 3. 384. Androsæmum. Dod. Pempr. 78. This is the Clymenum Italarum. Ger. and the Androsæmum vulgare. Park.

It has a thick, ligneous, reddiſh Root, that puts forth very long Fibres. The Stalks are ligneous, a Cubit, and a Cubit and a half long, round, reddiſh, ſmooth, and winged with little membranous Wings. The Leaves, which are ſet over againſt one another in Couples, reſemble the Leaves of *Honyſuckle*, but are not bored through by the Stalk, and are ſmooth, of a dark green Colour above and whitiſh underneath. The Flowers are like thoſe of *St. John's-wort*, but ſmaller and not ſo ſightly, according to Mr. Ray's Obſervation, tho' *Bauhinus* affirms the contrary, conſiſting of five yellow Leaves, under which are placed as many green ones, which grow larger when the Flowers drop. The Seed-veſſel, which is rounder than in *St. John's-wort*, reſembles a Berry: For its outer Membrane or Pericarpium, which contains the Seed, is thick and fleſhy, which however

dries and withers before the Seed is ripe. It ſeems alſo to be compoſed of three Parts, for it has three Pointals at top.

It grows in Thickets, Hedges, and ſhady Banks, and flowers in Summer.

This Plant is called *Androsæmum* from *αἷμα* Blood, and *ανδρῶς* a Man; for this Plant, ſays *Dioſcorides*, being bruifed or ſqueezed by the Fingers, yields a Juice of the Colour of Blood. We call it *Tutſan* in *Engliſh* from the *French* *Toute-Saine*, or the *Italian* *Tutſan*; and ſome call it *Park-Leaves* becauſe it is ſo familiar to Parks and Woods, that it ſeldom grows any where elſe.

Tutſan is moderately hot and dry; and yet the Seed has an abſterſive Quality, whereby it purges cholerick Humours, in the ſame Manner as *St. Peter's-wort* does; for therein and in all other Reſpects it produces the ſame Effects, both to eaſe the Sciatica and Gout, and to heal Burnings by Fire. It likewiſe ſtops the bleeding of Wounds, if either the green Herb bruifed, or the Powder of the dry Herb be applied to them. It is, and has formerly in all Ages been accounted among the Country-People, a ſovereign Herb to heal any Wound or Sore either outwardly or inwardly. And therefore it always was one of their ſingular good Herbs of which they made Wound Drinks or Lotions, Balms, Oils, or Ointments, for any Sort of green Wound, or old Ulcer or Sore; in all which the continual Experience of many Ages has confirmed the Uſe of it to be admirable; tho' it is not ſo much in requeſt now as it was in former Times, when Surgeons and Phyſicians did more addiſt themſelves to the Uſe of Herbs than they do now.

Lemery informs us, That it contains abundance of Oil, and a moderate Quantity of Salt and Phlegm. It is, ſays he, called *Tota ſana*, *Toute-saine*, or *All-heal*, becauſe it is reckoned proper for all Diſeaſes. It is aperitive, vulnerary, reſolutive, proper for the Stone, to drive out Worms, to reſiſt Venom, and to prevent Madneſs. It is uſed both outwardly and inwardly.

1840	1841	1842	1843	1844	1845	1846
						
						
						

Geum

Fig. 1.



Fig. 2.

Saxifraga. Saxifrage.



Fig. 3.

Salicaria. Willow wort.



S E C T. III.

Of Herbs with a Rose-Flower, whose Pointal turns to a Fruit that is generally bicapsular.

T A B L E CXXX. Fig. 1.

G E N U S I.

Geum.

G EUM is a Plant with a Rose-Flower A, consisting of many Leaves B, placed orbicularly: Out of whose Flower-cup C, rises the Pointal D, which is split into two Horns, and then turns to an oblong Fruit E F, somewhat resembling a Bucker, with two Stems, bicapsular G, and full of Seeds which are generally small H.

The Species of Geum are,

1. Geum rotundifolium, majus. Greater, round-leav'd Geum. *Sanicula montana, rotundifolia, major.* C. B. Pin. 243. *Sanicula Alpina, guttata.* J. B. 3. 707. *Garyophyllata, five Geum Alpinum, recentiorum, folio Hederae.* Lob. Icon. 613. *Sanicula montana 2da.* Clus. Hist. 607. Spotted Sanicle.

It has many Leaves almost exactly round, resembling the Leaves of golden Saxifrage, standing upon long Foot-stalks, cut in on the Edge into deep Jaggs; so that the least Leaves seem as if they were cut out into Fingers, fat, hairy, green above, and somewhat whitish underneath, and of an astringent Taste. Then it shoots up with Stalks a Foot high, and sometimes higher, which are green, hairy, and somewhat writhed, upon which stand Leaves resembling the former. The Tops of the Stalks are divided into several Wings, and upon each Branch stand three or four Flowers that smell like the Flowers of Haw-thorn, and consist of five small Leaves that are marked underneath with red Spots. Double Seed-vessels with ten Stamina possess the Middle of the Flower, which Vessels when ripe

contain very small black Seed. The Root is somewhat scaly on the upper Part, and thickish, being furnished with many whitish Fibres, and putting forth Shoots at the Sides.

It grows on the Helvetian Alps and on the Mountains of Fura and Saleva near Geneva: It grows also, according to the Testimony of Clusius, in shady Places on the Mountains of Stiria and Austria. It flowers in June, and earlier in Gardens.

2. Geum rotundifolium, minus. Smaller round-leav'd Geum. *Sanicula montana, rotundifolia, minor.* C. B. Pin. 243. *Sanicula montanae alterius Species secunda.* Clus. Hist. 308.

This Species is smaller than the former, and has a narrower Leaf, which is dented at the End, hairy, of an astringent Taste, and of a pale herby Colour. Out of the Middle of the Leavs rise naked Stalks three Inches high, which at Top are split into several little Branches which are loaded with little white Flowers like those of spotted Sanicle, but not marked with bloody Spots like them. To these succeed Heads divided in two as in the other, which contain small black Seed.

It grows in Snealben, &c. and flowers in June, but in Gardens it flowers in May.

3. Geum folio circinato, pistillo floris pallido. Geum with an exact round Leaf, and a pale Pointal. *Sanicula montana, crenata, umbilico pallido.* H. R. Par.

4. Geum folio circinato, acutè crenato, pistillo floris rubro. Geum with a circular and sharp-jagged Leaf, and a red Pointal.

The Root is fibrous, putting forth Shoots from the Sides, and produces many Leaves which are round, notched, smooth underneath, but very hairy above, and standing upon long hairy Foot-stalks. The Stalks are half a Foot high, naked, hairy, branched at Top,

on which grow white five-leav'd Flowers which are marked with blood-red Spots, with many white *Stamina* and blood-red Chives, as also a red Pointal. To these succeed the Seed-vessels and Seed, which are like those of the other Species. It grows on the *Pyrenean Mountains*.

5. *Geum folio subrotundo, majori, pistillo floris rubro.* *Geum* with a large roundish Leaf, and a red Pointal. *Sedum montanum, serratum, guttato flore.* Park. Theat. 738.

The Root of this Species is composed of several blackish Filaments, and spreads it self in the same Manner as the rest of its Genus, putting forth many Heads or Shoots composed of many Leaves which are not conglobated as in the greater *Ever-green* and dented *Sedum*, but spread out into a plain Surface like a *Rose*. When the Leaves are come to their full Growth, they are larger, broader and thinner than any of the other Species of *House-leek*, being furnished with broadish Foot-stalks an Inch long, and are smooth, of a rusty green Colour, but reddish underneath, especially at the little Veins and Nerves which appear there almost without Number, of an oblong round Figure, an Inch or an Inch and a half long, and scarce an Inch broad, being almost one half longer than they are, broad, notched about the Edges with thin-set Notches, so that the Teeth between the Notches are pretty broad and blunt. About the End of *May* shoot up from the Middle of the Leaves small reddish Stalks, begirt up to the Middle with small Leaves, where they begin to divide into Branches, on the Tops of which stand many Flowers which are composed of five small Leaves somewhat pointed, of a faint red Colour on the Inside, and beautifully marked with many blood-red Spots, with flesh-coloured *Stamina* that surround the greenish Head, which swelling after the Flower falls, becomes the Seed-vessel, split into two Horns at top, and containing small blackish Seed.

There are two Species or Varieties of this Plant, one with a larger and another with a smaller Flower.

It is very frequent in our Gardens, but we are not certain where it grows wild, tho' doubtless it is a Native of the Mountains,

6. *Geum folio subrotundo, minori, pistillo floris rubro.* *Geum* with a smaller roundish Leaf, and a red Pointal.

It bears many Leaves which are spread round into various Heads, and lie upon the Ground, being almost an Inch long, roundish, thick, smooth, shining, of a dark green Colour, but fainter underneath, tapering into a Foot-stalk half an Inch long, and near two Lines broad, with hairy Borders. The Stalks are nine Inches high, naked, hairy and branched, loaded with five-leav'd Flowers that are stained with golden and vermilion Grains or Corns. The *Stamina* are whitish, and the Chives purplish; a red, pyramidal, horned Pointal possesses the Middle, and turns to a Seed-vessel of the same Figure, but larger, divided into Cells, and full of very small blackish Seed. The Flower-cup is composed of five small green Leaves that turn downwards. It grows on the Mountains of *Biscay*.

7. *Geum folio subrotundo, minimo.* *Geum* with a very small roundish Leaf. *Cotyledon altera olim Matthioli.* J. B. 3. 684. This is *Cotyledon minor foliis rotundioribus, guttato flore.* Raii Hist. Plant. 1046.

The Plant, says Mr. Ray, which we would have to be understood by this Name was cultivated some Years in my Garden at *Cambridge*. It has even Leaves, which are almost round, standing upon an oblong and broadish Foot-stalk, nay, if my Memory does not fail me, they are broader than they are long, notched quite round the Edges, having large Teeth standing betwixt the Notches which are pretty sharp at the Point, smooth and almost shining, smaller and of a more pale green Colour than those of the Fifth Species here described, and not quite so thick-set.

The *Cotyledon altera olim Matthioli*, continues he, which we take to be the same Species with this, is thus described by *J. Bauhinus*:

All the Leaves it has are spread along upon the Ground, and are very numerous, adhering to broadish Foot-stalks an Inch long, from whence they begin to be dilated as from a Neck, so that at last they are round in Circumference, beautifully notched, half an Inch big, thickish, and without Wrinkles even when dry. There is but one slender Stalk which is seven or eight Digits high,

high, commonly naked, and rarely furnished with Leaves an Inch above the Root, divided into several Branches above, at the Tops of which are set small Flowers of a pale red Colour, bestrewed with many deep red Spots.

It is found on the Hills about *Como*, and on the Mountains of *Sirria*.

8. *Geum palustre*, minus, foliis oblongis, crenatis. Small marsh *Geum*, with oblong notched Leaves. *Sanicula Alpina aliquatenus affinis*. J. B. 3. 708. *Sanicula Mycelotis Alpina, floribus albicantibus, fere umbellatis*. Pluk. Phytog. Tab. 58.

It shoots down into the Earth with its Root (where it can make its way,) which is pretty thick in proportion to the Size of the Plant, and puts forth many long white Fibres. It spreads forth short green Leaves quite around, which are hairy like those of *Moose-ear*, dented with four or six great Teeth, ending in a sharp Point, an Inch or an Inch and a half long, and half an Inch broad towards the Point. Out of the Middle of the Leaves rise Stalks a Palm high and better, which are round, hairy and naked of Leaves quite up to the Place where they begin to spread Branches: On the Top they bear Flowers composed of five white sharp-pointed Leaves, which are marked with two yellow Spots near the Roots, and contain within them ten *Stamina*, which are tipped with little purple Chives. The Seed-vessel is thick, ending in two Horns at top, as in the other Species of this Genus, and containing small, round, reddish Seed.

It loves the moist Places of high Mountains, as also Brooks and watery Rocks, and Water Springs, like golden *Saxifrage*. It is to be met with on the Sides of *Snowdown*, *Carnedd-Llewellyn*, *Caderidris*, &c. by the Sides of running Brooks; as also on *Hard-knot* and *Wrenose Hills* in *Westmorland*.

9. *Geum palustre*, *Lafitanicum*, minus & ramosius. Small, branch'd, Portuguese, Marsh *Geum*.

10. *Geum angustifolium*, autumnale, flore luteo, guttato. Parrow-leav'd autumnal *Geum*, with a yellow spotted Leaf. *Saxifraga angustifolia, autumnalis, flore luteo, guttato, foliolis florum magis guttatis*. Breyn. Cent. I. 106.

This rare and beautiful Plant grows in the moist and mossy Meadows of *Prussia* and *Cassuben*, especially near the Castle of *Klein Krakaw*, where it flowers from *August* to the End of *Autumn*; but when planted in a wet Garden in a Place not much exposed to the Sun, it flowers somewhat earlier, to wit, from *July* to the Middle of *September*.

From capillaceous Roots of a whitish Colour and an astringent Taste, come forth many red Shoots which are downy with Hair of a rusty Colour, and often creep along whole Turfs; around which grow narrow fleshy Leaves with very fine Nerves running along them, which Leaves are of a black-green Colour, and somewhat stiff, hairy about the Edges, pretty much resembling the Leaves of *Polygala* and *Nardus Celtica*; some of which beginning to dry in *Autumn*, put on a dull or yellow instead of their green Colour, like to *Nardus Celtica*. Among the Shoots or Sprays come forth little Stalks nine Inches long, generally spreading upon the Surface of the Earth, slender, round and greenish, somewhat reddish on the lower Part, and on the upper Part a little hairy with a soft, rusty or pale Down; which are clothed with somewhat smaller Leaves placed in a confused and irregular Order, and thick-set about the Root, but more thin set on the upper Part of the Stalk. The Tops of the Stalks, which end in two, three, four, or more Branches, bear very beautiful Flowers like those of white *Saxifrage*, but dyed of a yellow Colour, consisting of five nervous Leaves that have two Appendages at their Nails or Roots, in the same Manner as the *Gentiana duodecima seu punctata* Clus. on which one cannot behold, without a vast Pleasure, how finely and curiously ingenious Nature has strewed innumerable Spots of a fine deep saffron Colour, and these from the Middle to the Navel; from whence comes up a greenish forked Husk, divided into two Cells like the *Saxifrages*, amongst ten *Stamina* that are tipped with saffron Chives; which swells more and more after the Flower decays, and being come to its full Maturity is split into Horns, and sheds small reddish shining Seed. The Flowers as well as the Leaves, but especially the Stalks, have a bitterish and astringent Taste.

This Plant has several Varieties ; for some Flowers have Leaves with more blunt Points, and others with sharper Points : Besides there are of them found with larger and smaller Leaves, with fainter and darker green Leaves.

11. *Geum Creticum*, folio circinato, villoso, flore magno, albo. Candy Geum, with a round hairy Leaf, and a large white Flower.

12. *Geum orientale*, rotundifolium, supinum, flore aureo. Low, round-leav'd, oriental Geum, with a golden Flower.

13. *Geum orientale*, Cymbalariae folio molli & glabro, flore magno, albo. Oriental Geum, with a soft and smooth Ivywort or Goudelo Leaf, and a large white Flower.

I have nothing more to say of this Genus, but that it contains abundance of essential Oil and Salt ; and that is is detesive, vulnerary and consolidating.

TABLE CXXX. Fig. 2.

GENUS. II.

Saxifraga, Saxifrage.

Saxifrage is a Plant with a Rose-Flower A B, consisting of many Leaves placed orbicularly C : Out of whose multifidous Flower-cup D, rises the Pointal E, which commonly ends in two Horns F, and afterwards turns together with the Flower-cup into a roundish Fruit G, which has likewise two Horns, and two Cells H, and is full of Seeds I, which are generally small.

The Species of *Saxifrage* are,

1. *Saxifraga rotundifolia*, alba. C. B. Pin. 309. White round-leav'd Saxifrage. *Saxifraga alba*, radice granulosa. J. B. 3. 706. *Saxifraga alba*. Dod. Pempt. 316.

The Root of this Plant consists of many Bulbs or Kernels, about the Bigness of *Coriander* Seed, of a purple Colour, and bitter, with small Fibres warped through one another, and other Fibres besides these, which are larger and thicker ; sometimes it sends up but one Stalk, at other Times three, five,

and more, which are round, hairy, of a purple Colour, and divided into Branches ; on which stand several white Flowers which do not all blow at the same Time, consisting of five roundish Leaves, not split in two as in *Chickweed*, little yellow *Stamina*, and a green Pointal, and have no discernible Smell. The Flowers are inclosed by five small greenish Leaves, with a purple Border, which are hairy and somewhat viscous, as are also the Leaves with the Stalk in some measure. The Leaves are round, crested, fat, and somewhat resembling the Leaves of *Ground-Ivy*, upon hairy Foot-stalks a Palm long or shorter : But you will see some of those which are set on the Stalk not cut in the least but intire, shaped like a Launce, and of a bay Colour at the Point, and others of them fringed, but not by far so round a Figure. The Seed-vessel has two Horns at top, like a sort of *Houfe-leek*.

It flowers about the End of *April* and Beginning of *May* on the Banks of Hedges, in Pastures and dry Meadows.

2. *Saxifraga ad folia bulbos gerens*. C. B. Pin. 309. Saxifrage bearing Kernels at the Leaves. *Saxifraga bulbosa*, altera, *bulbifera*, *montana*. Col. Part. 1. 317. This is the *Saxifraga alba altera bulbifera*. Park.

The Root of this Plant has not Kernels growing at it but as it were little scaly Bulbs, propagating it self like the *Lilly*, with Knobs twice as big as those of the former, which are reddish without and whitish within, of an astringent Taste at first, but afterwards bitter and disagreeable, with a few small Fibres at the Bottom which take fast hold of the Ground. This Species has also smaller and rounder Leaves which are hairy, with shorter purplish Foot-stalks, divided quite around into round Notches, viscous to the Touch like Gum, as is the Stalk, the Flower-cup, and the whole Plant. It puts forth a thicker Stalk which is a little hairy, purplish, on which are set many Leaves alternately, without a Foot stalk, crested about the Edges, divided or cut into sharp Notches like the Leaves of *Eyebright*, in the Bosoms of which rise little Bulbs by which it propagates it self, these supplying the Place of Seed, for they spring up sooner, and come forth not only in the Bosoms of the Leaves,

but

but likewise on the Foot-stalks of the Flowers, and by the Flowers themselves, which coming forth on the Top of the Stalk like a Bunch of Ivy Berries, and being branched, and sitting upon Foot-stalks, do in the Months of April and May gape into five little white Leaves, having hairy Flower cups like a Pomegranate Flower, or the Flower of Henbane, divided also into five Borders, in which are the two-horned Seed-vessels (surrounded with several yellowish Stamina) which split or gape at the Horns when ripe, and shed abundance of superfluous and very small Seed like Sand.

3. *Saxifraga verna*, annua, humilior. Low, vernal, annual Saxifrage. *Sedum tridactylites tetorum*. C. B. Pin. 285. *Tridactylites tetorum*, flore albo. J. B. 3. 762. *Paronychia alera*. Dod. Pempt. 112. This is the *Paronychia rutaceo folio*. Ger. and *Paronychia foliis incisis*. Park. Rue-Whitlow-grass.

It draws its Nourishment from a small, single, scurulous Root; and rises commonly with one round, small, infirm, branched, and reddish Stalk, about a Palm high, or a little lower or higher according to the Nature of the Soil where it grows. The Leaves that first come forth are oblong and single, but the others, which are set on the Stalk without a Foot-stalk, are fat or succulent, pale and hairy, glutinous to the Touch, cut into three Segments or Fingers, and sometimes into five: But those again which are placed at the Top of the Stalk are single and undivided and placed alternately. On the Tops of the Stalks and Branches stand small white Flowers on long Foot-stalks, consisting of five roundish Leaves, not at all cut, in oblong hairy Flower-cups cut into five Segments. The Seed-vessel, which is divided into two Horns at top, and swells into a round Belly below the Flower-cup, resembles the Fruit of *Haw-thorn*. The whole Plant is viscous to the Touch.

It commonly grows plentifully on Walls and Houses, in rugged and dry Places. It flowers in the Month of May, and soon produces ripe Seed; after which it withers from the very Root.

4. *Saxifraga muscosa*, trifido folio. Mossy Saxifrage, with a Leaf cut into three Segments. *Sedum Alpinum trifido folio*. C. B. Pin. 284. *Sedis affinis trifulca*, Alpina,

flore albo. J. B. 3. 696. *Sedum minus* xlii Clus. Hist. lxii. This is the *Sedum Alpinum laciniatis Ajugæ foliis*. Park.

It wanders upon the Surface of the Ground, and takes up much Space with small dusky Stalks lying flat upon the Ground, which put forth Leaves an Inch long, somewhat hairy, and ending in a three-furrowed broadish Trident, smaller than that of *Ground-pine*: Others of them which are folded up like an oblong glumous Bottle, and are feathered with Down, do exactly resemble a Grain of Oats, being guarded on all Sides with these three-furrowed Leaves. Some of the Stalks, which are round and a Palm long, stretch out above into several Foot-stalks (at which is set a very small undivided Leaf) each of which bears a white striped Flower about the Size of a *Spurrey* Flower. To the Flower succeeds the Seed-vessel, which is small and full of Seed, and is surrounded by the Flower-cup which is cut into Jaggs.

It grows in great plenty on the Mountains of *Wales*, as *Snowdon*; and on the Mountains in *Yorkshire*, as *Ingleborough*; and Mr. Ray found it on Mount *Jura* and in other Parts beyond-sea.

5. *Saxifraga tridactylites*, Alpina, pallide lutea. Mountain Saxifrage, of a pale yellow Colour, with a Leaf cut into three Segments. *Sedum tridactylites*, Alpina, pallide luteum. C. B. Pin. 284.

This Species has a small capillaceous Root, and a Stalk that is a Foot high, of a purplish Colour, somewhat hairy, divided into several small and tender Branches. The Leaves are thin, soft and broad, divided first into three deep Jaggs, and these again cut into smaller Segments. The Flowers are of a pale yellow Colour, consisting of five Leaves, and furnished with as many Stamina; to which succeed roundish and longish Seed-vessels containing very small Seed.

Caspar Bauhinus found this Plant in the wet and marshy Places of the *Pyrenean* Mountains.

6. *Saxifraga tridactylites*, Alpina, minor & villosa. A smaller hairy mountain Saxifrage, with Leaves cut into three Segments. *Sedum tridactylites*, Alpina, minus. C. B. Pin. 284. Prodr. 131. This is the *Sedum Monspeliense* & *Pyreneum laciniatum*. Park.

At a small creeping black Root come forth several small green Leaves, that are gathered into Heads, deeply cut above into Jaggs, commonly three, but rarely more; out of the Middle of which rises one or two Stalks, sometimes divided, begirt with a few small Leaves, three or four Inches high, on which stand three or four small pale Flowers consisting of five Leaves, furnished with many *Stamina*, and each resting upon its own Foot-stalk. To these succeed little Flower-cups containing small Seed.

7. *Saxifraga alba*, *Petræa Pona* in fol. 337. *Tridactylites Alpina*. J. B. 3. 762. **White Rock Saxifrage.** *Sedum tridactylites*, *Alpinum, majus, album*. C. B. Pin. 284.

It has a small capillaceous Root; a purplish Stalk a Palm long, somewhat hairy, and divided into several slender and brittle Branches. The Leaves at the Root are thin soft and broad (small on the Branches) divided first into three Jaggs and then into others. The Flowers on the Tops of the Branches are white, five-leav'd, and furnished with as many *Stamina*; to which succeed roundish and longish Heads which contain very small Seed.

8. *Saxifraga Sedi folio, flore albo, multiflora*. **Many-flower'd Saxifrage, with a House-leek Leaf, and a white Flower.** *Sedum serratum, flore albo, multiflorum*. A. R. Par. 113.

9. *Saxifraga Sedi folio, Pyrenaica, serrata*. **Pyrenean jagged Saxifrage, with a House-leek Leaf.** *Sedum Pyrenaicum, serratum, minus, flore guttato*. H. R. Par.

10. *Saxifraga Sedi folio, angustiore, serrato*. **Saxifrage with a narrow dented House-leek Leaf.** *Cotyledon media, foliis oblongis, serratis*. C. B. Pin. 285. *Sedum serratum*. J. B. 3. 689. *Umbilicus veneris minor primus & secundus*. Tabern. Icon. 847. *Aizcum serratum*. Cord. Hist. 92.

This Plant has a slender black Root which propagates it self far and wide by its long Fibres. The Leaves commonly spread upon the Ground, and rarely rise above it, resembling those of *House-leek*, being far and oblong, with a round End; some of which also end in a Point and are an Inch or two long, of a grey Colour, most nicely dented round the Edges with curious stiff Teeth, which are whiter than the rest of the Leaf,

and of a very astringent Taste: Out of the Middle of which rises a leafy Stalk one or two Palms high, and divided into several Wings or Branches. The Flowers are white, and consist of five Leaves that are not sharp-pointed but roundish, and marked with red Spots about the Navel; the Navel it self being yellow and tipped with saffron Chives.

Mr. Ray observed this Plant on the Mountains of *Tirol* and *Switzerland*, and on *Salva* and *Jura* near *Geneva*.

11. *Saxifraga foliis subrotundis, serratis*. **Saxifrage with roundish jagged Leaves.** *Cotyledon minor, foliis subrotundis, serratis*. C. B. Pin. 285. Prodr. 133. J. B. 3. 690.

This Species has a small, fibrous, dusky Root; around which grow many Leaves not half a Nail's Breadth; not like long Tenons as in the former, but roundish, notched round the Edges, thickish, whitish, and somewhat astringent; out of the Middle of which rises a Stalk half a Palm and sometimes a Palm high, somewhat rough, and begirt with a few very small Leaves: On the Tops of which are Foot-stalks sustaining Flowers, which are much smaller than in the first Species, five-leav'd with Chives in the Middle; which Flowers are white, sometimes bestrewed with red Spots, and sometimes striped with three Lines running along the Leaves of the Flowers, so that the Flowers appear of a pale purplish Colour. To these succeed small Heads containing black Seed.

It sticks to the Rocks on the Mountains of *Switzerland*; and flowers in *June* and *July*.

12. *Saxifraga Alpina, Sedi foliis crenatis, asperis*. **Mountain Saxifrage, with rough notched House-leek Leaves.** *Sedum Alpinum, foliis crenatis, asperis*. C. B. Pin. 284. Prodr. 132. *Sedum Alpinum, bispidum, ferè spinosum, flore albido*. J. B. 3. 695.

This Plant puts forth many slender Stalks nine Inches high, clothed with Leaves placed alternately which are half an Inch long, narrow, pointed, of a pale green Colour, rough with Prickles about the Edges, many of which adorn that Part of the Stalk that is next the Root. The Branches into which the Stalks are divided at top, bear a Flower at top each of a paleish Colour, as big as that of yellow Mountain *House-leek*, with many Chives in the Middle. To each

of these succeeds a Head like that of *Flax*, but smaller, which opens into two Parts at top, at the shaking of which falls out a great deal of very small black Seed like Dust.

13. *Saxifraga Alpina*, *Ericoides*, flore purpurascente. Mountain Saxifrage, resembling Heath, with a purplish Flower. *Sedum montanum Ericoides*. C. B. Prodr. 132.

This Species has Branches a Palm long, which are tough, flexible, thick-set with Joints, and spread upon the Ground; which are clothed with short thickish Leaves, shaped like the Leaves of *Heath*, and divided into other Stalks two or three Inches long, and sometimes even shorter; and these again bear many Leaves that almost lean upon one another, and rounder than the former Leaves. On the Top of each sits a Flower which is pretty big and purplish in a Flower-cup that is as it were scaley, and consists of four and sometimes five Leaves, and several *Stamina* in the Middle.

14. *Saxifraga Alpina*, *Ericoides*, flore caeruleo. Mountain Heath-like Saxifrage, with a blue Flower. *Sedum Alpinum, Ericoides, caeruleum*. C. B. Prodr. 132. J. B. 3. 694.

It hangs down from craggy Hills and Rocks, having an oblong, fibrous, reddish Root; and several Branches begirt with thick-set Leaves, that are shorter than in the former, thick and ash-coloured like the *Samunda secunda* Clus. and the *Erica Alexandrina*. On each Stalk, which are an Inch long and foliaceous, stands a large, blue, four-leav'd Flower, furnished with several little short *Stamina*.

It grows in great Plenty on the Rocks upon the North Side of *Ingleborough*; and flowers early in the *Spring*, viz. in the Month of *March*. C. *Baubinus* found it on *Monte Braulio*, and on the Top of *Gothard, &c.* It very much refreshes and delights the Eye with the Largeness and beautiful blue Colour of its Flowers: It is really a very rare Plant whose early Flower even prevents the *Spring* it self, on those cold Tops of Mountains and wet Rocks.

15. *Saxifraga montana*, pyramidata, folio longiore. Mountain, pyramidal Saxifrage, with a long Leaf.

16. *Saxifraga Pyrenaica*, lutea, minima, Sedi foliis densissime congestis. Very small,

yellow, Pyrenean Saxifrage, with House-leek Leaves gathered very close.

17. *Saxifraga Pyrenaica*, alba, minima, foliis densissime congestis. The smallest white Pyrenean Saxifrage, with very thick-set Leaves.

18. *Saxifraga Alpina*, minima, foliis caesis, deorsum incurvis. The smallest mountain Saxifrage, with grey Leaves that bend or bow downwards.

19. *Saxifraga Alpina*, lutea, Sedi folio. Yellow mountain Saxifrage, with a House-leek Leaf.

20. *Saxifraga Pyrenaica*, tridactylites, latifolia. Pyrenean Saxifrage, with broad Leaves cut into three Segments like Fingers.

21. *Saxifraga Cantabrica*, latifolia, tridactylites, rigidior. Stiff Biscayan Saxifrage, with broad Leaves cut into three Segments like Fingers.

22. *Saxifraga tridactylites*, Pyrenaica, pallide lutea, minima. The smallest pale yellow Pyrenean Saxifrage, with Leaves cut into three Segments.

23. *Saxifraga Pyrenaica*, foliis partim integris, partim trifidis. Pyrenean Saxifrage, with Leaves partly intire and partly cut into three Segments.

24. *Saxifraga Pyrenaica*, minima, lutea, Musco similis. The smallest yellow Pyrenean Saxifrage, resembling Moss.

25. *Saxifraga Cretica*, annua, minima, Hederaceo folio. The smallest annual, Ivy-leav'd, Candy Saxifrage.

This Genus is called *Saxifraga* from *Saxum* and *frango*, either because it breaks forth from the Clefts of Rocks, or because the Roots penetrate into Stones and Rocks, or because it breaks or dissolves the Stone in the Bladder and Kidneys.

There are many Plants that come under this Denomination besides those mentioned under this Head, and most if not all of those mentioned under this Genus have much the same Vertues; tho' the first Species is that which is principally used in the Shops.

This then warms and dries very powerfully; is diuretical and aperitive. It is chiefly used to break and expel the Stone and Sand in the Kidneys and Bladder, and to attenuate the Mucilage that gathers there. It is used also in the Obstructions of the *Menstrua*; and

and is employed externally in diuretical Baths. A distilled Water is drawn from the whole Plant gathered in the Month of May. *Schroed.*

The fixed Salt of this Plant reduced to Ashes affords a nitrous Spirit, which is very good for the Stone. *D. Palmer.*

This Plant passes for a great Diuretick; and the Infusion of its Roots in White Wine, or the Decoction of the same Parts are used for this Purpose. *Fuchsius* affirms, That it provokes the Terms, and that it frees the Lungs from that thick Lymph which hinders their ordinary Functions. *Tournefort.*

This Plant contains abundance of essential Salt and Oil: It is very opening, proper for the Stone, for Obstructions, and to provoke Urine and Womens Terms, if it be taken in Decoction. *Lemery.*

The fifth Species has been celebrated by the Honourable Mr. Boyle in his Treatise concerning the Usefulness of Natural Philosophy, p. 203. who says, That the Herb infused in Small Beer, and drank for some Days, cures the King's-Evil without any sensible Evacuation, by consuming the Humour, mitigating the Pain, dissolving the Tumours, and drying up the Ulcers.

TABLE CXXX. Fig. 3.

GENUS III.

Salicaria, Willow-wort.

Willow-wort is a Plant with a Rose-Flower A, consisting of many Leaves B, that grow in a Circle from the Incisures of the flat Flower-cup C: Out of the Bottom of which Flower-cup rises the Pointal D, which afterwards turns to a Fruit E, or oval Husk, consisting of two Cells F, and generally full of small Seeds H, which adhere to the Placenta G, and are commonly wrapped up in the Flower-cup I.

The Species of Willow-wort are,

1. *Salicaria vulgaris, purpurea, foliis oblongis.* Common purple Willow-wort, with oblong Leaves. *Lysimachia spicata, purpurea, forte Plinii.* C. B. Pin. 246. *Lysimachia purpurea, quibusdam spicata.* J. B. 2.

902. *Pseudolysimachium purpureum alterum.* Dod. Pempt. 86. Purple spiked Willow-herb, or Loose-strife.

It spreads several white ligneous Roots as long as one's Finger. The Stalks in a kindly Soil rise to the Tallness of a Man, being stiff, divided into Branches, cornered and reddish. The Leaves grow commonly in Couples at certain Distances, and sometimes in Threes, resembling the Leaves of Willow, narrower, and of a deeper green Colour than those of yellow Loose-strife, sharp-pointed, and of a dry Taste. The Flowers grow in Spikes nine Inches long, and sometimes not so long, which are composed of several Wherles: They strike the Eye with a gay bright blue Colour; each of which consist of six Leaves, with Stamina of the same Colour possessing the Middle, resting in oblong purple striped Flower-cups, which are divided into twelve Segments.

It is chiefly to be remarked in this Flower, That the Leaves do not come forth from the Bottom of the Flower-cup, about the Basis of the Seed-vessel, which is almost quite hid in it, but from the uppermost Border of the Flower-cup, as will immediately appear to any one that plucks them when they begin to wither.

It grows in great abundance in Marshes, and on the Brinks of Rivers; and flowers in Summer.

2. *Salicaria trifolia, caule hexagono.* Tree-soil Willow-wort, with a six-corner'd Stalk. *Lysimachia purpurea, trifolia, caule hexagono.* Spig. Itag. 49.

3. *Salicaria purpurea, foliis subrotundis.* Purple Willow-wort, with roundish Leaves. *Lysimachia spicata, lanuginosa, folio subrotundo, flore purpureo.* H. R. Par. *Lysimachia spicata, purpurea, folio subrotundo, Ocimi facie.* Munt. Hist. 744.

4. *Salicaria Lusitanica, angustiore folio.* Portuguese Willow-wort, with a narrow Leaf. *Lysimachia purpurea, altera, Lusitanica.* V. Lufit.

5. *Salicaria Hyssopi folio latiore.* Broad Hyssop-leav'd Willow-wort. *Hyssopifolia major, latioribus foliis.* C. B. Pin. 218. *Hyssopifolia aquatica.* J. B. 3. 729.

This has many green, channelled Stalks nine Inches long and better, that are clothed with Leaves placed alternately, resembling the

the Leaves of *Hyssop*, but sometimes shorter than them, of short Continuance, with one Nerve or Rib running along the Middle lengthwise, and of no manifest Taste : Out of whose Bosom, from the Root to the Top, rises one or two longish blue Flowers, composed of five striped Leaves, standing in a green Flower-cup adhering to the Stalk. The Flowers are succeeded by the same Number of long round Pods infolded in a greenish Membrane, which being removed, a dusky Coat properly constituting the Flower-cup contains abundance of small Seed. The Root is short and fibrous.

It is frequently found both in *England* and in Foreign Parts in watery Places, and where the Water has stagnated during the *Winter*.

6. *Salicaria Hyssopi folio angustiore*. *Narrow Hyssop-leav'd Willow-wort*. *Hyssopifolia minor, angustioribus foliis*. C. B. Pin. 218.

This Species has a single, ligneous, twisted Root, shooting up a Stalk a Palm high, and sometimes above nine Inches high, divided into Branches; along which are stretched many Leaves turning upwards, and resembling the Leaves of stinking *Ground-pine*; out of the Bosoms of which, from the Bottom to the Top, rise very small crested reddish Pods, resembling those of great *Hyssop*, full of small Seed, which is of a whitish yellow Colour. The Flower is so very small, that it can hardly be well discerned.

Cherler gathered this Plant in the Vineyards upon the Sea-shore, and on the Borders of the Vineyards near *Grammont* in the Fields about *Montpelier*.

Mr. *Ray* found two Species of this Plant growing together in the Island of *Sicily* near *Messina*; the one three times higher than the other, and larger in all its Parts, but alike in every other Respect. But he says he never observed any other but the smaller Species in *England*.

7. *Salicaria Hyssopi folio, floribus albis*. *Hyssop-leav'd Willow-wort, with white Flowers*. *Hyssopifolia floribus albis*. C. B. Pin. 218.

8. *Salicaria Hispanica, Hyssopi folio, floribus oblongis, saturate caeruleis*. *Spanish Hyssop-leav'd Willow-wort, with oblong Flowers of a deep blue Colour*. *Hyssopi-*

folia Hispanica, floribus oblongis, saturatoris caerulei coloris. C. B. Pin. 218.

9. *Salicaria minima, tenuifolia*. The smallest narrow-leav'd *Willow-wort*. *Hyssopifolia minor, vel potius Thymifolia, maritima*. J. B. 3. 792.

10. *Salicaria minima, Lusitanica, Nummularia folio*. The smallest *Portuguese Willow-wort, with a Penny-wort Leaf*.

11. *Salicaria Cretica, Punicæ folio*. *Causdy Willow-wort, with a Punica Leaf*.

12. *Salicaria orientalis, Salicis folio acutissimo & glabro*. *Oriental Willow-wort, with a very sharp and smooth Willow Leaf*.

This Genus is called *Salicaria* from its growing among *Willows*.

Of the First Species *Parkinson* saith, That the distilled Water is a present Remedy for Hurts and Blows on the Eyes, as also for Blindness, provided the crystalline Humour or Sight it self be not perished or hurt : Which Experiment, he says, was found true upon a Boy whose Eye by chance was pricked, and restord hereby. He that performed this Cure, and the like upon several Persons, would not declare the Secret to any; and therefore the Physicians and Surgeons that undertook to cure Another hurt in the same Manner, and refusing this Water, failed of their Cure, and left him blind whom they dealt with. The same Author acquaints us, That it is of good Use to clear the Eyes from any Dust, or any other Thing got into them, and that it keeps the Sight from much Danger. It is also available against Wounds and Thrusts, if it be made up into an Ointment with *May Butter, Wax, and Sugar*, in this Manner :

Take to every Ounce of the Water two Drams of *May Butter* without Salt, and Sugar and Wax of each as much also; let them boil gently together; let the Tents be dipped into the Liquor that remains, after it is cold, and put into the Wounds, and the Part covered with a Linnen Cloth doubled and anointed with the Ointment : This, says our Author, was proved on a Captain who was shot in two Places with Bullets, the one through his Breast, the other through his Thigh, who was perfectly cured of both Wounds without any Scar, only by

B b b b

making

making the Application aforesaid, when he could not be helped by other Remedies applied.

It likewise cleanses, and heals all foul Ulcers and Sores wheresoever, and stayeth their Inflammations, by washing them with the Water, and laying on them a green Leaf or two in *Summer*, and dry Leaves in *Winter*.

This Water gargled warm in the Mouth, and sometimes also drunk, cures the Quinsy and King's-Evil in the Throat. The same Water applied warm takes away all Spots, Marks or Scars in the Skin, which are caused by the Measles, Small Pox, or the like. Or lastly, this Water drunk when one is a-dry, or on a Journey not having any Drink, will presently quench Thirst.

Lemery says, That this Plant is cleansing, astringent, vulnerary, cooling, proper for Inflammations, and for strengthening of the Eyes.

TABLE CXXXI.

GENUS IV.

Glaucium.

Glaucium is a Plant with a Rose-Flower A, generally consisting of four Leaves B, placed orbicularly: Out of whose two-leav'd Flower-cup C, rises the Pointal D, which afterwards turns to a long, round Pod E, consisting only of one Cell, with the Valves F H, adhering to the intermediate Partition H, and full of Seeds I, which are commonly roundish. There occur likewise Species of this Plant with Fruit having but one Cell, but which gapes or opens in four Parts.

The Species of Glaucium are,

1. Glaucium flore luteo. Yellow-flower'd Glaucium. *Papaver corniculatum, luteum*. J. B. 3. 398. *Papaver corniculatum, majus*. Dod. Pempt. 448. Yellow horned Poppy.

The Root is about the Thickness of one's Finger, long and blackish, and full of yellow Juice, as is the whole Plant, which is nauseous and bitter. The Leaves are thick and hairy, a Span long, and four Fingers broad,

like the Leaves of *Montpelier Mullein*, dented round the Edges, and deeply cut and notched, and as it were curled, grey and far. They lie upon the Ground, and are Proof against the *Winter Cold*; and such of them as grow at the Root have thick Foot-stalks, especially the first Year when there is no Stalk, which it produces first the following Year, strong, firm, smooth and jointed, and divided into many Branches, Leaves coming forth from the Joints, smaller than the former Leaves, and less cut the nearer they are to the Top, like some of the *Ivy* Leaves. Out of the Bosom of each break forth two Buds, bearing one individual Flower and Fruit: One of them is again divided into Two in the same Manner at the Bosom of the other Leaf; and this Division holds in this Plant to the Tops of the Branches. Wherefore the smaller and undivided Buds or Foot-stalks bear each a single Flower of a yellow Colour, as big as the Flowers of *Garden Poppy*, consisting of four broad, and very thin Leaves: In the Middle of which, numerous *Stamina* of the same Colour form a Head, from whence breaks forth a crooked, slender, horned Pod, rough to the Touch, and a Palm and a half long; equal to the Pod of *Fenugreek*, but not ending in so sharp a Point, and blackish at top, having a Head that bears some Resemblance to a feathered Arrow; but the Pod, which is blunt at the Point, has a deep Line cut at each Side running lengthwise, which are its Joinings, and which open when it is ripe. Within are contained Seeds of a very black Colour, like *Poppy* Seeds, in a double Row; for the Pods have a Partition that runs longwise.

It grows wild in the Sands on the Seashore, and no where else here in *England*. It flowers and produces perfect Fruit in *Summer*.

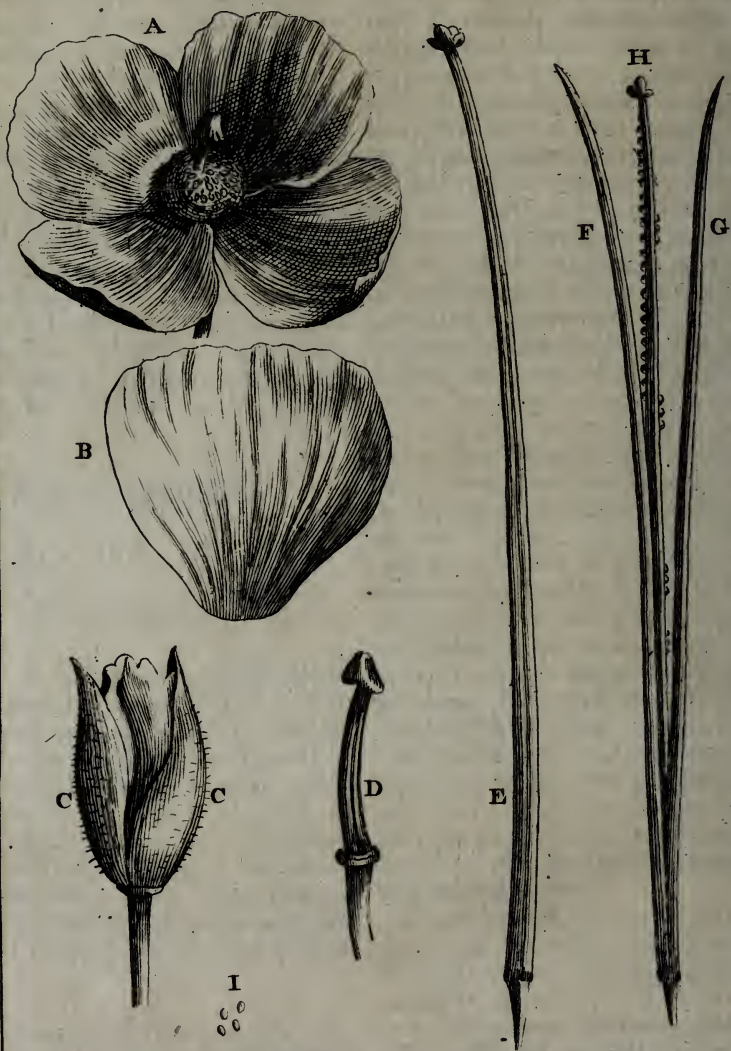
2. Glaucium hirsutum, flore Phœniceo. Hairy Glaucium, with a purple coloured Flower. *Papaver corniculatum, Phœniceum, folio hirsuto*. J. B. 3. 399. *Papaver corniculatum, phœniceum, hirsutum*. C. B. Pin. 171. *Papaver corniculatum, rubrum*. Dod. Pempt. 449.

The Leaf is jagged and deeply cut in like *Rocket* Leaves, smaller than the former, thinner and not so hoary, but hairy. The Stalks

Plumieria



Glaucium.



are sometimes as long as the former Kind, but more tender and slender, and lie along upon the Ground. The Flowers are smaller, sometimes of a bright red Colour, and these are the first which the Plant produces when it begins to flower, and sometimes of a more faint and somewhat pale Colour, tho' the middle Leaves incline to a purple, such as is seen in the Flower called *Adonis*, viz. after *Midsummer*, when the Plant begins to decay and lose that Roughness upon the Stalk and Leaves: For otherwise, if you look upon the Plant in its Vigour when it begins to bear Flowers, and afterwards behold it at its full Growth and Maturity, you will be ready to imagine that they were different Plants, by reason of the Hairiness or Smoothness of the Stalk, Branches and Leaves. To the Flowers succeed very long Horns, divided into three Cells, upon which stand a sort of broadish Copes or Heads, in which are contained black rugged Seeds, larger than *Poppy* Seeds. The Root is long, white, and pretty thick, but is not perennial, but generally perishes in the *Winter* after it has produced Seed.

It grows in the Fields about *Salamanca*, by the Highways and on the Borders of the Fields, where it flowers in *June*, and seeds in *July*. It likewise grows wild about *Vienna*, and all over *Moravia* and *Bohemia*, in the Fields, &c. This Plant does not abound with yellow Juice.

3. *Glaucium glabrum*, flore *Phoeniceo*. Smooth *Glaucium*, with a purple Flower. *Papaver corniculatum*, *phoeniceum*, *glabrum*. C. B. Pin. 171. *Papaver corniculatum*, *phoeniceum*, alterum. Lob. Icon. 27.

4. *Glaucium* flore *violaceo*. *Glaucium* with a violet-coloured Flower. *Papaver corniculatum*, *violaceum*. C. B. Pin. 172. J. B. 3. 399. Dod. Pempr. 449.

The Leaves of this Species are much smaller, tenderer, very finely cut, and not whitish but green. The Stalks are tender

and somewhat hairy. The Flower is not smaller than the former, of a blue purple Colour, and much resembles that of black violet, very fleeting; and blown away with the least Breath of Wind. To this succeed Horns only a Finger's Length, and commonly shorter, small, hard, and furnished with stiff Hair; in which is contained very small Seed, of a blackish ash-colour. The Root is slender and useles, and continues not above a Year.

Clusius found this in many Parts of *Spain*, but no where except among the Corn: It flowers in the Month of *May*. Mr. *Ray* observed it growing wild among the Corn, betwixt *Swastam* and *Burmel* in *Cambridgeshire*.

This Genus, which is the *Papaver corniculatum*, is called *Glaucium* from *Pliny*, l. 20. c. 19. and therefore since it could not be brought either to *Poppy* or *Celandine*, by reason of the Form of its Fruit, it was thought proper to give it the Name of *Glaucium*, which is derived from the Greek Word *γλαυκός* *castus*, *Sea-green*, because the Leaves are of a sea-green Colour.

The First Species is most commonly used in Physick, tho' the others have much the same Vertues. *Dioscorides* assures us, That this Plant is diuretick; and *Galen* affirms, That it is vulnerary and detersive. But that Author cautions us not to use it in any other Case but to eat and consume the proud Flesh of Ulcers. However, in *Portugal* it is prescribed to be drunk by those who are subject to the Stone, in a Glas of White Wine, in which half a Handful of the bruised Leaves of this Herb have been infused. The same Leaves bruised are used in *Provence* for Ulcers, and especially for Wounds and Sores in Horses.

Lemery informs us, That all the Species of it contain abundance of Oil and essential Salt: And that they are resolving, being applied externally.

S E C T. IV.

Of Herbs with a Rose-Flower, whose Pointal turns to a Fruit with many Cells.

TABLE CXXXII. Fig. 1.

GENUS I.

Hypericum, St. John's-wort.

ST. John's-wort is a Plant with a Rose-Flower A, consisting of many Leaves B, placed orbicularly: Out of whose many-leav'd Flower-cup C, rises the Pointal D, which afterwards turns to a Fruit E, that is generally three-corner'd and three-pointed F, three-cell'd G, and full of Seeds H, which are commonly small I. To these Marks must be added, That two Leaves grow over against one another at the Joints.

The Species of *St. John's-wort* are,

1. *Hypericum vulgare*. C. B. Pin. 279. Common *St. John's-wort*. *Hypericum vulgare sive Perforata caule rotundo, foliis glabris*. J. B. 3. 381. *Hypericum*. Dod. Pempt. 76.

From a ligneous Root divided into many Parts, and covered with box-coloured Bark, rise many stiff, ligneous, round, reddish Stalks, divided into many Branches, a Cubit and a half high or better. The Leaves are set on the Stalks in Couples opposite to one another, without Foot-stalks, like those of *Marjoram* or small *Centaury*, smooth, and furnished with Nerves running lengthwise, and seem to have innumerable Holes in them, when held against the Sun (for which Reason this Herb is also called *Perforata*) of a dry and astringent Taste, with a Mixture of bitter. From Joint to Joint, or from an under Pair of Leaves on both Sides to the Nerve of an upper Pair of Leaves, runs a Line raised upon the Stalk, or a sort of Angle. The Flowers stand in Clusters at the Tops of the Branches, being composed of five radiated Leaves, and fringed, with many Chives of

the same Colour, larger and more tightly than those of *Ascyrum*, supported by short or no Foot-stalks, and furnished with three Pointals. The Flower-cup consists of five narrow sharp Segments. Small Seed of a dark red Colour is contained in oblong Heads resembling a Grain of *Barley*, and composed of three Keels. Both the Flowers and the Heads yield a bloody Juice, if they are squeezed.

It grows in Thickets and Hedges.

2. *Hypericum vulgare, guttis sanguineis*. Bocc. Mus. Part. 2. 25. Tab. 11. Common *St. John's-wort*, with blood-red Spots.

3. *Hypericum Nummulariæ folio*. C. B. Pin. 279. *St. John's-wort* with a Penny-wort Leaf. *Androsæmum, supinum, saxatile, Nummulariæ folio, aversa parte rubente*. Bocc. Mus. Part. 2. 134. Tab. 91.

4. *Hypericum folio brevior*. C. B. Pin. 279. Short-leav'd *St. John's-wort*. *Hypericum Syriacum & Alexandrinum*. J. B. 3. 383. Lob. Icon. 398.

This Species bears Leaves four times less than our *European St. John's-wort*, which come forth at the Tops of Stalks a Cubit high, as close as they can stand as it were in Wherles; but the Flowers are yellow like ours. This short Description is given by *Lobel*, but there is no fuller, that I know of, given by any *Botanist*.

Mr. Ray tells us, He saw this Plant flowering in My Lord Charles Howard's Garden. *Parkinson* by mistake confounds it with the *Hypericum pulchrum* of *Tragus*.

5. *Hypericum crispum, triquetrum & cuspidato folio*. Bocc. Mus. Part. 2. Tab. 12. Curled *St. John's-wort*, with a three-corner'd and pointed Leaf. *Hypericum cespitosum, crispum, triquetrum & cuspidato folio, caulem ambiente, sive Hypericum frutescens, foliis crispis, mucronatis caulem ambientibus*. Ejusd. pag. 31.

6. *Hyper-*

Hypericum. S. John's-wort.

Fig. 1.



Ascyrum. S. Peter's-wort.

Fig. 2.





6. *Hypericum minus, erectum. C. B. Pin. 279. Small upright St. John's-wort. Hypericum pulchrum Tragi. J. B. 3. 383. Hypericum pulchrum. Trag. 74.*

This Species has several hard ligneous Roots covered with a reddish Bark, and white within. From thence rise Stalks nine Inches high and better, which are round and smooth, reddish on the lower part, and branched, cloathed with Leaves opposite to one another at Distances, which embrace the Stalk with their broad Bottom, having a sharp Point, so that they seem to be triangular, of a dark green Colour on the upper Side, and greyish underneath, smooth, smaller and firmer than in the common *St. John's-wort*. On the Tops of the Stalks and Branches are set a few yellow Flowers resembling those of the common Kind, supported by very short Foot-stalks, and placed in the same Manner at the Angles of the Divarications of the Stalk and Branches. The Pointal is likewise threefold, and the Seed-vessel alike, being composed of three Cells.

It grows in Thickets and Heaths, especially in sandy and gravelly Ground.

7. *Hypericum minus, supinum, vel supinum, glabrum. C. B. Pin. 279. Small trailing St. John's-wort. Hypericum supinum tertium, minimum. Clus. Hist. clxxxii.*

From a small yellow Root, which is sometimes single and sometimes branched, and furnished with a few small Fibres like Hairs, it sends up a great many slender, round and infirm Stalks, which lie upon the Ground, and are a Palm long and better, branched from the very Root, two Branches coming forth from the Wings of the opposite Leaves which are again divided into other Branches. But the middlemost Stalk is parted into two Branches, and each Branch again subdivided into two other Branches in order; and in the very Corners of the Divarications sit single Flowers on Foot-stalks half an Inch long or shorter, consisting of five Leaves, star-fashioned and yellow, not much unlike the Flowers of *Anagallis lutea*, the Leaves being broadish and ending in a Point, with many yellow Stamina in the Middle. The Flower-cup is five-leav'd, whose Leaves grow larger after the Flower falls. To the Flowers succeed Seed-vessels shaped like those of common *St. John's-wort*, and likewise divided into

three Cells. The small Leaves, which have the Shape and Colour of the former, are yet much smaller, equal to the Leaves of *Mother of Thyme*, smooth, not pierced with any Holes, nor marked with Spots. The tender Tops of this Plant yield a red Juice when bruised, but not so much as in the other Species.

It grows in sandy barren and uncultivated Pastures and Fields.

This little Plant is easily distinguished from all the other Species of *St. John's-wort* by its Smallness, the Multitude of its Stalks, which sometimes hide the Earth as it were in a thick Turf, by its thin-set Flowers, and by its feeble Stalks which lie upon the Ground.

8. *Hypericum supinum, tomentosum, majus vel Hispanicum. C. B. Pin. 279. The greater or Spanish trailing, stocky St. John's-wort. Hypericum supinum, tomentosum, Hispanicum. Clus. Hist. clxxxii.*

This Plant is furnished with many hairy Stalks trailing upon the Ground, with numerous and thick-set Leaves encompassing them, resembling those of common *St. John's-wort*, but all over stocky and hoary. Its little Flowers, which are yellow, but paler and smaller than in the common *St. John's-wort*; stretch along the Branches; to which succeed Heads or Seed-vessels like those of the common Kind. The Root is hard and ligneous; and even the Branches which are spread upon the Ground put forth Fibres which take Root in the Earth.

It grows in some Valleys not far from *Salamanca*, where *Clusius* found the flowering Plants spreading so wide, that they were as broad as the Circumference of a broad-brim'd Hat.

Clusius complains of *Lobel* for making the Plant which immediately follows to be the same with this *Spanish St. John's-wort*: tho' it must be confessed, that both the Descriptions and Figures of them agree; unless that this has more numerous and thick-set Leaves upon the Stalks, and the following more thin-set; which however is not considerable enough to make them different Species.

9. *Hypericum supinum, tomentosum, minus vel Montpellieracum. C. B. Pin. 279. The lesser or Montpellier trailing, stocky St. John's-wort. Hypericum tomentosum. J. B. 3. 384.*

Hypericum

Hypericum supinum, tomentosum alterum. Clus. Hist. clxxxi.

This Species has a thickish, ligneous and reddish Root; many hairy and hoary Stalks a Palm or nine Inches long; Leaves like those of common *St. John's-wort*, but covered with a whitish Down; and smaller yellowish Flowers, with shorter Heads.

It grows in the Isle of *Malea*, and about *Montpelier*, in Places naturally wet, and where Water has stagnated during the *Winter*.

10. *Hypericum palustre, supinum, tomentosum.* Trailing *St. John's-wort*. *Ascyron supinum, villosum, palustre.* C. B. Pin. 280. *Ascyron supinum* *eddes.* Clus. App. alt. auct. Marsh *St. Peter's-wort*, with hoary Leaves.

This Species of *St. John's-wort*, or *St. Peter's-wort*, is very soft, and covered with Down; having not a quadrangular but a round Stalk, which is always surrounded by Leaves in Couples alternately, growing opposite to one another, as in common *St. Peter's-wort*, but somewhat rounder, bearing Flowers on the Top of the Stalk, which consist of five Leaves of a yellow Colour, which being buised do not yield a red Juice, like that Kind which grows in drier Places; which may be attributed to the wet Soil. All the Stalks lie flat upon the Ground, and when gathered fresh are full of Juice, putting forth Fibres almost at every Joint, and thus producing new Branches which are hid under the Water; for which Reason it propagates it self very fruitfully.

This Plant is frequently to be met with in the *Western Parts of England* in Marshes; but more rarely in other Places. It propagates it self far and wide in rotten and watery Marshes, and covers all our Moors or Bogs. It does not rise to any Height, rarely appearing half a Foot above-water; nor is it very branchy, and bears but a few Flowers on the Tops of the Stalks.

Mr. *Ray* suspects, that this is the same with *Mentzelius's* marsh *Pink* with roundish hoary Leaves and golden Flowers: For both the Description, Figure, and Place agree.

11. *Hypericum villosum, erectum, caule rotundo.* Upright hoary *St. John's-wort*, with a round Stalk. *Androsæmum hirsutum.* C. B. Pin. 280. *Hypericum Androsæmum*

didum. J. B. 3. 382. *Androsæmum alterum, hirsutum.* Col. Part. 1. 74. This is the *Hypericum majus, sive Androsæmum Matthioli.* Park.

The Stalks are above a Cubit and a half high, round, hairy and stiff, branched the whole length, especially at top, the Branches being shorter than in common *St. John's-wort*, cloathed with thick-set Leaves placed opposite to one another, downy, veiny, larger and broader than in common *St. John's-wort*: The Flowers are a little smaller and paler than in that; and the Seed-vessels alike. The Segments of the Cup are beset with blackish red Bristles at the Borders; so that the Top seems to be strewd with blackish Spots like a sort of fine Dust. The Root is full of Shoots, and oblique.

It grows in Hedges and Thickets; and flowers in the Month of *July*.

12. *Hypericum montis Olympi, foliis circa margines hirsutis.* *Wheel.* Itin. 221. *St. John's-wort of Mount Olympus*, with Leaves hairy about the Edges.

Wheeler makes this Plant to be different from his *Constantinopolitan Tutsan*: For the latter has a Stalk a Foot high and better, whereas the former does not rise a Span above the Ground: The Leaves of the latter are like those of common *St. John's-wort*, but smaller; whereas those of the former have the Colour and Consistency of common *Tutsan*, only they are longer and rougher: And lastly, which is chiefly to be observed, the Seed-vessel of the latter is round, like that of common *Tutsan*; whereas that of the former is oblong, and divided into five Cells.

13. *Hypericum elegantissimum, non ramosum, folio lato.* F. B. 3. 383. The most beautiful *St. John's-wort* without Branches, with a broad Leaf. *Androsæmum Campoclarense.* Col. Part. 1. 74. *Androsæmum glabrum, non ramosum.* Bor. Monsp. This is the *Androsæmum Matthioli.* Park.

The Root of this Plant is small, ligneous, divided into many Parts, fibrous, writhed, producing two or three Stalks above a Cubit high, round, upright, smooth, slender, and yet firm, having Leaves at the Joints in Couples opposite to one another, without Foot-stalks, which are greenish, without Holes, membranous and smooth, with small Veins

Veins sinuated into an Arch derived from the middle Rib which runs quite along to the Point, and marked at the Edges on the under Side with little red Spots. At the Bottom of the Stalk the Leaves are rounder and smaller, equal to those of common *St. John's-wort*, but thicker-set, by reason of the Shortness of the Intervals, still growing larger to the Middle of the Stalk, more distant from one another (the Intervals being a Palm and better) and more oblong, three Inches long, and almost an Inch and a half broad: But from the Middle of the Stalk to the Top always decreasing, smaller and narrower, till they become very small. The Flowers form a sort of an Umbel, while they are yet in their prime, after the manner of small *Centaury*, possessing the very Top of the Stalk, when it is not divided into Branches like *Hypericum*, of a whitish yellow Colour, not unlike the Flowers of common *St. John's-wort* except in Bigness, marked with black Spots along the Borders of the Leaves and Flower-cups, in which those black Spots seem to be supported by a very fine and very short Hair. When the Flowers fall, and the Top of the Stalk stretches it self higher, those Wings, of which the Umbel is composed, are divided, and seem to be above one another alternately; in which the Flower-cups have Fruit full of small black Seed.

The Smell of the whole Plant, but especially of the Flowers and Fruit, is resinous: And the Flowers, Fruit, and Tops yield a black purple Juice, as in common *St. John's-wort*.

This Plant is not very rare in hilly Places, as for instance, on *St. Vincent's Rock* near *Bristol*; on the mountainous Thickets above the Town of *Denbigh* in *Wales*, and elsewhere both in the *Western* and *Northern* Parts of *England*.

14. *Hypericum amplexifolium*, *perfoliatum* folio. *St. John's-wort* with a large Thoroughway Leaf. *Androsæmum amplexifolium*, *perfoliatum* folio. *Bocc. Mus. Part 2. 164.* *Androsæmum Sambac perfoliatum* folio. *Ejusd. Tab. 127.*

This Species bears Leaves adhering to the Stalk without Foot-stalks, which are large and pointed like the *Sambac* of the *Arabians*, like the Lobes of the *Phaseolus*, but smaller, and of a greenish yellow Colour. The Stalk is taper and round, and about a Foot high;

The Flowers are numerous, and resemble those of common *St. John's-wort*.

It grows near the Monastery of *Pareus* in stony Places.

15. *Hypericum Ascyron dictum*, caule quadrangulo. *J. B. 3. 382.* *St. John's-wort* called *Ascyron*, or *St. Peter's-wort*, with a quadrangular Stalk. *Ascyron*. *Dod. Pempt. 78.*

From a creeping, fibrous, reddish Root it puts forth Stalks, like those of common *St. John's-wort*, four-corner'd with four little Membranes or Wings running all along lengthwise, reddish and branched. The Leaves are shorter than those of common *St. John's-wort*, but broader, especially at the Bottom, more nervous, but rising and smelling the same Way, not pierced with any Holes, and resembling the Leaves of *Wood Marjoram*. The Flowers are yellow and five-leav'd, above one half smaller than those of the mentioned Plant, the Leaves not being fringed, and having also a threefold Pointal, and very short Foot-stalks, and yielding a red Juice like Blood when squeezed betwixt your Fingers. The Seed-vessel is smaller, but of the same Shape, and composed of three Cells, and full of small Seed.

16. *Hypericum saxatile*, tenuissimo & glauco folio. *Rock St. John's-wort*, with a very small grey Leaf. *Coris lutea*. *C. B. Pin. 280.* *Hypericoides*, *Coris quorundam*, & *Coris legitima*, *Cretica*. *J. B. 3. 384.* *Cori legitima di Dioscoride*. *Pon. Bald. Ital. 98.* This is the *Coris Matthioli*. *Park.*

This Shrub rises with ligneous Branches like *Heath*, about the Bigness of *Thyme*, or rather of *Montpelier* fair *Heath Low-pine*; which Branches are round, upright, divided into many Wings, and roundish. The Leaves grow in Threes, and are radiated at the Joints at small Distances, like those of *Tree-heath*. The Tops of the Stalks, which end in Branches, bear yellow Flowers like the other Species of *St. John's-wort*, consisting of five radiated Leaves, with many Curls of yellow Chives possessing the Middle. It retains green Leaves in the Winter, according to the Testimony of *Bellus*. Under the Flower stand small green Leaves at the Bottom.

17. *Hypericum scetidum frutescens*. *Stink-ing Shrub St. John's-wort.* *Androsæmum scetidum*.

fatidum, capitulis longissimis filamentis donatis. C. B. Pin. 280. *Ruta Hypericoides quibusdam, Siciliana affinis, sive Tragium.* J. B. 3. 385. *Tragio legitimo di gli Antichi.* Pon. Bald. Ital. 88. This is the *Androsæmum fatidum*. Park.

This is a Shrub beautiful to behold, rising three and sometimes five Cubits high, with a round, smooth, Stalk, which is branched and reddish, and sometimes as thick as one's Arm, and Leaves opposite to one another at the Joints, twice as big as those of common *St. John's wort*, smooth, nor at all pierced, and stinking, of a somewhat acid Taste, as *J. Baubinus* fancies. The Flowers are large, much like those of *Siciliana*, but four times as large, and yellow, with a great many small, yellow, curled Chives possessing the Middle. To which succeeds an oblong, round Head, as big as the Fruit of the *Turpentine-Tree*, which is full of very small Seed, out of the Top of which issue long *Stamina* (which deserves to be taken notice of :) These Heads do not fall from the Plant, but always stand upon it.

It grows in great plenty by the Sides of Springs and Brooks, not only in *Crete*, but likewise in *Sicily* and *Calabria*. The whole Plant smells so strong of a Goat, that it may be smelt at a great Distance. In the *Summer* it sweats a little Rosin. It continues always green; and flowers in the Month of *June*.

18. *Hypericum perfoliatum & perforatum.* *Perfoliate and perforated St. John's wort.* *Androsæmum perfoliatum & perforatum.* C. B. Pin. 280. *Androsæmum alterum, Apulum.* Col. Part. 1. 78.

From a fibrous, reddish, oblique Root it sends up several Shoots a Foot high and better, which are reddish and round; with a Border running along alternately from Joint to Joint, which makes the Stalks as if they were corner'd; which Stalks are divided from the Bottom into several Wings, on the Joints of which and of the Stalks are set Leaves in Couples opposite to one another alternately, in so much that they seem to be perforated by the Stalk, as in the *Periclymenum* and *Androsæmum Campoclarense*, but smaller, sharper, and whiter underneath, smooth, and marked on the Edges with almost imperceptible black Spots, likewise transmitting Light through the Pores, as in

the other Species. However, it differs from the rest; for the Leaves do not decrease and become less at the Top of the Stalk, but always grow larger and broader up to the very last Point of the Stalk, and are hollow like a little Bason, and dented round the Edges with small Teeth, which are so fine that they almost escape the Sight. The Flowers are many, growing in Clusters like *Corymbi*; and the Leaves of the Flower-cups and Flowers are marked with those very small black Spots, which are not raised as in the *Hypericum majus Matthioli*. The Clusters of Flowers before they blow are more round and compact than the rest, but are somewhat oblong when they begin to gape. It flowers in *May* and *June*. The Leaves of the Flowers are hollow, and broader than the former, with Nerves running lengthwise, and also appear spotted underneath like the Leaves of the Flower-cups. It produces ripe Fruit in *May*.

This is a rare Plant, and but little known.

19. *Hypericum Alpinum, humilium, magno flore punctato.* Low mountain *St. John's wort*, with a large spotted Leaf.

20. *Hypericum latifolium, Lusitanicum.* *V. Lusit.* Broad-leav'd Portuguese *St. John's wort.* *Hypericum Myrti acuto folio, siculum.* Bocc. Mus. Parr. 2. 133. Tab. 92.

21. *Hypericum Lusitanicum, Linariæ folio.* Portuguese *St. John's wort*, with a Toad-flar Leaf.

22. *Hypericum tomentosum, Lusitanicum, minimum.* The smallest flocky Portuguese *St. John's wort*.

23. *Hypericum Creticum, supinum, folio subrotundo, flore magno.* Candy trailing *St. John's wort*, with a roundish Leaf, and a large Flower.

24. *Hypericum Creticum, amplissimo folio, nitido.* Candy *St. John's wort*, with a very large shining Leaf. *Ascyroides.* P. Alp. Exot. 172.

25. *Hypericum villosum, foliis caulem ambientibus acutis, cæteris vero circinatis.* Hoary *St. John's wort*, with sharp Leaves encompassing the Stalk, and the rest exactly round.

26. *Hypericum orientale, foliis subrotundis, auritis, cauli adhærentibus.* Oriental *St. John's wort*, with roundish eared Leaves adhering to the Stalk.

27. *Hype-*

27. *Hypericum orientale*, *Parmicæ foliis*. Oriental St. John's-wort, with Sneeze-wort Leaves.

28. *Hypericum orientale*, *fœtido simile*, sed inodorum. Oriental St. John's-wort, like the stinking kind, but without Smell.

29. *Hypericum orientale*, *saxatile*, *Majoranæ folio*. Oriental rock St. John's-wort, with a Marjoram Leaf.

30. *Hypericum orientale*, *Androsæmo hirsuto simile*, sed glabrum. Oriental St. John's-wort, resembling hairy Tutlan, but smooth.

31. *Hypericum orientale*, *Polygoni folio*. Oriental St. John's-wort, with a Knot-grass Leaf.

32. *Hypericum orientale*, *caule aspero*, *purpureo*. Oriental St. John's-wort, with a rough purple Stalk.

33. Idem, *Linariæ folio*. The same, with a Toad-star Leaf.

34. *Hypericum orientale*, *Rorismarini folio glauco*. Oriental St. John's-wort, with a grey Rosemary Leaf.

35. *Hypericum orientale*, *foliis Coris in-torris*, & plurimis ab eodem exortu. Oriental St. John's-wort, with the twisted Leaves of fair Heath low Pine, many rising at the same Place. *Coris foliis crispis montis Olympi*. Wheel. Itin.

36. *Hypericum orientale*, *flore magno*. Oriental St. Johns-wort, with a large Flower. *Hypericum montis Olympi*. Wheel. Itin.

37. *Hypericum orientale*, *latifolium*, *sub-hirsutum*, *caule purpureo*, *villosq*. Oriental broad-leav'd, somewhat hairy St. John's-wort, with a purple hairy Stalk.

This Genus is called in Greek, *Hypericon*, which the *Latins* have retained; and some have called it *Eugademonum*, superstitiously imagining that it will drive away Devils; and some call it *Perforata*, or *Porosa*, from the many small Holes that are to be seen in the Leaves. But we find, That in the Time of *Dioscorides*, the Name *Hypericum* was given to five several Herbs, viz. *Ruta sylvestris*, *Onobrychis*, *Hypericum*, *Ascyrum* and *Coris*, as may be seen in his Commentaries: And as to this *Hypericum* also, he says, That in his Time it was called *Androsæmum* (from the bloody Juice which the Flowers yield,) and

Chamæpyris (from the resinous Smell of the Seed and Heads;) and yet all these Herbs are severally described by *Dioscorides*, in several Chapters of his Commentaries.

The First Species is that which is commonly used in Shops, and esteemed of greatest Vertue in Physick.

It drys and warms; consists of subtle Parts, is diuretick and vulnerary. It is used chiefly in cleansing and consolidating Wounds, both externally and internally; in resolving coagulated Blood; in breaking the Stone in the Kidneys; in driving out Worms; (viz. if it is gathered when it is at its Height of Vigour, for otherwise it wants that Faculty :) Externally, in Contusions, especially of the Nerves, in Trembling, and in easing the Pains of Child-bed, by smelling to the Smoak of it. *Schrod.*

Paracelsus ranks it amongst the Herbs that prevent Witchcraft and Apparitions; and directs, That it should be gathered under the Influence of *Mars*, *Jupiter*, and *Venus*, (but by no means under that of the Moon) early in the Morning; and teaches the several Uses of it. He says, That it is to be used instead of an Amulet, that it is to be put into one's Hat, to be laid under one's Pillow in the Night, to be often smell'd to, to be strewed up and down the House, to be hung up upon the Walls, &c.

Of this Herb are prepared: 1. Distilled Water from the Leaves and Flowers, gathered in the End of June. 2. Oil from the Infusion of the Flowers in common Oil. 3. Salt from the whole Plant burnt to Ashes. 4. A Tincture.

Hoffman tells us, That this Herb given in form of an Essence is good in an Apoplexy, Epilepsy, Melancholy, Hypochondriacy, Possession, Green-sickness, &c. And assures us, That he experienc'd its Antidæmoniack Vertue upon one *Keutterling*, by reaching to him two Vessels, in one of which he had dropt some Drops of the Essence of the Flowers of *St. John's-wort*; against which the Patient shewed so much Aversion, that he would not so much as look at it, far less was he able to taste it. This same Patient instantly tore to pieces a Cap, in which were sewed the Tops of the Herb *St. Johns-wort*.

That red *Venetian St. John's-wort* Oil, whose Vertues cannot be too much extolled,

which is prepared from this Plant, is of excellent Use, not only in external and internal Wounds, but also in other Affections, as in Gripings of the Guts arising from a cold Cause, in the Sciatica, Gout, *tertian* and *quartan* intermitting Fevers, if the Backbone be anointed with it warm. Three or four Drams of it given in Wine expells the dead *Fætu*. And this Oil is likewise good to rub upon the Back and Plague Sores, when any one is seized with that Disease; and two Drams of it are to be given inwardly to such as are newly infected with this Contagion.

The Leaves, Flowers and Seeds stamped says our *Gerard*, and put into a Glass with Oil Olive, and set in the warm Sun for several Weeks together, and then strained from those Herbs, and the like Quantity of new put in, and sunned in like manner, doth make an Oil of the Colour of Blood, which is a most precious Remedy for deep Wounds, and those that are through the Body, for Sinews that are pricked, or any Wound made with a venom'd Weapon. I am accustomed, continues he, to make a compound Oil hereof; the making of which, says he, ye shall receive at my Hands, because that I know in the World there is not a better; no, not Natural Balsam it self; for I dare undertake to cure any such Wound as absolutely in each respect, if not sooner and better, as any Man whatsoever shall or may with Natural Balsam.

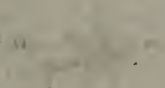
Take of White Wine two Pints, of Oil Olive four Pounds, of Oil of Turpentine two Pounds, the Leaves, Flowers and Seeds of *St. John's-wort*, of each two great Handfuls gently bruised; put them all together into a great double Glass, and set it in the Sun eight or ten Days; then boil them in the same Glass *pér balneum Mariæ*, that is, in a Kettle of Water, with some Straw at the Bottom, wherein the Glass must stand to boil; which done, strain the Liquor from the Herbs, and do as you did before, putting in the like Quantity of Herbs, Flowers and Seeds, but not any more Wine: And so have you a great Secret for the Purposes aforesaid. Thus *Gerard*.

The Leaves of this Plant are stiptick and a little saltish; they contain a Salt much of the Nature of *Sal ammoniack*; but, it is

united with a good deal of Earth, and dissolved in a Liquor like the Spirit of Turpentine: For the transparent Points which appear on the Leaves of this Plant, and which seem to be so many Holes, the black Points or Spots which are upon the Edges of its Flowers, and the Tubercles which we find on its Fruit, ought to be reckoned as so many Bottles full of that Liquor. It is not therefore surprising, that *St. John's-wort* is vulnerary, deterfive, diuretick, febrifugous, and very proper for the Vapours. This Plant is distilled, and there is made of it an Oil and an Extract: The Oil is either simple or compound. The Simple has been described already. As for the compound Oil, you must infuse a Pound of the Tops of this Plant in two Pounds of Oil and one Pound of Rose Wine; after being macerated three Days, you must boil it in *balneo Mariæ*, till all the Wine is consumed; you must make three Infusions in the same Manner, and in the last dilute a Pound of *Venice Turpentine*, and four Scruples of *Saffron*.

These Oils are excellent for all Sorts of Wounds: Half an Ounce, or an Ounce, is prescribed to be drunk for a Spitting of Blood, or the Bloody-flux. For the Sciatica, the Rheumatism, and such like Distempers, it is usual to rub the Part affected with two Ounces of the Oil of *St. John's-wort*, and one Ounce of good Spirit of Wine; this Mixture is very resolving. In order to make the Extract of this Plant, you must take its Flowers before they are blown; put them to digest for two Days in good Spirit of Wine; press out the Infusion, and let it evaporate to the Consistence of an Extract. The Dose of this is from a Scruple to a Dram. *Angelus Sala* prescribes the Use of this in Madness, in melancholy and raving Fits which come without a Fever, or any other manifest Cause. Some Authors have given this Plant the Name of *Yaga Demonum*, because they fancied it was proper to cure such as were possessed with evil Spirits. But it is good to observe, That this Sort of People are either Impostors and Cheats, or really distracted and hypochondriack; and generally speaking, all Fits which are reckoned good for pretended Possessions, are excellent for Vapours, for Madness, and for Melancholy. The Decoction of *St. John's-*

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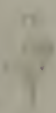


Fig. 1. *Pyrola. Winter green.*



Fig. 2. *Damafonium.*



wort, the distilled Water of this Plant, and the Infusion of its Seed, kill Worms and provoke Urine. This Plant is used in the Antinephrictick Syrup of M. Charas, and in the aperitive and cachectick Syrup of the same Author, in the Syrup of Mugwort, and in the Powder which Paulmier has prescribed for Madness, in the Theriaca Andremachi, and in the Theriaca reformata of Mr. Charas, in the Mithridate, in the compound Oil of Scorpion, in the Unguentum Martiatum, and in the Mundificative of Smallege. Tournefort.

The Decoction of the Herb drunk for forty Days, or the Powder of the Seed, cures the Jaundice and the Gout, is excellent for the Stone, kills the Worms in the Bowels, and endows the Blood with a balsamick Quality. D. Bowle.

The Tincture of the Flowers of St. John's-wort taken inwardly, is an excellent Remedy for Madness. Sala, Gremls. It has the same Effect in Melancholy. D. Needham.

Among the various Vertues of St. John's-wort, T. Bartholinus tells us, That he learnt this one of a noble Lady, That it is a most excellent Remedy for expelling Worms if the Flowers infused in Spirit of Wine be administered to such as are troubled with them. But this is no new Experiment: For both Camerarius and others have commended the Juice of St. John's wort for killing of Worms, as we have seen above.

Lemery says, That the Tops of this Plant when in flower, are often used in Physick; That they give a red Tincture to Oils, to the Spirit of Wine, and other sulphurous Liquors; and that they contain abundance of balsamick Oil and essential Salt.

The same Author tells us, That they are aperitive, deterfive, and vulnerary; that they provoke Urine, and the Terms in Women; That they expel Worms, resist Poison, fortify the Joints, and are proper for the Nephritick Cholick; and lastly, That they are used both inwardly and outwardly.

TABLE CXXXII. Fig. 2.

GENUS II.

Ascyrum, St. Peter's-wort.

ST. Peter's-wort is a Plant with a Rose-flower A, consisting of many Leaves placed orbicularly B: Out of whose many-leav'd Flower-cup C, rises the Pointal D, which afterwards turns to a pyramidal Fruit E, consisting of five Cells F, and full of Seeds G, which are generally oblong and small.

The Species of St. Peter's-wort are,

1. Ascyrum magno flore. C. B. Pin. 283. Prodr. 130. Great-flower'd St. Peter's-wort. Androsceum flore & theca quinque-capsulari, omnium maximis. Mor. Hist. Oxon. Part. 2. 572.

2. Ascyron exiguofolio, flore magno. St. Peter's-wort with a small Leaf, and a large Flower. Hypericon Olympi montis. Wheel. Itin. An Ascyron magno flore. Park.

3. Ascyrum erectum, Salicis folio, magno flore. Upright St. Peter's-wort, with a Willow Leaf, and a large Flower.

The Grammarians will have this Plant to be called Ascyron from the Greek Word *ασχυρον*, which signifies Roughness, and the privative Particle *α*; as if you should say, A Plant that has no Roughness, but is perfectly smooth.

It has the same Vertues with St. John's-wort, but in a lower and fainter Degree; and therefore is more seldom used.

TABLE CXXXIII. Fig. 1.

GENUS III.

Pyrola, winter green.

WINTER-green is a Plant with a Rose-flower A, consisting of many Leaves B, placed orbicularly: Out of whose Flower-cup C, rises the Pointal D, ending in a Proboscis E, which afterwards turns to a roundish Fruit F, which is channelled, generally umbellated, and consisting of five

Cells G, and full of Seeds that are comm only small H.

The Species of *Winter-green* are,

1. *Pyrola rotundifolia major*. C. B. Pin. 191. Great round-leav'd *Winter-green*. *Pyrola*. J. B. 3. 535. Dod. Pempt. 138. This is the *Pyrola nostras vulgaris*. Park.

It spreads five or six Leaves upon the Ground, which are roundish, as large as a Pear Leaf, thick, of a black-green Colour, smooth and shining on the upper Side, and resting on Foot-stalks almost a Palm long : among which rises a Stalk nine Inches high, cornered, furnished with some small sharp Leaves not divided into any Branches, bearing a Thyrsus of beautiful Flowers, which are five-leav'd, whitish, and almost like *Orchis* Flowers, the two upper Leaves resembling a Helmer, or rather a Label cut in two, with many saffron Chives possiding the Middle ; out of which comes forth a crooked Pointal bending downwards, and representing as it were a Proboscis. To the Flowers succeed cornered Heads full of fine Dust. The Taste of the whole Plant is bitter, not without a notable Astringency.

This Plant is found in many Parts of the North of England. It grows in great plenty near the Town of *Halifax*. Mr. Ray gathered it on the Hills near *Geneva*, and in the hilly Forrests in many Parts of *Germany*. We meet with it ofner with us here in *England* in mossy Moors among the *Heath*, than in Woods.

2. *Pyrola rotundifolia, minor*. C. B. Pin. 191. Small round-leav'd *Winter-green*. *Pyrola minima, Alpina*. J. B. 3. 536. *Pyrola quarta, minima*. Clus. Hist. cxvii.

This little *Pyrola* has a creeping Root like the former, and rising up in several Places ; from whence shoot up several Stalks, about two or three Inches high, bare for some Space ; in the Middle whereof are set at several Joins two or three Leaves apiece, each being smaller, rounder, and thinner than the former, a little snipt about the Edges ; and at the Tops stands only one Flower apiece, composed of five round white Leaves, somewhat larger than the first, very like the Flower of the *Parnassus-grass*, having several yellow Chives in the Middle encompassing a green Head, which has a Pointal at top parted into five

Threads. The Head grows in time to be five-corner'd, containing Seed like the former.

3. *Pyrola folio mucronato, serrato*. C. B. Pin. 191. *Winter-green* with a pointed and dented Leaf. *Pyrola folio serrato*. J. B. 3. 536. *Pyrola secunda, tenerior*. Clus. Hist. cxvii. This is the *Pyrola tenerior*. Park.

This tender or slender *Winter-green* rises from a small Root like *Couch-grass*, creeping several Ways under-ground, with several weaker and more slender Stalks than in the former ; on which are set somewhat longer, pointed Leaves, which are dented round the Edges, nothing so hard to the Touch, but otherwise very like the former : On the Tops of the Stalks stand several white Flowers like the former, but smaller, as are also the five-corner'd Heads that follow, in which is contained such-like dusty Seed.

Mr. Ray observed this Plant on the Hills near *Geneva*, and in the mountainous Forrests not far from *Constans* towards *Scaphausen*. He suspects that it is the same Plant which D. *Witham* found growing in *Hazelwood* in *Yorkshire*, and shewed him ; for that the Leaves were smaller than in common *Winter-green*, and pointed, and gently dented round the Edges, and sprang up in shady Places.

4. *Pyrola frutescens, Arbuti folio*. C. B. Pin. 191. Shrub *Winter-green*, with a Strawberry-tree Leaf. *Pyrola fruticans*. J. B. 3. 536. *Pyrola tertia, frutescens*. Clus. Hist. cxvii.

This is a most beautiful Plant, which sometimes comes to be a Shrub ; for the new and short Branches, which succeed one another every Year, continue firm and green some Years, and appear above the Earth, till at last being prest down with their own Weight, they lie down and hide themselves in *Moss*, and put forth Fibres. There are Leaves set commonly at each Joint, where new Branches come forth ; which Leaves grow in Couples, Threes, and Fours, being fleshy, of a deep green Colour above and shining, much resembling the Leaves of *Spurge Lawrel* both in Figure and Size, but gently dented round the Edges, of a very drying Taste, and then bitterish, like the other Species. Out of the Middle of these commonly come forth new Buds in the Month of *April*, which are furnished with little Leaves

Leaves like Scales, and afterwards turn to little Rods ; on which stand three, four, and sometimes five Flowers like the Flowers of common *Winter-green*, but somewhat larger, of whitish purple Colour : To which succeed five-corner'd Heads, full of Seed like *Sawings*, which wither with their Rods in *Winter*. The Root, or rather the little Stalks hid under the Moss, spread far and wide upon the Surface of the Earth, and thence shoot down Fibres.

It grows in great plenty in the Woods near *Entzestorf* Castle, sometimes among the common Kind.

This Genus, which is not honoured with any *Greek* Name, is called in *Latin* *Pyrola* from the Resemblance of its Leaves to those of the *Pear-tree*.

The First Species is most used in Physick, and of that the Leaves, which are of a cooling, drying, astringent, consolidating and vulnerary Vertue. It is very much celebrated both for internal and external Use. *Schrod.*

Winter-green, says *Parkinson*, is very cold and drying, and exceeding astringent, and glutinous withal ; whereby it is a most singular Remedy for green Wounds, to consolidate their Lips speedily, either the green Leaves bruised and applied by themselves, or the Juice of them, or a Salve made of the green Herbs stamped, or the Juice boiled with *Axungia* or Hogs-lard, or with Sallad Oil and Wax, and some Turpentine added to it ; which is so sovereign a Salve for all manner of Wounds and Sores, that the *Germans* use it exceeding much, and extol it beyond any other Salve made of a simple Herb : They likewise use it for inward Wounds or Hurts, being boiled either by it self or with other Wound-Herbs, as *Comfrey*, *Mousse-ear*, *Burnet*, *Periwinkle*, *Tomentill*, *Horse-tail*, *Avens*, *Ladies mantle*, *Betony*, *Agrimony*, *Madder* Roots, *Golden Rods*, and the like ; wherewith they use to heal whosoever is wounded, either in the Body or Bowels, or any other Part, by giving them to drink of such a Decoction. The Herb boiled in Wine and Water, and the Decoction given to drink to such as have any inward Ulcers in their Kidneys, or Neck of the Bladder, does wonderfully relieve them ; it likewise stops Fluxes, whether of Blood or of Humours,

as the Lask, Bloody Flux, or Womens too abundant Courses ; as also the bleeding of Wounds ; and both takes away any Inflammation arising upon the Pains of the Hurt, and hinders any from rising, being presently applied after the Hurt received ; it is no less celebrated for foul Ulcers hard to be cured, as also for Cancers and Fistula's. The distilled Water of the Herb doth effectually perform the same Things ; and some keep the dried Herb to use in Decoctions, or to make into Powder to drink. Thus *Parkinson*.

Winter-green, says *Lomery*, is very astringent, vulnerary, cooling, and proper for Fluxes, for Hemorrhagies, for the Inflammations of the Breast, being taken either in Infusion or Powder. It is also used externally in Plaisters and in Ointments for stopping of Blood, and for drying up of Wounds.

TABLE CXXXIII. Fig. 2.

GENUS. IV.

Damasonium.

Damasonium is a Plant with a Rose-flower A, commonly consisting of three Leaves B, placed orbicularly : Out of whose Flower-cup rises the Pointal C, which afterwards turns to a Star-shaped Fruit D, with many Cells E F, and full of Seeds which are generally oblong G.

The Species of *Damasonium* are,

1. *Damasonium stellatum*. *Lugd.* 1058. *Damasonium stellatum* Dalechampii. *J.B.* 3. 789. *Plantago aquatica stellata*. *C.B. Pin.* 190. *Star-headed Water-plantain*.

This Plant has little fibrous Roots collected into a Bunch like *Water-p'awnain*, from whence come forth Leaves upon Foot-stalks a Palm long, resembling the Leaves of *Water-plantain* but much smaller, and sometimes feathered at the Insertion of the Foot-stalk. The Stalks are small, a Palm and a half or nine Inches long, round, naked, and jointed with Knots at long Intervals : Out of whose Joints, and on the very Tops of the Stalks, break forth radiated Foot stalks an Inch long, standing in a Circle, on each of which stands

a Star

a Star confisting of five or fix Rays, which is most beautiful and resembles the Stars of the *Aizoon peregrinum*. Cam. The Rays of these Stars are nothing else but Pods or membranous Seed-vessels containing small yellowish Seed.

It is found in standing Water, but rarely; and grows in great abundance in a Pool or Fish-pond near the High-way as you go into *Rumford*, a little Town in *Essex*.

2. *Damasonium Americanum*, maximum, *Plantaginis folio*, flore flavescente, fructu globoso. *Plum.* Great American *Damasonium*, with a Plantain Leaf, a yellowish Flower, and a globular Fruit.

This Plant contains abundance of Oil and Phlegm, and a little essential Salt. It is detersive, astringent, cooling, and being applied to Womens Breasts is proper to put away the Milk.

TABLE CXXXIV. Fig. 1.

GENUS V.

Ruta, Rue.

Rue is a Plant with a Rose-Flower A, commonly consisting of four Leaves B, which are hollow and placed orbicularly: Out of whose Flower-cup C, rises the Pointal D, which afterwards turns to a roundish Fruit E, which is generally four-corner'd, compos'd H, of four Cells F, fixed to an Axis G, and full of Seeds not seldom in the Shape of a Kidney I, or cornered.

The Species of *Rue* are,

1. *Ruta hortenſis*, *latifolia*. C. B. *Pin.* 336. Broad-leav'd Garden Rue. *Ruta sativa* vel *hortenſis*. J. B. 3. 197. *Ruta Graveolens*, *hortenſis*. Dod. *Pempt.* 119.

This is a Shrub, or rather Under-shrub, with a Stem one or two Cubits high, about the Thickness of one's Finger, of an Ash-colour, and divided into many Branches: In the Beginning of the *Spring* it puts forth from these many long, round, very green and flexible Shoots: On the Tops of which, towards the End of the *Spring*, and in the *Summer* are Flowers in the like Order, like those of *Wall flower*, but smaller, consisting

of four and sometimes five yellow Leaves hollow like a Spoon, the hollow Side being uppermost. In the Middle of the Flower is a Head divided into four and sometimes into five Parts, of a green Colour, and having a small Point: From its lower Part come forth eight or ten yellow *Stamina*, the middlemost of which reaches above the Concavity of the Leaves, but the rest are inserted in the Intervals betwixt the Leaves. In the Heads is contained small Seed, of a roundish Figure somewhat oblong, and of a black Colour. On all the Branches grow small blueish Leaves on long Foot-stalks, not ranged in any regular Order, cut into several unequal Parts, soft and fat; the most Part of which do not exceed half an Inch in Length, and not quite so much in Breadth. The Root is divided into many Parts, with many Fibres and Capillaments hanging at it, and is of a yellow Colour. It is green the whole *Winter*, the Leaves not decaying till new ones spring forth in the *Spring*, at which Time also the Shoots wither which bore the Seed.

The Tops breath a piercing, aromatical, and withal a stinking Smell, and warm the Mouth with a bitter, burning, and penetrating Taste; but especially the green Heads of the Flowers.

2. *Ruta hortenſis*, *latifolia*, *arbusculæ similis*. C. B. *Pin.* 336. Broad-leav'd, garden, shrub-like Rue.

3. *Ruta hortenſis*, *altera*. C. B. *Pin.* 336. Another garden Rue. *Ruta tenuifolia*. Tabern. *Icon.* 133.

Parkinson is of opinion, That it differs not in Specie from the great wild *Rue* which immediately follows, but only in Culture. It rises with lower and smaller Stalks than the First; and has smaller and darker green Leaves. It seldom flowers in this Country, has not so strong a Smell, nor quite so bitter a Taste. Thus it is described by *Parkinson*; but *Cordus* differs a little from him. It answers in every respect, says he, to broad-leav'd *Rue*, only that it is much smaller in all its Parts; for it has Leaves divided into small Parts like *Fumitory*, but does not spread so wide. That described by *Parkinson* seems to be nothing else but the great wild *Rue* transplanted and cultivated in Gardens. If there is any Species betwixt the garden and the

Ruta. Rue.

Fig. 1.



Harmala.

Fig. 2.





the great wild *Rue*, differing both in its Leaves and Heads, it is yet a Stranger to us.

4. *Ruta sylvestris major*. C. B. Pin. 336. J. B. 3. 199. Great wild *Rue*. *Ruta sylvestris graveolens*. Dod. Pempr. 120.

This wild *Rue* is in all Respects like the garden *Rue*, but much lower and smaller; the Leaves also are divided into narrower and longer Segments, of a darker green Colour, and not so much on the Ash-colour. The Stalk is strong and ligneous, in the natural or native Soil, much more than in these cold Climates, but rises not near so high as our garden Kind. It has a stronger and more nauseous Taste and Smell than the garden Kind. The Heads which succeed the Flowers are much larger than those of the other wild Species, and are four-corner'd like the other. The Flowers themselves are yellow, and consist of four yellow Leaves.

It grows on the craggy Hills about *Montpelier* and *Nismes*; and Mr. Ray observed it in *Switzerland*, near a Town called *Massa*.

5. *Ruta Chalepensis, latifolia, florum petalis villis scatenibus*. H. L. Bar. Broad-leav'd *Rue* of *Aleppo*, with the Leaves of its Flowers beset with Down.

6. *Ruta Chalepensis, tenuifolia, florum petalis villis scatenibus*. Mr. Hist. Oxon. Part. 2. 508. Narrow-leav'd *Rue* of *Aleppo*, having the Leaves of its Flowers beset with Down.

7. *Ruta montana, spinosa, Coriandri folio, flore albo*. Bocc. Mus. Part. 2. 70. Prickly mountain *Rue*, with a Coriander Leaf, and a white Flower. *Ruta montana, spinosa, alba*. Eysd. Tab. 59.

This Plant produces many hard and sharp Prickles, like the *Thlaspi spinosum fruticosum*. Lob. and was observed by *Boccone* in *Corfica* on the Ascent of the Hill *Coscione*, and on *Monte rotundo* above the Village of *Corte*, near a Spring. The Flower is white, and the Smell of the Leaves is much the same with that of our wild *Rue*. The Plant is perennial, of a pale green Colour, and about a Yard high. The Leaves are roundish like those of *Coriander*.

8. *Ruta sylvestris, Linifolia, Hispanica*. Bocc. Mus. Part. 2. 82. Tab. 73. Wild, Hair-leav'd, Spanish *Rue*.

The Smell of the Leaves, and the Resemblance of the Flowers and Seeds, entitle this Plant to a Place among the Species of *Rue*. It grows in *Spain* in barren Places, and rises more than a Span above Ground.

9. *Ruta orientalis, Linariæ folio, flore parvo*. Oriental *Rue*, with a Toad-stay Leaf, and a small Flower.

Ruta, ῥήγανον, is doubtless of a Greek Original, since we read ῥήγανον in *Athenæus*, and the Interpreter of the *Theriaca* of *Nicander*, and *Jolas* a very antient Greek Author, write in their *Peloponnesiacks*, That what was called ῥήγανον all over Greece, the *Peloponnesians* called ῥήγανον. And *Varro, Lib. 4. de L. L.* says, *Quæ in hortis Nascentur alia peregrinis vocabulis, ut Græcis, Ocimum, Menta, Ruta, quam nunc ῥήγανον appellant, &c.*

Now *Ruta* comes from ῥίω *Servo*, as *Dioscorides* informs us, because it preserves the Health.

They say that this Herb was called ῥήγανον from its Property, because by its Dryness and Heat it condenses and coagulates the Sæd. And therefore it is pernicious to Women with-child. *Plutarch*.

The Four First Species are used in Physick, but the First and Third are most celebrated.

The whole Plant has a very strong Smell, and so great an Acrimony, that when it is gathered, it will penetrate through three Gloves, and leave its Smell on the Hand: And if any one rubs his Face with the Hand that gathered it, it will immediately raise a violent Inflammation, as *Dioscorides* has justly observed.

It warms and dries powerfully; it cuts, attenuates, digests, discusses, is alexipharmack, cephalick, and proper for Diseases of the Nerves. Its chief Use is in curing and preventing various Diseases, such as the Plague and other malignant Distempers, in preventing Poison, sharpening the Sight, restraining Lust, curing the Pleurisy, correcting the Weakness of the Stomach, removing the Cholick, curing the Bite of a mad Dog, &c. It is used outwardly for the Bitings of Serpents, Carbuncles, in the Fits of Agues (being anointed on the Back) in the Head-ach proceeding from Excess in eating or drinking, in the Megrin, in malignant Fevers (mixing

it with Salt and Vinegar, and fomenting the Pulse with it) in Pains of the Head caused by burning and malignant Fevers, being laid to the Soles of the Feet in the same Manner.

N. B. It does harm to big-bellied Women, if it be used too much internally. *Schrod.*

Of this Herb are prepared : 1. Distilled Water from the Plant with the Stalks gathered in the Month of *May*. 2. Distilled Oil, with Water. 3. Infused Oil, from the Herb infused in common Oil. 4. Salt from the incinerated Plant. 5. Vinegar, by Infusion. 6. Balsam, from the distilled O. *Id.*

The warm Decoction of *Rue* in Wine is a good Gargle for rotten Teeth, and scorbutick Gums. It likewise carries off crude Humours in the Stomach. *Tabernemontanus* affirms, That *Rue* provokes Lust in Women. *Lib. 1. Herbar. Sect. 4. cap. 32.*

We know by Experience, says *J. Bauhinus*, that *Rue* is discarded from Tables, and is of no Use in the Kitchen, by reason of its disagreeable Smell and burning Taste, which make us loath it. But because it resists all Sorts of Poisons, it is therefore the peculiar *Theriac* of the poorer Sort : For it has such great Vertues, that *Tragus* thinks no Body is able sufficiently to set them forth.

Rue is celebrated chiefly upon three Accounts : 1. For preserving Chastity, and restraining Lust, according to that of the *Schola Salernitana*, *Ruta facit castum*. But why *Rue* should make Men chaste, and make Women lustful, no other Reason can be assigned, than that Men are of a hot, and Women of a cold Constitution. However, there is a sufficient Reason to doubt whether it has really these contrary Effects on the different Sexes.

2. For sharpening the Sight ; which the *Schola Salernitana* also teaches :

*Nobilis est Ruta, quia lumina reddit acuta.
Auxilio Ruta vir lippe videbis acutè.*

And elsewhere,

*Feniculum, verbenà, Rosa, Chelidonià, Ruta,
Ex his fiet aqua quæ lumina reddet acuta.*

3. For preventing and curing the Plague and other malignant and contagious Diseases,

being either infused in Wine, according to that Verse of the same *Schola Salernitana*,

Salvia cum Ruta faciunt tibi pocula tuta.

or used in any other Manner.

1. The Conserve of *Rue* is made after this Manner : Take of the Tops and Leaves of green *Rue* one Ounce, of double refin'd Sugar three Ounces ; beat the Tops and Leaves in a Stone Mortar with a wooden Pestle : When these are very well beat, put the Sugar reduced to Powder to them ; then beat them all together, till they be reduced to one Body, and then set them in the Sun in a Glass Box for a Month. Of this take half an Ounce fasting against the Plague.

2. The Vinegar is made thus : Take the Tops with the Leaves, lay them upon a Linnen Cloth 24 Hours, that so they may fade a little ; then shred them, put them into a Phial, pour upon them the best Wine-Vinegar ; stop the Phial, and put it in the Sun : At the End of two Months strain it, and keep it for Use.

3. To make the Oil : Take of fresh *Rue* cut and bruised four Ounces, of old Oil one Pound ; macerate it at the Sun, or in any warm Place fifteen Days ; then boil it in a double Vessel ; and having thrown away the former *Rue*, put in fresh, and macerate that fifteen Days also ; afterwards boil it in like Manner ; and last of all, repeat it the third Time, and strain it.

If you take either the Oil of *Rue*, or for want of that, the Juice squeezed from fresh *Rue*, and drop a Drop of it into the Water of *Grass*, *Rue*, or *Scordium*, &c. and give it to Children to drink, it is said from certain Experience, that all the Worms will die. *Sim. Pauli.*

For the Falling-sickness, Take of the Juice of *Rue* one Ounce, of the Honey of *Squills* half an Ounce : This is a present Remedy for such as are troubled with that Distemper. *Valleriola.*

Sylvius, Prax. L. 1. cap. 46. § 80. among the Antepileptick Medicines which he there describes, allows the first Place to *Rue*, as well wild as garden, both of which abound with an acrid and biting Salt, and therefore proper to correct an acid Spirit.

Dolcum

Dolæus also advises, *lib. 2. cap. 1. § 19.* such as are afflicted with the Epilepsy, to bruise *Rue* with their Fingers, and thrust it up their Nose, as *Poley-mountain* also is to be applied; and to smell to other volatile Salts, which will certainly shorten the Fit.

And *Fabricius Hildanus, Observ. Cent. iv.* writes, That he made frequent Use of *Rue* in the Epilepsy, and that he often found the Efficacy and Success of it.

Dr. Bowle, in his Observations which he sent to *Mr. Ray*, mightily commends the Syrup of *Rue*, in all Affections of the Head and Nerves.

Antonius Mizaldus recommends *Rue* boiled with *Hyssop-Wine* and drunk, to Women whose Terms do not come regularly or kindly.

For the Suffocation of the Womb, Take the Leaves of *Rue* shred small, beat them with the White and Yolk of an Egg, fry them in a Frying-pan in Form of an Amulet, and apply them warm to the Navel. This was the Experiment of one who likewise put to it Egg-shells.

I have found the Decoction of wild *Rue*, which they commonly call *Stone Rue*, to be a most effectual Remedy for driving out the Stone and Gravel. *Achilles Gasserus, Obs. 70.*

The Seed of this Herb taken in Wine is an Antidote or Counter-poison against all dangerous Medicines or deadly Poisons: And the Leaves, taken either by themselves or with Figs and Walnuts, which is called the Antidote of *Mithridates* against the Plague, makes all venomous Things, and among the rest the Venom of Serpents, to become harmless.

The eating of the Leaves of *Rue* takes away the Smell both of *Garlick* and *Leeks*.

The Antidote which *Mithridates King of Pontus* used to take every Morning fasting, thereby to secure himself against any Infection or Poison, was this, Take twenty Leaves of *Rue*, a little Salt, a couple of Walnuts, and a couple of Figs, beaten together into a Mass; which is the Quantity appointed for every Day.

Antigonus, in his *Rhapsody* or *Huddle of memorable Things*, relates a Story of a Weazel, that being to fight with a terrible fierce Serpent, eats *Rue*, and rubs herself all over with it beforehand, to be the better secured against

the Poison: By which it was found to be efficacious against the Sting or Biting of venomous Creatures.

An Electuary is made of it in this Manner: Take of *Nitre*, *Pepper*, and *Cummin Seed*, of each equal Parts; of the Leaves of *Rue* clean picked, as much in Weight as all the other three; beat them well together as much as is sufficient, and put to them as much Honey as will make them up into an Electuary; (but you must first prepare your *Cummin Seed*, laying it to steep in Vinegar for 24 Hours, and then dry it or rather toast it in a hot Fire-shovel, or, as others would have it, in an Oven:) This is a Remedy for the Pains of the Chest or Stomach, of the Spleen, Belly and Sides by Wind or Stitches; of the Liver by Obstructions; of the Kidneys and Bladder by Stoppage of Urine; and helps to extenuate fat and corpulent Bodies.

All the Sorts of *Rue*, says *Lemery*, contain abundance of exalted Oil, and of volatile and essential Salt. But the Garden *Rues* are mostly used in Physick. They are incisive, attenuating, discussive, proper for resisting of Poison, to fortify the Brain, to provoke the Terms, to overcome the Vapours, for the Wind-Cholick, for the Bittings of mad Dogs and Serpents; and are used both internally and externally.

TABLE CXXXIV. Fig. 2.

GENUS VI.

Harmala.

Harmala is a Plant with a Rose-Flower A, consisting of many Leaves B, placed orbicularly: Out of whose Flower-cup D, rises the Pointal C, which afterwards turns to a roundish Fruit E, consisting of three Cells F, and full of Seeds G, which are generally oblong. To these Marks must be added, That the Leaves are set on the Stalk in an alternate Order.

There is but one Species of *Harmala*, which is,

Harmala. Dod. Pempt. 121. Ruta sylvestris, flore magno, albo. C. B. Pin. 336. Ruta quæ dici solet Harmala. J. B. 3. 200.

D d d d

This

This is the *Ruta sylvestris syriaca*, five *Harmala*. Park.

This is a shrubby Plant, that puts forth many Stalks from one Root, which are furnished with several Branches, a Foot high, and of a blackish green Colour : On which are set oblong, plump or fat, and fleshy Leaves, of a deep green Colour, cut into many Segments, not much unlike the Leaves of *Anthora*, of a maukish, gummy, bitter and somewhat biting Taste : The Flowers on the Tops of the Stalks are white and five-leav'd, furnished with many yellow Fibres in the Middle ; after which follow Heads longer than the Heads of Garden *Rue*, but softer than them, and triangular, full of uneven, corner'd, blackish red Seed : The Root is hard, sometimes as thick as one's Finger, fibrous, of a pale yellow Colour. The whole Plant has a strong and unpleasant Smell.

Bellonius informs us, That it grows in sandy Places about *Alexandria* in *Egypt* ; and *Clusius* tells us, That a great deal of it grows in *New Castile* about *Madrid*, in that fruitful Soil, and on the Hills of *Guadalajara* ; that it flowers there in *July* and *August*, and bears ripe Seed in *September*. It seldom or never comes to flower in the colder Climates, for it is very impatient of Cold.

Harmala is supposed to be an *Arabic* Word, tho' *Dioscorides* mentions it in his Time as the common Name of this Plant.

The Vertues of it seem to be much the same with the former Genus. It contains abundance of Salt and Oil. It is incisive, attenuating, digesting, drying, opening, and is used for attenuating gross Humours, and to provoke Urine.

TABLE CXXXV.

GENUS VII.

Nigella, Fennel-Flower.

Fennel-Flower is a Plant with a Rose-Flower A, consisting of many Leaves B, placed orbicularly ; and furnished with a Chapter Z, placed betwixt the Leaves and the *Stamina* X, which is formed by certain Bodies shaped like Horns C : Out of the Middle of the Flower rises the Pointal D,

which afterwards turns to a membranous roundish Fruit FG, or oblong E, with many Horns at top, consisting of many Cells HIK, and full of Seeds LM.

The Species of Fennel-Flower are,

1. *Nigella arvensis, cornuta*. C.B. Pin. 145. Horned Field Fennel-Flower. *Melanthium sylvestre, five arvense*. J. B. 3. 209. *Melanthium sylvestre*. Dod. Pempt. 303.

This Species has a greater Resemblance to the *Melanthium Damascenum* than to any other, but betrays its Original by its Scragginess and Leanness, rising sometimes a Palm or nine Inches high, sometimes with single Stalks, and sometimes ligneous and channelled from the very Root, which is branched. The Leaves are like those of *Dill*, or rather of *Nigella Damascena*, but not so thriving, thinner, and cut into very fine Threads. The Flowers are Star-fashioned, consisting of five Leaves, of a blue or pale Colour, not larger than the Flowers of yellow Fennel-Flower, and not sustained by any Beards of small Leaves as the *Damascenum*. To these succeed Heads resembling those of *Columbines*, with five little Horns which incline different Ways at top, but growing together from the Middle to the Bottom. The Seed is black, and has but little Smell.

It is found every where among the Corn, through *Germany*, *Italy*, and the South of *France*.

Mr. Ray says, That when he travelled those Countries, he did not take this to be a different Species from the *Melanthium Damascenum flore simplici* ; but thought, whatever Difference there was between them was owing to Culture ; but he did not observe whether it wanted those green cut Leaves that sustain the Flower instead of a Flower-cup, the Want of which seems to establish more than an accidental Difference. *Parkinson* says, That some of this Genus are furnished with those Leaves that surround and sustain the Flower. *Clusius* writes, That there is found a Species very like if not the same with that in the Fields after the Corn is cut down, over all *Hungary*, *Austria*, and the rest of *Germany* and the *Netherlands*.

2. *Nigella arvensis, cornuta, flore pleno, subcaeruleo*. Horned Field Fennel-Flower, with a double blueish Flower.





3. *Nigella arvensis*, cornuta, flore albo. Horned Field Fennel-Flower, with a white Flower.

4. *Nigella latifolia*, flore majore, simplici, cæruleo. C. B. Pin. 145. Broad-leav'd Fennel-Flower, with a large, single, blue Flower. *Melanthium Hispanicum, majus*. Lf. ft.

From a small, oblong, yellowish Root rises a Stalk a Cubit high, round, green and smooth, and branched at top. The Leaves at the Root are very finely jagged, but those set on the Stalk are sometimes cut into broader Parts and sometimes finely divided like the lower Leaves: But the Flowers are larger than in the other Species, five-leav'd, each Leaf being as broad as one's Nail, of a beautiful blue Colour on the upper Side, but pale underneath, with raised Veins running thro' them. To the Flowers succeed five or six-corner'd hard Heads, divided at top into as many Horns that bend down on the Sides, which are full of blackish Seed without Smell, with membranous Partitions running between.

Seven or eight little blueish green, and gaping Flowers surround the Head. Park. Ger.

5. *Nigella angustifolia*, flore majore, simplici, cæruleo. C. B. Pin. 145. Narrow-leav'd Fennel-Flower, with a large single blue Flower. *Melanthium capite & flore majore*. J. B. 3. 207. *Melanthium Damascenum*. Dod. Pempt. 304.

This agrees with the seventh Species, that follows, except that it differs in the Flower, which consists of a single Row of five Leaves of a whitish blue Colour. The Middle is possessed by many *Stamina* with greenish Chives, with the Rudiment of the Fruit; all which are begirt with a Chaplet made of little shut Bags, and containing a Liquor like Honey.

6. *Nigella angustifolia*, flore majore, simplici, albo. Narrow-leav'd Fennel-Flower, with a large, single, white Flower.

7. *Nigella flore majore, pleno, cæruleo*. C. B. Pin. 145. Double blue Pigella, or Fennel-Flower. *Melanthium capite vel calyce, & flore majore, pleno*. J. B. 3. 208. *Melanthium Damascenum pleno flore*. Clus. Hist. ccviii. This is the *Nigella Damascena flore multiplici*. Park.

The Root is ligneous and yellow. The Stalk is a Foot or a Cubit high, round, channelled, hollow, smooth, stiff, of a dark green Colour, and branched. The Leaves are set on the Stalk alternately at Distances, having no Foot-stalks (excepting those at the Root, which are broader, and are furnished with Foot-stalks) narrow, and divided into small Jaggs, almost after the Manner of umbelliferous Plants, or like *Consolida Regalis*; each of which Jaggs ends in a sharp Point. On the Tops of the Stalks and Branches are single, beautiful Flowers, supported by five Leaves instead of a Flower-cup, which are like those on the Stalk, consisting of many Rows of jagged Leaves, of a whitish pale blue Colour, the inner Leaves being herby about the Borders and Jaggs. Numerous blue *Stamina*, furnished with herby Chives surround a swollen Head, which is membranous, and blown up as it were like a Bladder, and generally divided into five Cells. In every Cell are two Rows of large, oblong, uneven, black Seeds. But as many Cells as there are in each Head, so many Horns shoot up from the top of it, crooked like Rams Horns.

8. *Nigella flore minore, simplici, candido*. C. B. Pin. 145. Fennel-Flower, with a small, single, white Flower. *Melanthium calyce & flore minore, semine nigro & luteo*. J. B. 3. 208. *Melanthium*. Dod. Pempt. 303. This is the *Nigella Romana sive sativa*. Park.

This sweet *Nigella* grows up to be two Foot high, with several slender Branches, and many finely cut and divided Leaves on them almost as small as Fennel, and very like those of *Larks-beel*. At the Top of each Branch stands one Flower, composed of five blue Leaves fashioned like a Star, without any green Leaves under the Flower, as in some single, and another blue Sort, with a green Head in the Middle, encompassed with some few Threads, which Head grows to be the Seed-vessel, being a little long and round, with five small short Tops like Horns, standing at the Tops of the Heads, in which lie, in several Cells, small, black, and very sharp, sweet, strong smelling Seed. The Root is small, fibrous and yellow, perishing every Year.

9. *Nigella flore minore, pleno & albo*. C. B. Pin. 146. Fennel-Flower, with a small,

small, double, white Flower. *Melanthium capite minore, flore multiplicato*. J. B. 2. 229. *Melanthium pleno flore*. Clus. Hist. ccvii. This is the *Nigella flore albo multiplici* of Gerarde; and the *Nigella citrina flore albo multiplici* of Parkinson.

From a small single Root rises a single Stalk a Cubit, and a Cubit and a half high, round, channelled, hairy, naked, and divided into Wings. The Leaves grow alternately on long keeled Foot-stalks, of a Colour that inclines to yellow from green, divided into much broader Parts than in the common *Melanthium*, and hairy. The Flowers are of a whitish herby Colour, crouded with Leaves, and many herby Chives, with a five or six-corner'd Head, which is divided into as many Horns which turn upwards, and full of black sweet-smelling Seed like the common Sorrel, with membranous Partitions running between.

10. *Nigella Cretica*. C. B. Pin. 146. and Prodr. 75. Candy Fennel-Flower.

This is the *Melanthium simpliciflore Creticum*. Clus. and the *Nigella Cretica inodoro semine*. Park.

The first Leaves of this Plant are not much unlike the Leaves of *Larks-beel*, but narrower. Then comes up a short Stalk, not a Cubit high, which is divided into several Branches a little above the Head of the Root, which are small, round, two Foot high or better, very feeble, and scarce able to stand upright; on which grow thin-set Leaves, divided into few Jaggs: These Branches are again divided into other smaller Branches, each of which bears a single Flower, which is commonly divided into five Leaves that are of a greenish white Colour at first, and then whitish like common *Nigella*, and last of all somewhat inclining to blue, the Points still retaining their Greenness. Out of the Middle of the Flower comes forth a Head ending in five, six or seven Horns, crooked like a Goat's Horn, as in common *Nigella*, with many green *Stamina* all around, whose Chives are blue: Then below the *Stamina*, and upon the Leaves lie eight other split Leaves stretched out, at an equal Distance from one another, whose Foot-stalk with its Basis is blue, with two dusky Veins running across; and the Interval betwixt the Veins is of a yellowish green Colour. The Root

is also yellow, longish, small and somewhat fibrous; nor is it lively, but perishes in the Winter.

Clusius writes, That this Plant is very like if not the same with the Field *Nigella*.

11. *Nigella Cretica latifolia, odorata*. Park. Theat. 1376. Sweet-smelling, broad-leav'd, Candy Fennel-Flower. *Nigella alba, simpliciflore*. P. Alp. Exot. 261.

This broad-leav'd *Nigella* rises up from a yellowish, fibrous and annual Root, with one slender weak Stalk, divided into some Branches, on which are set long and divided Leaves, but not shaped like those of the other *Nigella*, which are Fennel-like or Larkspur-like, but much broader, and parted into Divisions somewhat like those of *Groundsel*, but cut into lesser and finer Parts. At the Top of each of the Branches stands a single white Flower, like the other *Nigella*'s, succeeded by Heads somewhat like them, which likewise contain black Seeds of a sweet Smell.

12. *Nigella flore simpliciflore, pallescente*. Park. Bat. Single, pale-flower'd *Nigella*.

From a straight Root, which puts forth Fibres at the Sides, rises a channelled, smooth, green Stalk, divided into several Branches, and these again into others; on each of which sits a pretty large Flower, of a pale blue Colour, with Leaves that stretch out into a circular Figure from a narrow Root and as it were long Foot-stalk; and shaped like a Top at the End, and not supported by any Beard of Leaves. Out of the Middle of the Flower comes forth a narrow Seed-vessel divided into five Parts, horned at top, around which stand eight other little split Leaves, stretched upon the Leaves of the Flower, as in the *Nigella Cretica*. C. B. each of which is attended by three tipped *Stamina*. The Leaves are thin and broadish, green, and adhering to the Stalk at the Roots of the Branches without Foot-stalks.

13. *Nigella orientalis, flore flavescente, semine alato, pleno*. Oriental Fennel-Flower. with a yellowish Flower, and a winged flat Seed.

That which the Greeks of old called *μελάνθιον*, *μελάνθιον*, &c. is called in the Shops and by the modern Botanists, *Nigella*, from the Colour of its Seed. It is called *Gith* by Pliny, *Dioscorides* and *Columella*.

The 1st and 8th Species are most used in Physick; and yet the rest are not to be rejected as useless and without Vertue. The Seed is chiefly if not only used, and is reckoned to be hot and dry in the third Degree, and therefore is proper for opening and attenuating. Its principal Use is in resolving and expectorating the Mucilage of the Lungs, in encreasing the Milk, in provoking Urine and the Terms, and in correcting the Venom of poisonous Bites. It is used as a Specifick in *quoridian* and *quartan* Agues. Externally it is of frequent Use in curing the Head-ach, in drying up Catarrhs (by using it as Snuff, or smelling it as Smoak) and applied to the Head in Caps and Fomentations. The Root has a peculiar Property of stopping any Flux of Blood, if it be chewed and put up the Nose. *Schrod.*

The Preparations of this Herb are: 1. The prepared Seed, which is done by being macerated in Vinegar, and then dried. 2. The distilled Water from the Seed. 3. The distilled Oil from the Seed. *Id.*

It is to be observed, That the Seed and the Root are not to be both gathered from one and the same Plant: For the Seed of the Garden *Nigella*, and the Root of the wild Kind are only used in Physick. We must likewise remark this of the Root, That it must not be chewed with the Teeth for stopping a Flux of Blood, as our Author would have it, but is only to be laid under the Tongue without chewing; for the circular Motion of the Blood being accelerated by chewing, the Flux is hereby rather increased than diminished. *Fr. Hoffman.*

An Oil is squeezed from the Seed of this Plant: which most Apothecaries use instead of *Spikenard* Oil, and are very much to blame for it.

The green Seed has a great deal of excrementitious Moisture; for which Reason it is dangerous to take it inwardly, as *Tragus* observes. And therefore, after it is washed it ought to be carefully dried, in the same Manner as *Carvi*. Upon which Account it is rather used parched than raw in Catarrhs and Distillations from the Head; in which Distempers this parched or scorched Seed is used with incredible Success: In which Cases I recommend this Bag, Take of the toasted Seed of *Nigella*, *Tobacco*, *Syrax Calamite*,

of each one Scruple; of Amber-grease two Grains; mix them, put them into red Lawn, and make of all together a Bag proper to be held to the Nose. *Sim. Pauli.*

To recover the lost Smell: Take a sufficient Quantity of *Roman Nigella*, reduce it to Powder, and pound it with old Oil in a Mortar: Put of this Liquor into your Nose and snuff up the Spirit, holding up your Head in the mean while, and having your Mouth full of Water.

I cured a certain noble Lady of a Rheum, after I had given her that Snuff which I mentioned in the History of *Marjoram*, by administering to her the following Bag, Take of the parched Seed of *Nigella* half an Ounce, *Abelmosch*, the Leaves of *Carvi*, of *Marjoram*, of each two Drams; of *Storax Calamite*, and *Tobacco* one Dram, of Amber-grease seven Grains; of the Oil of *Rose-wood*, three Drops; mix them according to Art, and make of them a Bag; by which the Lady kept herself ever after from Catarrhs. *Sim. Pauli.*

The Seed of this Plant is used to resolve the stumy Matter that gathers in the Cavities of the Head, which causes a Rheum: For this Purpose, the Custom is to infuse a Pugil of *Marjoram* Leaves in a Glas of White-wine; to add to it a Dram of *Nigella* Seed; to strain the whole through a Linnen Cloth, and to draw that Wine up into the Nose, making a strong Inspiration. For the Cholick: Make a Pisan of the Tops of *Camomil*, *Melilot*, and the Seed of *Nigella*. The essential Oil of this Plant has the same Vertues: It is very incisive, and procures Expectoration. The Infusion of the same Seed is diuretical; and provokes the Terms. *Tournefort.*

Mr. *Lemery* informs us, That the Seed of this Plant, which alone is used in Physick, not being so good with them at *Paris*, they send for it to *Italy*, where it is much better. It must be chosen fresh, plump, and of a fine black or yellow Colour, and of an aromatick Smell and Taste.

It is, says the same Author, incisive, aperitive and resolute: It provokes Spitting, encreases Milk in the Breasts of Nurses, brings down the periodical Courses in Women, resists Poison, is proper for *quartan* Agues, is vulnerary, kills Worms, and removes Wind.

TABLE CXXXVI. Fig. I.

GENUS VIII.

Fabago, Bean-capers.

Bean-capers is a Plant with a Rose-Flower A, consisting of many Leaves B, placed orbicularly : Out of whose Flower-cup D, rises the Pointal C, which afterwards turns to a membranous Fruit E, shaped like a Cylinder, generally five-corner'd, five-cell'd F, gaping in five different Parts G, (each Valve H, being furnished with an intermediate Partition I,) and full of Seed K, which is commonly flat. To these Marks must be added, That the Leaves grow in Couples over against one another at the Joints of the Stalks.

There is but one Species of this Plant, which is,

Fabago Belgarum, five Peplus Parisiensium. *Lugd.* 456. Morgani syrorum. *Ejusd. App.* 25. Capparis fabaginea, five Peplios Luterianorum. *J. B.* 2. 66. Capparis Portulacæ folio. *C. B. Pin.* 480. Capparis Fabago five leguminosa. *Park. Theatr.* 1024. Bean-capers.

This is the *Telephium Dioscorides & Plinii*. Col.

It has a thick, perennial, long, white Root, covered with a thin Skin, tender, but more ligneous by Age; the Head sticking up through the falling off of its old Shoots, and the breaking forth of new ones every Year. The Root puts forth several firm, round, smooth, green, jointed Branches, resembling wild *Purslane*; and at each Joint stand Leaves upon Foot-stalks an Inch long, or shorter, thick, foliaceous, like the Foot-stalks of *Orange-Trees* on which the Leaves stand, but narrower and shorter; two Leaves coming forth at the same Place, which are fleshy, thick, smooth, like *Purslane* Leaves, tough, juicy, inclining something to blue, by reason of the white Down upon them mixed with green, broader and larger about the Root, insomuch that they are two Inches broad, and above two Inches and a half long; being smaller about the Branches like those of the *Portulaca caparia*, and smaller at top. At the Rise of the Leaves and Joints of the Stalks come forth two short

Foot-stalks, and about the Top in the Middle of the Branches stand first green, round *Corymbi*, which are oblong and upright, and gaping put forth the white inner Leaves a little, in Number five, as also the outer Leaves that contain them instead of a Flower-cup, making a *Corymbus*, with several saffron, oblong, intermediate, small, tipped, long *Stamina*, sticking as much out from their Center. These same *Stamina* have a thick Head and a short Filament at first, when the Flower gapes and is seen hollow: But when the Flower becomes more perfect, the *Stamina* lengthen very much, and the Heads or Chives lessen; and the inner white Leaves of the Flower present a saffron Nail that takes up one half of the Leaf. After the Flowers decay and fall, the Foot stalks continue, and have small, raised Pods; the *Stamina* also remaining at the same Time: But when the Pod is come to full Perfection, which resembles a *Radish* Pod, the *Stamina* perish, the Foot-stalk becomes crooked, and the Pod bends downwards, being greenish, smooth and shining, thick at the End, and hairy, from which five Lines as it were are drawn lengthwise, where the Pod, being now ripe and dry, gapes, and sheds many oblong Seeds.

It flowers in *June* and *July*, and bears Pods, which are ripe in *August* and *September*.

The Taste of this Plant is bitter, leaving some Acrimony upon the Palate, not much differing from the Taste of common *Capers*, from whence it got the Name of *Capparis*. And because its winged Leaves seemed to resemble the Leaves of *Beans*, others gave it the Name of *Fabago*.

The Taste of the Root is rough and harsh, somewhat acrid, and inclining to bitter: But the Leaves are bitterer. They report, That it is used by the *Syrians* to kill Worms, because of its Bitterness.

It is said to grow in rugged and ruinous Places in *Italy*: But *Mr. Ray* could never see it growing wild in any Part of *Italy*; nor never heard that it did so, from any one of good Authority.

Fig. 1. Fabago, Bean-Capers;



Fig. 2. Corchorus. Jews. Mallows. p. 575.





TABLE CXXXVI. Fig. 2.

GENUS. IX.

Corchorus, Jews Mallows.

Jews Mallows is a Plant with a Rose-Flower A, consisting of many Leaves B, placed orbicularly: Out of whose Flower-cup D, rises the Pointal C, which afterwards turns to a Fruit E, shaped like a Cylinder, consisting of five Cells F, gaping in five Parts G, and full of Seed that is generally corner'd H. To these Marks must be added, That the Leaves are set at the Joints of the Stalks in an alternate Order.

The Species of Jews Mallows are,

1. *Corchorus five Melochia*. *J. B. 2. 982.*
Jews Mallows. Melochia. P. Alp. Egypt. 39.

I have observed this Plant, says *J. Bauhinus*, with a smooth Stalk a Cubit high, with Leaves almost like those of *Cynocrambe* or *Mercurialis*, but larger, two or three Inches long, an Inch and half broad, dented round the Edges, which have a little Beard on both Sides of the lower Part, or a small Excrescence like a little Tenon. These same Leaves are crooked or bend back with a certain Pendicle like a little Horn about the Rise of the Sides, whose Ends diminish into a purple curled Filament. The Pods grow single upon a short Foot-stalk, being four or five Inches long, striped with yellowish Stripes, growing gradually smaller to the Point, gaping into five Divisions lengthwise, and containing abundance of ash-coloured, cornered, small Seed, that is viscid to the Taste. The Flowers, according to *Alpinus*, are small and saffron-coloured, smaller than those of *Wall-flower*, consisting of five short, broad, pointed Leaves.

This Plant is a Native of *Egypt*.

2. *Corchorus Americana, Carpinifolio*, fructu longiore. *American Jews Mallows*, with a Horn-beam Leaf, and a longer Fruit. *Alcea cibaria seu Corchorus Americana, Carpinifolia, sextuplici capsula longiore ornata.* *Pluk. Phytog. Tab. 127.*

3. *Corchorus Americana, foliis & fructu angustioribus.* *American Jews Mallows*,

with narrow Leaves and Fruit. *Alcea Olitoria, seu Corchorus Americana, angustobato folio. capsula strictiori.* *Pluk. Phytog. Tab. 127.*

The first Species grows in *Asia, Syria, and Egypt* and the neighbouring Countries in great abundance, where it is sown in their Gardens, as also in many Parts of *Spain and Italy*. It is so familiar in *Egypt*, that the Natives do not think they make a good Meal unless they have a Dish of it boiled in Water, or made into Broth. It seldom flowers with us, in regard the Summers are not hot enough to bring it to Maturity; and *Parkinson* tells us, That having sown it often, he could never have it grow above an Hand high, the first cold Air in the Night causing it to perish quickly.

It is called by most Botanists, *Melochia* or *Molochia*: It is thought by *Lobel* to be the *Corchorus* or *Corcorus* of *Pliny*, which he mentions in his 15th Book, cap. 32. not that which he speaks of in his 25th Book, cap. 13. which is that of *Dioscorides*, and *Theophrastus* in his 7th Book, cap. 7. for that is generally thought to be *Anagallis* or *Pimpernel*. *Rawolfius* in his Journal says, that in *Syria, Egypt, &c.* they call it *Moluchi*, and that it is that *Olus Indicum* which *Avicen* mentions. *Matthioli* thinks, that *Halimus* or *Sea-Purslane* is the *Melochia* of the *Mosers* and *Arabians*, because it was usually eaten as a Salad Herb.

Prosper Alpinus tells us, That it is very like *Marsh-mallows* in Virtue; for that it is much used to suppurate, digest, resolve, and mollify all hard Tumours; because its Mucilage is more slimy than that of *Marsh-mallows*. He says, that two Drams of the Seed is usually taken at a Time, to purge plentifully all Sorts of Humours. The Decoction of the Leaves, having Sugar-candy mixed with it, is very familiarly used against dry Coughs, Hoarseness of the Throat and Voice, and Shortness of Breath, as being a present Remedy against those Distempers. The Oil of it is used so familiarly among the *Egyptians*, saith *Alpinus*, in their Meals, that they seldom are without it; notwithstanding it breeds many Obstructions, and the viscous Nourishment it yields, tho' little, turns to Melancholy and other Diseases.

TABLE CXXXVII.

GENUS X.

Cistus.

C*istus* is a Plant with a Rose-Flower A, consisting of many Leaves B, placed orbicularly: Out of whose Flower-cup C, rises the Pointal D, which afterwards turns to a roundish Fruit E, or peaked F, generally gaping at top G, consisting of many Cells H, and full of Seeds that are generally small K.

The Species of *Cistus* are,

1. *Cistus mas*, major, folio rotundiore. *J. B.* 2. 2. The greatest male *Cistus*, with a roundish Leaf. *Cistus mas*, folio rotundo hirsutissimo. *C. B.* *Pin.* 464. *Cistus mas Matthioli.* *Lugd.* 222.

This is a Shrub like the other *Cistus*'s, and commonly rises about the Height of a Man; having somewhat hoary Branches, and Leaves larger than the other Species, and as it were orbicular, somewhat hairy and rugged. The Flower resembles the Flowers of the other Species, is of a deeper red Colour, and somewhat larger. The Heads are hairy, hard, five-corner'd, larger than the others, and contain red Seed.

It is found in the Kingdom of *Valencia* and *Aragon*: It is said likewise to grow plentifully in *Italy*.

2. *Cistus mas*, 2da, folio longiore. *J. B.* 2. 2. A second male *Cistus*, with a longish Leaf. *Cistus mas*, angustifolius. *C. B.* *Pin.* 464. *Cistus mas*, 2da. *Clus. Hist.* 69.

It rises as high as the common *Cistus*, and sometimes higher, with a no less shrubby Stem, nor a fewer Number of Branches, but is not quite so hoary. The Leaves are also ranged in the same Order, but are softer, longer, narrower, and more pointed. The Flower is alike, and of a carnation Colour; nor does it differ much from the other either in Head or Seed.

It grows in *Spain*, and flowers longer than the other male Kinds: And its Branches contract a certain dewy, fat, and sweet-smelling Moisture.

3. *Cistus mas*, folio brevior. *C. B.* *Pin.* 464. Short-leav'd male *Cistus*. *Cistus mas*, tertia, foliis dilutius virentibus. *J. B.* 2. 3.

It is shorter than the former, but not less shrubby, and has smaller Branches. The Leaves are shorter than the former, and of a fainter green Colour, more rugged, fat and sweet-smelled. The Flower is like the other, of a faint red Colour, and a little sweet-smelled; which *Mark Clusius* did not observe in the other Kinds of male *Cistus*. The Heads of this are much smaller than the former, and are longer hid within their Covers, which are the Flower-cups. The Seed in the Heads is even.

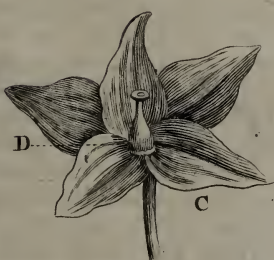
Clusius observed this only in *Portugal* growing wild, above *Lisbon*, in the Road to *Conimbra*, and also on the Sea-shore.

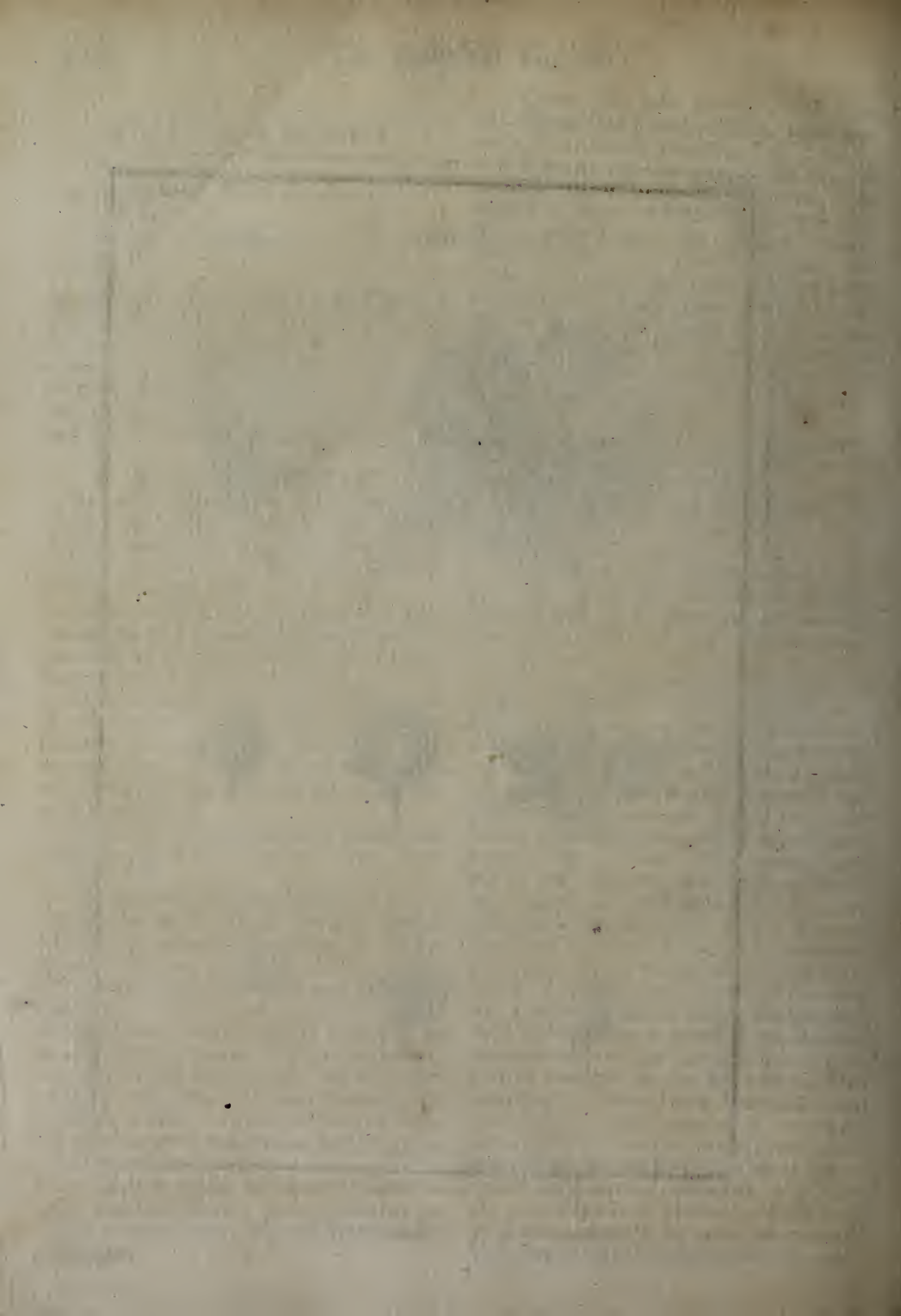
4. *Cistus Lusitanicus*, folio amplissimo, incano. Portuguese *Cistus*, with a very large hoary Leaf.

5. *Cistus mas*, folio oblongo, incano. *C. B.* *Pin.* 464. Male *Cistus*, with an oblong hoary Leaf. *Cistus mas quarta*, monspeliensis, folio oblongo, albido. *J. B.* 2. 3. *Cistus mas prima.* *Clus. Hist.* 68.

This is a stronger and more hoary Shrub than the female *Cistus*, two Cubits high, and, according to *Clusius*, as high as a Man, hairy, the Wood being very brittle, and covered with a whitish Bark. The Branches are thicker, answering to one another alternately and always opposite; and the same Order is observed by the Leaves, which are all over hoary, softer and longer in the young Plants, but in the full grown, more narrow, harder and rougher, of an astringent Taste, rugged underneath, narrower and thicker than the Leaves of the female *Cistus*. The Flower is about the Bigness of the Wood Rose, five-leav'd, of a fainter red Colour, or, as they say, a carnation Colour (many Stamina with their saffron Chives possessing the Middle) thick-set and crowded together, growing in greatest Numbers at the Ends of the little Branches, on short strong Foot-stalks, not weak, oblong, single ones, as in the female *Cistus*; to which succeed several five-corner'd, hard, hairy, peaked Heads, in which is contained small Seed of a blackish red Colour, about the Bigness of *Henbane* or *Poppy* Seed. *J. Baubinus* makes it to have three-corner'd Pods, begin with three hairy peaked Leaves.

Cistus.





At the Roots of this Plant, which spread upon and stick to the Turf, *Clusius* observed the *Hypocistis* growing in great abundance.

Mr. *Ray* observed this Plant growing in great Plenty on the barren and stony Hills, and in Woods, all over *Sicily, Italy* and the *South of France*.

6. *Cistus mas*, foliis undulatis & crispis. Male *Cistus*, with waved and curled Leaves. *Cistus mas*, foliis Chamædryos. C. B. Pin. 464. *Cistus mas* 5ta, foliis crispis, & quadammodo sinuosis. J. B. 2. 3. *Cistus mas* 5ta. Clus. Hist. 69.

This is commonly a low and groveling Plant, with Branches a Foot long or better, many of which come from the same Root. The Leaves are curled and somewhat waved, white and hairy, of an harsh and astringent Taste. The Flowers grow on the Tops of the Branches, of an equal Height, and as it were in Umbells, being somewhat smaller than the former, but of a beautiful red purplish Colour, more intense or deep than in the 5th Species here described. The Heads are smaller than those of the rest, generally wrapped up in their own Covers, and contain Seed like the rest, but blacker.

Clusius observed this Plant no where except only in *Portugal*, and not abounding so much any where there as at the Monastery called *Pera longa*, five Miles beyond *Lisbon*. It flowers in *April* sooner or later, according to the Nature and Genius of the Soil: The Seed is ripe in *August, September* or *October*.

7. *Cistus foemina*, folio *Salviae*, elatior & rectis virgis. C. B. Pin. 464. Tall female *Cistus*, with a Sage Leaf, and upright Stalks. *Cistus foemina*, monspeliiana, flore albo. J. B. 2. 4. *Cistus foemina*. Clus. Hist. 70.

This is a Shrub full of Branches, sometimes a Cubit high and upright, sometimes groveling and spread upon the Ground, with slender and blackish Branches. The Leaves are as big as in the 5th Species, almost exactly round, rugged and uneven, but green, and of an astringent and harsh Taste. It has a Flower somewhat smaller than the Male, much resembling the Flower of the 6th Species, white and sometimes yellow, with yellow Stamina, as in the wild *Rose*, possessing the Middle of the Flower, not smaller than those of the Male, but much larger than those

of the *Ledum*. The Heads are blacker than the Heads of the Male, smaller also, pointed but somewhat flat on the upper Part, five-corner'd, containing Seed a little blacker, and pretty big.

It grows very commonly on the barren and stony Hills and Thickets all over *Italy, Sicily*, and the *South of France*.

8. *Cistus foemina*, folio *Salviae*, supina, humi sparsa. C. B. Pin. 465. Grobelling female *Cistus*, with a Sage Leaf, and lying along upon the Ground. This is only a Variety of the former.

9. *Cistus foemina*, folio *Salviae*, flore ochrae colore. C. B. Pin. 465. Sage-leav'd female *Cistus*, with an Oker-coloured Flower. *Cistus foemina Hispanica*, flore luteo. J. B. Pin. 2. 4.

10. *Cistus Ladanifera* Monspeliensium. C. B. Pin. 467. The Gum-bearing *Cistus* of *Montpelier*. *Cistus Ladanifera*, five *Ledon* *Monspessulanum*, angusto folio, nigricans. J. B. 2. 10.

This is a sweet-smelling Shrub two Cubits high, branched out into several Arms, and covered with black Bark. The Leaves are an Inch and half long, narrow, black, rugged, standing opposite to one another at small Distances. The Flowers are white, much like small Wood *Roses*, in the Middle of which are yellow Chives: To which succeed bristly Pods (according to *Baibinus*, but according to Mr. *Ray*, small, divided into five Parts, shining with a bay Colour when ripe, not bristly but shut up in bristly Flower-cups) containing smaller Seed than those of the male *Cistus* of *Montpelier*.

Mr. *Ray* is of Opinion with *J. Baibinus*, with whom also *Magnol*, Doctor of Physick at *Montpelier*, agrees, That this is the same Plant with the *Ledon 5tum* of *Clusius*; for both the Place and the Description agree: For he says, That nothing is more common than that Kind of *Ledon* over the whole Kingdom of *Valencia* and the *South of France*, where he did not observe any other Kind of *Ledon*. And therefore the 9th *Ledon* of *C. Baibinus* with narrow Olive Leaves is to be referred hither. The Variety of the Leaves depends upon the Difference of the Soil.

Both *Clusius* and *J. Baibinus* observed the *Hypocistis* growing at the Root of this Plant.

11. *Cistus Ladanifera*, *Hispanica*, *Salicis folio*, flore candido. Gum-bearing Spanish *Cistus*, with a Willow Leaf, and a white Flower. *Cistus Ladanifera*, *Hispanica*, *incana*. C. B. Pin. 467. *Cistus Ledon imum*, *angustifolium*, flore omnino interdum albo. Clus. Hist. 77.

This *Ledon*, says *Clusius*, which is the commonest and fatiest of all the Kinds that grow in Spain, rises to a Man's Height, and sometimes even exceeds it, with many ligneous, hard, black Branches. The Leaves as well as the Branches are placed opposite to one another, being oblong, sometimes the Breadth of one's Finger, and sometimes broader, of a black-green Colour above, and whitish underneath, which with the tender Shoots are so bedewed with a certain fat, sweet-smelling, warm and transparent Liquor, that they may be seen and known a great way off by their shining, and smelled the eighth Part of a German Mile. The Flower is the largest and most beautiful of all the other Kinds of *Cistus*, like a great *Rose*, with the single Texture of five Leaves, sometimes altogether white, but each of whose Leaves about the Nail are died with a purple Spot, which is sometimes bigger and sometimes smaller and narrower, the Navel of the Flower being full of many saffron-coloured Fibres. On long Foot-stalks divested of their Leaves stand very large Heads, which are almost round and plain, not pointed, and often ten-cornered, hard, yellowish within; which coming to gape when ripe, shed abundance of reddish and very small Seed.

The whole Plant contracts a Whiteness when dried, but does not lose that fat Sliminess and sweet Smell for many Years.

It grows very common in a great many Parts both of Spain and Portugal, serving the Bakers to heat their Ovens, and the poorer Sort of People to make Fires. But it grows no where more plentifully than on the Hills and their Declivities betwixt the Rivers *Tagus* and *Guadiana*, and almost on the whole Mountain called *Sierra Morena*.

12. *Cistus Ladanifera*, *Hispanica*, *Salicis folio*, flore albo, macula punicante insignito. Gum-bearing Spanish *Cistus*, with a Willow Leaf, and a white Flower marked with a scarlet Spot. *Cistus Ledon imum*, *angustifolium*, flore macula ex purpura nigri-

cante infecto. Clus. Hist. 77. *Cistus Ledon*, flore macula nigricante notato. J. B. 2. 8.

13. *Cistus Ledon foliis Laurinis*. C. B. Pin. 467. Sweet *Cistus*, with Laurel Leaves. *Cistus Ledon latioribus foliis*. J. B. 2. 8. *Ledon imum*, *latifolium*. Clus. Hist. 77.

This broad-leav'd *Cistus* rises up with several ligneous Branches five or six Foot high, spreading many other smaller Branches, on which are set Leaves in Couples at the Joints over against one another, somewhat broader than those of the 11th Species, much resembling Bay Leaves, of a dark shining green Colour on the upper Side, and greyish underneath, clammy to the Touch, as are also the young Shoots and Stalks, and of a strong sweet Scent that may be smelt a great way off, especially in the Heat of Summer, and in the native Soil, much more than in these colder Countries. At the Tops of every Branch come forth single white Flowers, composed of five broad, round, pointed Leaves, sometimes without any Spots in them, and sometimes having a dark purple Spot at the Bottom of every Leaf pointed upwards, which in some are larger, in others smaller, with several yellow *Stamina* in the Middle: After which succeed big, roundish, hard Heads, containing within them small, brownish Seed. The Root is woody, and spreads many Branches, but not very deep.

14. *Cistus Ledon*, foliis *Populi nigrae*, major. C. B. Pin. 467. Great Sweet *Cistus*, with black Poplar Leaves. *Cistus Ledon Populi nigrae foliis Chysii*, major. J. B. 2. 9. *Ledon latifolium 2dum*, *majus*. Clus. Hist. 78. This is the *Cistus Ledon Populnea fronde major*. Park.

It rises not so high as the former, but only about three Foot. The brittle Branches have Leaves set on them in the same Manner as in the former, that is, two at a Joint one against another; but are larger than any other Sort of *Cistus*, being like the Leaves of Ivy, or of the black Poplar Tree, broadest at the Stalk, and pointed long at the End, green on the upper Side, and greyish underneath, somewhat thick and rough to the Touch, not having any Clamminess or Sweetness on them at all while they are young, but only when they are grown old. The Flowers are wholly white, and smaller than in any of the former, yielding five-cornered pointed

ed Heads, with small blackish Seed in them.

15. *Cistus Ledon*, foliis Populi nigrae, minor. C. B. Pin. 467. Small Sweet Cistus, with black Poplar Leaves. *Cistus Ledon*, Populi nigrae foliis Clusii, minor. J. B. 2. 9. *Ledon adum, latifolium, minus*. Clus. Hist. 78. This is the *Cistus Ledon Populnea fronde minor*. Park.

It is like the former in all Respects ; only it is lower, not exceeding a Cubit in Height. The Leaves are also smaller ; but they agree in Flower, Seed and Taste.

Both these Species grow on that Part of the Mountain called *Sierra Morena* which is in the Road from *Lisbon* to *Seville*, and on some Hills bordering upon *Granada*.

16. *Cistus Ledon*, latifolium, Creticum. J. B. 2. 9. Sweet, broad-leav'd, Candy Cistus. *Cistus Ledon Cretense*. C. B. Pin. 467. This is the *Cistus Ladanifera Cyria*. Park. & *Ladanifera Cretica vera*. Ejusd.

This Shrub rises sometimes above a Cubit high, with blackish Branches and fleshy Leaves, which by reason of their deep green Colour appear black ; and are of a middle Size betwixt the Leaves of the 12th and 14th Species, but shorter, and of a rhomboidal Figure, which with the young Branches are covered with a clammy and roscid Moisture, but not quite so copious, thick, and sweet-smelled as in the 12th Species. The Flower is white, and like that of the 12th Species. The Heads likewise contain a small black Seed.

J. Bauhinus describes the Leaves to be whitish underneath, with three Plantain Ribs running longwise ; and the Heads to be like those of *Veitches*, of the oblong Figure of *Olives*, hairy, with five Corners separated by Membranes, full of small, cornered, dusky Seeds like *Poppy* Seeds.

It grows in the Isles of *Cyprus* and *Candy*.

17. *Cistus Ledon*, hirsutum. C. B. Pin. 467. Sweet hairy Cistus. *Cistus Ledon atum Clusii, flore candido*. J. B. 2. 10. *Ledon atum* Clus. Hist. 78.

This is a Shrub with many Branches above a Cubit high, tough and clammy, hairy and whitish. The Leaves are softer than in the other Kinds of *Cistus*, resembling the Leaves of female *Cistus* but longer, narrower, hairy, and blacker, and covered with a clammy Farness, not only in the Spring but even

during the whole Summer. The Flower is white, and as big as the Flower of female *Cistus*, and not much unlike it. The Heads are small, and covered with certain membranous and lax Husks ; and contain a black Seed, which is the biggest of any of the Kinds of *Cistus*.

Clusius observed this Species only in Old Castile, in the Fields about *St. Martin del Castannel*.

18. *Cistus Ledon*, foliis Oleae, sed angustioribus. C. B. Pin. 467. Sweet Cistus, with narrow Olive Leaves. *Ledon sum*. Clus. Hist. 79.

This Shrub rises two Cubits high, is sweet-smelled, branched out into several Arms, and covered with black Bark ; with Leaves an Inch and half long, narrow, black, rugged, and opposite to one another at short Distances. The Flowers are small, resembling small wild *Roses*, in the Middle of which are yellow Chives : To these succeed bristly Pods, which are small, divided into five Parts, of a shining bay Colour when ripe, and containing small Seed.

19. *Cistus Ledon*, angustis foliis. C. B. Pin. 467. Sweet narrow-leav'd Cistus. *Cistus Ledon sum minoribus angustioribusque foliis Clusii*. J. B. 2. 11. *Ledon sum*. Clus. Hist. 79.

It is almost like the former but somewhat smaller, with shorter and narrower Leaves covered with a clammy Moisture like the Leaves of the other. The Flower is larger, white, and consists of five Leaves. The Seed likewise agrees.

20. *Cistus Ledon*, foliis Rorismarini, hispidis. C. B. Pin. 467. Sweet Cistus, with bristly Rosemary Leaves. *Cistus Ledon, foliis colore cinereo*. J. B. 2. 11. *Ledon sum*. Clus. Hist. 80.

The many Branches of this sweet *Cistus* are of an Ash-colour, plentifully stored with long and narrow Leaves, like those of *Rosemary*, and hairy withal ; yet clammy with that sweet Gum upon them as in the former. The Flowers are many, small and white like the rest ; nor is the Seed unlike.

These two last Species were observed by Clusius only in the Kingdom of *Valencia* about *Xativa*

21. *Cistus Ledon*, foliis Rorismarini, sed non incanis. Sweet Cistus, with Rosemary

many Leaves that are not hoary. C. B. P. n. 467. *Cistus Ledon gum Clusio*. J. B. 2. 12. *Ledon gnum*. Clus. Hist. 80.

22. *Cistus Ladanifera*, *Cretica*, flore purpureo. Sweet, Gum-bearing, Candy *Cistus*, with a purple Flower. *Ladanum Creticum*. P. Alp. Exot. 88. *Cistus è qua Ladanum in Creta colligitur*. Bellon. Obs. lib. 1. cap. 7.

23. *Cistus Ladanifera*, *orientalis*, flore purpureo majore. Sweet, Gum-bearing, oriental *Cistus*, with a large purple Leaf.

It grows in *Pontus* with a much larger Flower than in *Candy*; and therefore seems to be a Variety of it.

It is called in *Greek*, *κίστος*, and *κιστός*, and *κισάρον*; perhaps, says C. Bauhinus, from *κίστος* *Hedera*, by Reason of some Sort of Resemblance betwixt the Leaves of the one and the other: But this will not pass. Others would have it take its Name from a Youth called *Cistus*; about whom you may see a Fable in *Cassianus Bassus*: And others give other Etymologies, which are all equally uncertain and precarious.

The male *Cistus* is drying and astringent, not without some little Heat, tho' some think it to be cold, and is very proper to stay bleeding at the Nose or Mouth, Vomitings and Weakness of the Stomach, and Fluxes of Blood and Humours both in Men and Women, as the Lask, the Bloody-flux, and all other extraordinary Scowrings or Looseness of the Belly, and Womens inordinate Courses. The Flowers, say *Dioscorides* and *Galen*, are the most effectual for those Purposes, being drunk in Red Wine; yet the Leaves and young Buds or Shoots may be used with good Success; and these applied in a Cerote or Sear-cloth to any Scalding or Burning by Water or Fire, heal them quickly. Bruised and applied to any green Wound, they close up the Lips of it, and restrain the bleeding. The Leaves also and the young Shoots boiled in Wine, and the Decoction, used to wash filthy old Ulcers, even though they be cancerous, eating or spreading Ulcers, will wonderfully and quickly stay the fretting and moist Humours, and dry and heal them. The distilled Water of the Leaves and Flowers is of the like Efficacy; and in all Cases where there is required drying,

binding and strengthening, this is used to very good Purpose, *Park.* who has all this from *Dioscorides*, *Galen* and *Pliny*.

The female *Cistus* is no less drying and astringent than the male, and is used with equal Success for all the Purposes before recited. *Id.*

The Leaves of *Cistus Ledon* sweat a certain Liquor which is called *Ladanum*, gathered into Lumps of a dark purple Colour, of a strong but sweet Smell, inflammable, and breathing a sweet and grateful Smell when burnt.

Dioscorides informs us, That this Juice or Moisture sticks to the Beards and Haunches of the Goats that brouze and rub upon these Shrubs; and that the Inhabitants comb it off. The same Author also acquaints us, That some drew long Ropes over the Bushes, and scraped off the fat Liquor that stuck to them, and made it up into a Mass: Which is almost the same Way of gathering it which *Bellonius* observed in *Candy*, and describes more accurately thus: The *Greeks*, says he, make use of a particular Instrument in gathering of *Ladanum* like a Rake without Teeth, which they call *Ergastiri*. To this are tied many Thongs of raw and untanned Leather, which they rub gently upon the Bushes that bear the *Ladanum*, that so that liquid Moisture may stick upon the Thongs; after which they scrape it off with Knives when the Sun is at the hottest: For which Reason the Labour of gathering this *Ladanum* is excessive, and even intolerable, since they are obliged to remain on the Mountains for whole Days together in the very Heat of Summer, or the Dog-days: Nor is there any Person almost that will undertake this Labour, except the *Callobieroi*, i. e. the Greek Monks.

But if any one would go about to gather it in *Spain*, he might gather great abundance (as *Clusius* thinks) of that most pure, resinous and sweet-smelling Liquor; since there are whole Woods of the finest Sort of that *Cistus Ledon* in some Parts of that Country, which is called *Cistus Ledon flore macula negricante notato*.

The Account given of this by *Pomet* is as follows: The chief Commodity we sell, says he, that comes from the Goats of *Candy*, is a Kind

Kind of Fat or Grease which is found sticking to the Beards of these Animals, especially such of them as feed upon nothing but the Leaves of a certain Shrub very common in the hot Countries, which the *Botanists* call *Cistus Ledum*, or that Kind of it which produces the *Labdanum*: The Leaves are long and narrow, rough, very gluey, and of a dark green that continues all the Year.

The Inhabitants of the Country gather the Grease with wooden Instruments like Combs, and then make it up, being commonly full of Hair and other Filth, into a Mass or Cake of different Size and Weight, which is what is called *Labdanum* or *Ladanum*, that is natural, or in the Beard. But since the Islanders understood that there was a sweet, pleasant Smell in this greasy Substance, and that when it was well purified it would be considerably valued; they have taken care to melt it, and strain it through Cloths, as well to separate the Dross from it, as to give it a more fragrant Smell: Having thus refined it, they wrap it up in fine thin Bladders, as we have it brought us, and give it the Name of Liquid *Labdanum*, or Black Balsam. This Fat, thus prepared, is much used in *England*: As for what is used in *France*, it is scarce worth mentioning; the Perfumers being the only Persons that deal in it, either by Reason of its Dearness, or because it is but little known. The worst of this liquid *Labdanum* is melted down into Rolls, which they twist as they do Wax Candles, and this they call Twisted *Labdanum*.

Chuse the Beard *Labdanum*, the most fragrant and cleanest you can get: The Liquid Kind ought to be of a solid Consistence; of a fine Jet black, sweet and pleasant to the Smell, inclining to that of Ambergrise; which has given Occasion to some Merchants to sell Liquid *Labdanum* for Black Ambergrise. As to the twisted Sort, it ought to be rejected, as being full of nothing but Dirt and Sand. Besides these different Sorts of *Labdanum*, &c.

Lémery's Description and Account of it is as follows: *Ladanum* or *Labdanum* is a gummy or resinous Substance, of which there are two Sorts; the one solid, and the other liquid: The solid is formed into Rolls as big as one's Finger, twisted like Wax Candle, of a blackish Colour, and pretty sweet Smell,

when it is near the Fire. This is the common *Labdanum*, which the Merchants call *Labdanum in tortis*.

The other Sort is of the Consistence of a very thick Balsam, which is black, sweet-smelling, wrapt up in very thin Bladders, and is called Liquid *Labdanum*, or Black Balsam.

Both these Sorts of *Labdanum* are brought us from *Cyprus*, *Candy*, *Greece* and *Italy*: They come from the Leaves of a Shrub called *Cistus Ledon*, or *Cistus Ladanifera*, which grows very commonly in warm Countries, and of which there are several Species; for some have broad Leaves, and others narrow and pretty long, commonly green, brown, and sometimes whitish, but all over rugged, very clammy, and always green. The Flowers consist of several Leaves ranged in Form of a *Rose*; when these fall, they are succeeded by Fruit almost round, ending in a Point, which incloses small Seed.

The *Labdanum* is gathered in three different Manners: First, by means of Goats; for after these Creatures have browsed upon the *Cistus Ledon*, they return to their House with their Beards loaded with a gummy Substance, which the Peasants take care to take off with a Sort of wooden Combs made for that Purpose. They make that Matter up into Lumps; and because they are mixed with little Bits of Hair and other Filth, they call this Beard *Labdanum*, or Natural *Labdanum*. They made it up formerly into Cakes, and sent it us in that Form; but now they divide this Matter into two Sorts of Substances; they set it to melt on the Fire, or at the Sun, they strain and separate it through a Searce or Cloth, pressing it a little at the same Time, and wrap up the most liquid and most essential Part in very fine Bladders: This is the Liquid *Labdanum*. They afterwards take what remains, after it has been strained and pressed, and form of that the Rolls of Solid *Labdanum*, such as we see them, and then dry them. This *Labdanum* is very impure, being full of Earth and Sand; and yet it is that which is most commonly used in Physick for external Remedies, and for the Pastills which are used in Perfumes.

The second Way of making it is followed in *Greece*: The Inhabitants beat the *Cistus Ladanifera* with certain Thongs of Leather made

made on purpose, and called *Ergastiri*. The *Labdanum* sticks to these Thongs, is scraped off, and made up into Lumps: This is the best and sweetest-smell'd Sort.

The third Method is practised in *Spain*: They take the Leaves of the same Sort of *Cistus*, which are large in that Country; they boil them in Water, and there separates from them a *Labdanum* which swims on the Water, which they gather: This is the worst of all the three; because the boiling carries away and dissipates part of the Smell, or the spirituous Part.

You must chuse the light refinous *Labdanum*, which has least Filth in it, is of a dark Colour, smell's sweet when near the Fire, and grows soft with a gentle Heat, of an astringent Taste and somewhat bitter. It contains abundance of Oil and essential Salt.

It is proper for softening, for digesting, for attenuating, for resolving, for strengthening, and for stopping of Blood. It is an Ingredient in several Plaisters.

Schroder says, That the chief Use of it is in a moist and catarrhus Head, and in Dysenteries. The Antients commend it in a Cough from thick Phlegm, in the Strangury, &c. It is used externally in Plaisters that are emollient, anodyne, and that quiet the Cough, in the falling off of the Hair, of the Tooth-ach, Heart-ach, and in the Pain of the Stomach, (with a little *Bdellium* they make Pills, 1 or 2 in Number, to be given an Hour before Easing,) in the Suffocation of the Womb (given inwardly;) and it cures Scars.

It is effectual in Fumigations, for expelling the Afterbirth and the dead Fœtus, for a Schirrhus in the Womb; and is good in a particular Manner for all the Diseases of the Womb.

It is very much celebrated in old and hollow Ulcers, which have hard Lips and very much swelled.

Joh. Crato commends a Sear-cloth made of one Part of *Ladanum* and two of Wax; as being very good to nourish the innate Warmth, to dissolve Flatus's, and for promoting of Digestion. There is nothing better for such as have a flatulent Melancholy.

Altho' this Gum be inflammable, and Oil may be distilled from it by the Retort, yet it cannot be dissolved by fat Things; but may be wholly opened by the Spirit of Wine:

And tho' it cannot be dissolved in Water by boiling, yet the greater Part of it remains untouched; which is no less useful than that which is dissolved by Water.

TABLE CXXXVIII, CXXXIX.

GENUS XI.

Nymphæa, Water-Lilly.

Water-Lilly is a Plant with a Rose-Flower A B, consisting of many Leaves C D, placed orbicularly: Out of whose Flower-cup E F, rises the Pointal G H, which afterwards turns to an almost globular Fruit I, or conical K, consisting of many Cells L M, and full of Seed N O, that is generally oblong.

The Species of *Water-Lilly* are;

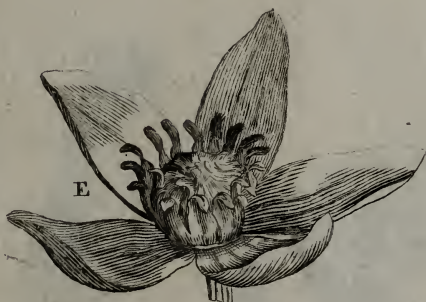
1. *Nymphæa alba*, major. C. B. Pin. 193. The greater white *Water-Lilly*. *Nymphæa alba*. J. B. 3. 770. Dod. Pempt 585.

It is very like the yellow *Water-Lilly* before it bears a Flower, but has rounder Leaves, with round Foot stalks both to the Leaves and Flowers. The Root, which is very thick, is covered with a blacker Bark, white and spongy within, from whence several Fibres come forth, to which it adheres at the Bottom: But the Flowers, which adhere to very long Foot-stalks that pass through the Water, are of a pure white Colour, somewhat sweet-smelled, like the Flowers of *Lillies*, and crowded with a great Number of Leaves; but the outermost Leaves on the outmost Part are of a greenish white Colour, like the *Star of Bethelem*; and the Middle is possessed by numerous *Stamina*. *Dodoneus* says, That the Flower is succeeded by a round Head, in which is contained blackish shining Seed, bigger than *Millet* Seed.

2. *Nymphæa Americana*, foliis circinatis, maximis, acutè crenatis, subrus purpureis, flore albo. *Plum.* American *Water-Lilly*, with very large, finely dented, and eractly round Leaves of a purple Colour underneath, and a white Flower.

3. *Nymphæa Americana*, foliis circinatis, minoribus, obtusè crenatis, subrus viridibus, flore albo. *Plum.* American *Water-Lilly*, with

Nymphæa . Water-Lilly .



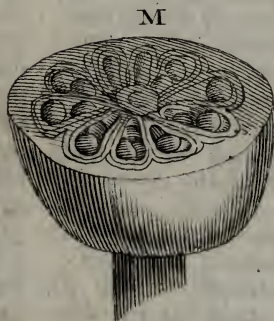
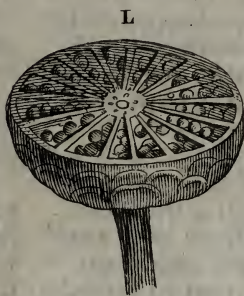
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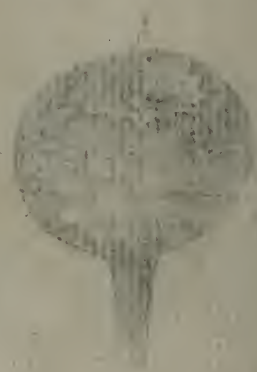
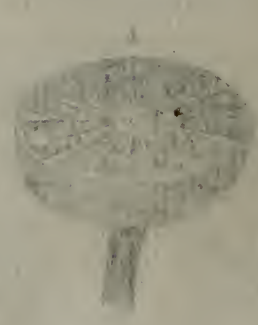




Nymphæa. Water-Lilly.



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with smaller, exactly round, bluntly dented Leaves green underneath, and a white Flower.

4. *Nymphaea lutea*, major. C. B. Pin. 193. Great yellow Water-Lilly. *Nymphaea lutea*. J. B. 3. 771. Dod. Pempt. 585.

You will hardly find any Water Plant that has a larger Root than *Water-Lilly*; for sometimes it is as big as a Man's Leg. This yellow Kind has a Root that is green without, white within, spongy and porous, endowed with a bitterish Taste, mixed with a certain Astringency, at which hang many Appendages, as thick as one's Finger, blackish without, and furnished with many small Fibres. The Leaves swim upon the Water, being a Span or a Palm and half long, a Palm broad, in the Shape of a Horse shoe, almost exactly round, somewhat more oblong than those of the white *Water-Lilly*, fat, and shining with a clammy green, smooth and slippery on the upper Side, but divided underneath by some Fibres, with Foot-stalks as thick as one's Finger, two or three Cubits long, and sometimes even longer, round, with fungous or spongy Pith that is pierced by a great many straight little Canals; by which several Foot-stalks meeting sometimes at their Rise, a very white Down covers them, as it does also the young Leaves, which resemble the Point of a Spear. The Flowers adhere to like Foot-stalks, and are of a most astringent Taste with some Sweetness, smelling like *Sisymbrium Cardamine*, consisting of five thickish Leaves of a yellow Colour, except the Bottoms, which are green on the outside; but within the five Leaves there is a double Crown, the former consisting of very small Leaves, which lying close to the outer Leaves seem to be wrinkled, and yellow in like manner, which is also the Colour of the latter or inner Row, but fainter, consisting of many Tenons that bend backwards, and Chives that reach to the former Row. The Middle or Center is possessed by the Sketch or Rudiment of the Head, which is of a greenish yellow Colour, which is dyed with a deep shining green, after the Rows and Leaves of the Flowers are fallen (which are now altogether green,) about the Bigness of a Poppy Head, but exactly resembling a Pitcher in Form, a big swollen Belly ending in a narrow Neck, which being gradually

dilated, forms the Brim of a Pitcher, which is uneven by reason of Stripes that stick out, and bored a little way instead of a Mouth. This contains shining Seed, which is larger than the Seed of the white *Water-Lilly*, and smaller than a Grain of *Wheat*.

The Flower seems to us to smell like that burning Spirit or distilled Liquor, which we commonly call *Aqua vite*.

It grows commonly in Rivers and marshy Ditches, and in great stagnating Pools.

The Species of *Nymphaea* may be easily known, even when they want both Flower and Fruit, by their large roundish Leaves swimming in the Water.

This Plant is thought to have received its Name from the Nymphs, because it grows in the Water, which the Poets feigned was inhabited by the Nymphs. *Pliny* deduces it from one *Nympha*, who was jealous of *Hercules* after her Death, and was transformed into this Plant; and from hence, says he, some call it *Heraclion*, and others *Rosalon* from its Root which resembles a Club. *Apuleius* calls it *Mater Herculeana*, *Alga palustris*, *Papaver palustre*, *Clavus veneris*, and *Digitus veneris*; and *Marcellus* an ancient Writer says, it was called *Clava Herculis*. In the Shops it is called by the Arabick Name *Nenuphar*.

The great white *Water-Lilly* is most used in the Shops, which is to be understood as often as the simple Name of *Nymphaea* is mentioned, without any distinguishing Appellation; and yet the yellow Kind is not to be neglected as useless.

The Root, Leaves, Seed and Flowers are all used in Physick. The Root and Seed cool, dry and bind: The Leaves and Flowers cool and moisten. Each of them are of special Use against the Flux of the Belly, nocturnal Pollutions, the Acrimony of the Seed, the Heat and Thinness of the Blood. The Leaves and Flowers are frequently applied externally to allay feverish Heats and procure Sleep, by washing of the Feet with them, or laying the Leaves upon the Loins, Temples, and Soles of the Feet. *Schrod.*

The Preparations made of this Plant are:
1. Distilled Water from the white Flowers.
2. Distilled Water from the yellow Flowers.
3. The simple Syrup of *Nymphaea*, from the Infusion of the Flowers.
4. The compound Syrup of *Nymphaea*.
5. The Conserve of the

the white Flowers. 6. The Oil of the Infusion of the Flowers. 7. The Ointment of *Nymphaea*. *Id.*

Karriobterus writes of the white and yellow *Water-Lillies*, that if either of them be dried in the Northern Sun, and hung up either upon the Bed or the Wall of the Chamber where a convulsive Person lies, it will cure him in a Moment. And the Decoction of the Root, or the Extract is commended by some against Madness. *F. Hoffman.*

Two Things pretty remarkable may be observed concerning the Root: One is, That the *Nymphaea* which bears a white Flower, has a black Root; and that which bears a yellow Flower, has a white Root: The other, That since both dry, bind, and cleanse, the white has a more powerful Faculty of drying, that I mean which bears the yellow Flower; and the black, or that which bears the white Flower, has a greater Virtue of cleansing, as we learn from *Galen*, 8 *Simpl.* But it dries, as the same Author says, without biting, which is an excellent Quality in it, and a great Commendation of it. And therefore *Theophrastus* tells us, the Use of it was very antient in Dysenteries; and both *Dioscorides* and *Galen* carried it further, and used it not only in Lienteries and Diarrhoea's, but also in the Whites.

But since it dries up the genital Seed, and takes away the Power of Generation, it must be used with great Caution. Whether it produces this Effect by a manifest or an occult Quality is not material to know; but *Alpinus* tells us, That although the *Egyptians* were sensible of the Vertues with which it was endowed, yet many of them dreaded the Use of it by Reason of its debilitating Quality in the Point of Generation. *Galen* tells us, That he added a little *Nymphaea* in case of a Priapism, and that he found by Experience that it produced a Cure by its natural Efficacy or Virtue. And therefore *Avicenna* cries out, That it lessens Pollution, and destroys the Desire of Coition, being drunk to the Quantity of a Dram with the Syrup of Poppy, and congeals the Seed by a certain Property that is in it.

Therefore *Prosper Alpinus* tells us, That the Hermits and others that lead a single Life, make use of this to keep them chaste. And when *Dioscorides* had told us, that this was

effected by drinking of it for several Days successively, *Pliny* defines the Number of Days to be twelve: For he writes, *Lib. 25. cap. 7.* That they who drink of it for twelve Days, are deprived of both the Desire and Power of Generation. The same *Pliny* tells us, That anointing the Genitals with it, produces the same Effect. And *Dioscorides* writes, That if the Stomach, Reins or Bladder be anointed with it, the Effect will be the same.

Theophrastus tells us, That the green Leaves laid upon a Wound stop the Blood. In *Egypt*, says *Alpinus*, they use the bruised Flowers and Leaves in all Cases where there is Heat; and likewise the Juice, especially to alleviate Pains, mixed with Milk and the Oil of *Roses*. In Fevers and Watchings they apply the bruised Leaves to the Head, and anoint the Forehead and Temples with its Juice mixed with Oil and Vinegar. In *Germany* and most other Places, all these Qualities are ascribed to the distilled Water: But *C. Hoffman* thinks, they ought rather to be attributed to the Seed, because *Avicenna* writes, that it is more powerful in every Respect.

The Root of white *Water-Lilly* boiled in black Wine and drunk, is a most effectual Remedy for stopping the immoderate flowing of the Terms, even when their Cure is despaired of by every Body. *Trag.* The Seed has the same Effect.

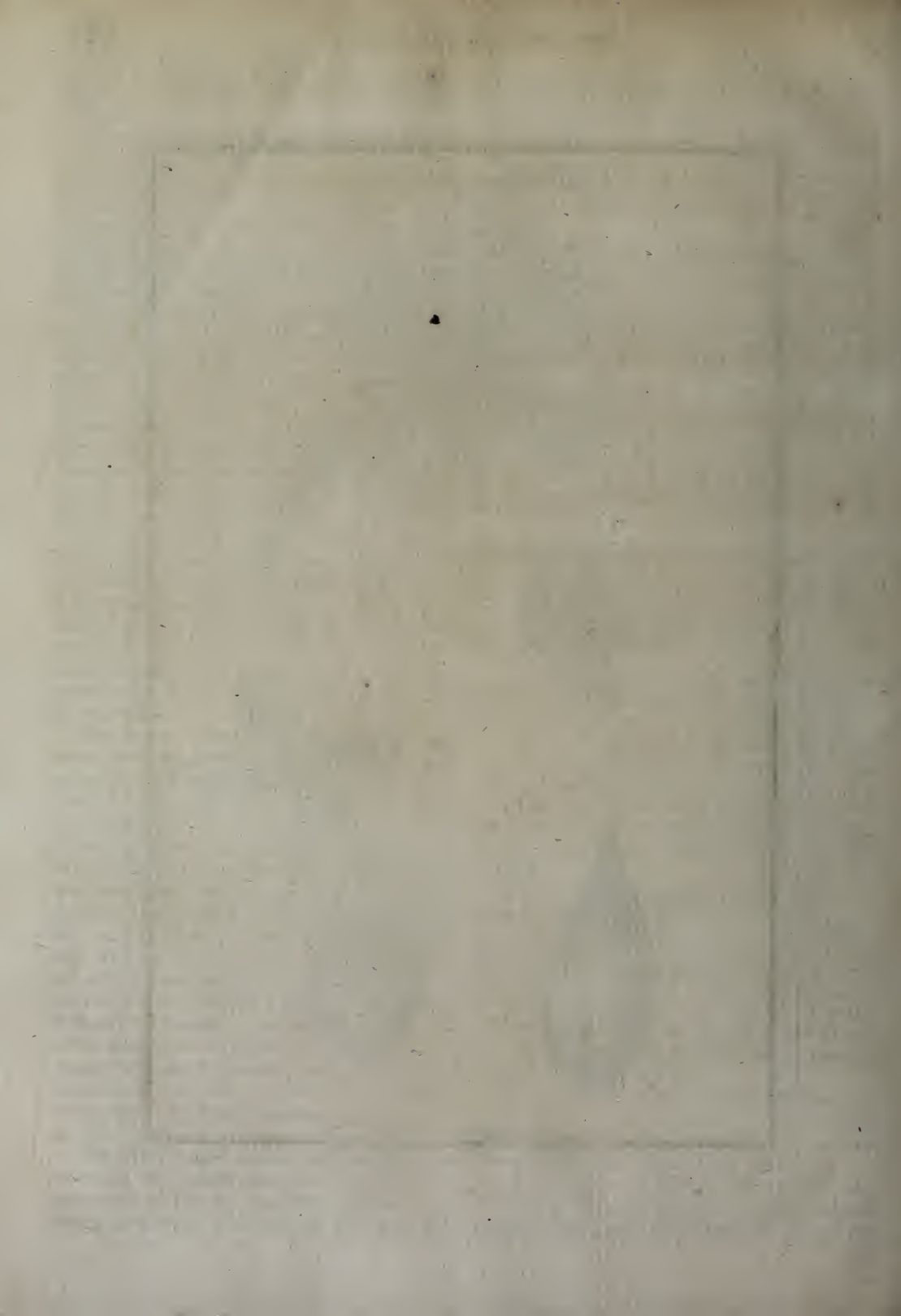
Henry Petry commends the Decoction of white *Water-Lilly* in Wine for the excessive Flux of the monthly Courses. *Dol. lib. 5. cap. 4. § 18.*

We are told, that the *Turks* steep the Flowers of white *Water-Lilly* in Water overnight, with which they anoint their Nose, and thereby fancy they shall be free from any desperate Diseases; the same Effect is produced by drinking that Water. I make a Conserve and a Syrup of the white Flowers, which procure Sleep, but not so powerfully as *Poppy*. *Sim. Pauli.*

The distilled Water of the Flowers is much commended for taking away Freckles, Spots, Sun-burn and Morpew, from the Face or any other Part of the Body.

The *Nenuphar* or *Water-Lilly* reddens the *Turnsol*, yields acid Liquors, a little volatile concrete Salt, and abundance of Oil: This





is the Reason of its being very lenitive and softening; and therefore the Root is used in Pustians for Gonorrhœa's, Heat of Urine, and even for abating the burning Fits of Love. It is diuretick only by abating Inflammations and Sharpness that may stop, diminish or suppress the Urine. *Tauroy.*

The Root of white *Water-Lilly* is somewhat glutinous and bitter, and reddens blue Paper very much. By a chymical Analysis it yields a good deal of Acid and Oil, and but very little volatile concrete Salt; and therefore it is not strange that it is very emollient. The Roots are commonly used in a cooling Pustian for Heat of Urine, and for the Inflammation of the Reins and other Viscera.

The Syrup is a little soporiferous, and is given to the Quantity of an Ounce. *Tournefort.*

Both the white and yellow *Water-Lillies* contain abundance of Phlegm and Oil, and but little Salt. The white *Water-Lilly* is much used in Physick. The Flower and Root are moistning, cooling, and a little narcotick. They abate the too violent Motion of the Humours by their viscous Parts, and are proper for Sharpness of Urine, to sweeten the Blood, for burning Fevers, and for the Rheum, being taken in Decoction. They are likewise applied externally in Inflammations, to soften and supple the Skin, and to procure Sleep. *Lemery.*

SECTION V.

Of Plants with a Rose-Flower, whose Pointal turns to a Fruit, in which the Seeds as it were nestle.

GENUS I.

Nelumbo.

Nelumbo is a Plant differing from *Nymphaea* by the Form of its Fruit, for it is not divided into Cells like the Fruit of *Nymphaea*, but the Seeds nestle in it as it were in a scattering Manner.

There is but one Species of this Plant, which is,

Nelumbo Zeylanicum. *Nymphaea Indica, Faba Aegyptia dicta, flore incarnato.* *Par. Bat.*

TABLE CXL.

GENUS II.

Capparis, Capers.

Capers is a Plant with a Rose-Flower A, consisting of four Leaves B, placed orbicularly: Out of whose Flower-cup C, rises

the Pointal D, furnished with an Embryo, which afterwards turns to a Fruit commonly in the Shape of a Pear E, or filiquous and fleshy, in which do nestle as it were many Seeds G, which are often roundish and shaped like a Kidney.

The Species of *Capers* are,

1. *Capparis spinosa, fructu minore, folio rotundo.* C. B. Pin. 480. *Quickly round-leaved Capers, with small Fruit.* *Capparis spinosa.* J. B. 2. 63. *Capparis retuso folio.* Lob. Icon. 635.

The Antients inform us, That there was nothing more troublesome than the Roots of *Capers*; that spread far and wide. The Shrub it self is furnished with many Cyons, which are armed by crooked Prickles that bend downwards after the Manner of *Brambles*. The Leaves are placed alternately, being exactly round, otherwise gently pointed, about two Inches broad, and much of the same Length, and of a very bitter Taste. Out of the Bosoms of these come forth long single Foot-stalks, on which stand greenish Heads, which coming to open, set to View a white

F f f f

Flower

Flower that resembles a small *Rose*, an infinite Number of curled Fibres possessing the Middle. Much small Seed is contained in an oblong Husk in the Shape of an Olive or Walnut, which *Parkinson* says is hard, brown, and somewhat like the Kernel of a Grape.

It loves sandy and stony Places. Mr. Ray observed it growing wild on the Walls and Ruins at *Rome*, *Siena*, *Florence* and elsewhere in *Italy*; and cultivated about *Toulon*, upon the Walls; for they plant *Capers* in the Holes of Stone Walls made for that Purpose, three or four Foot from the Ground. They gather the full grown Buds of the Flowers before they blow, and leave them scattered in a shady Place for the Space of three or four Hours, till they begin to fade, to hinder their opening. Then they put them into a Vessel and pour Vinegar upon them, covering the Vessel with a Board, and let them remain so covered for eight Days. They again repeat the same Operation, squeezing the Buds, and pouring on fresh Vinegar for the third Time. When this is done, they shut them up in Barrels with Vinegar. Some mix Salt with the Vinegar, which Kind of Pickle is accounted better, and preserves the *Capers* entire and sound for three Years, so that they cannot be distinguished from fresh and new *Capers* either in Colour or Taste.

2. *Capparis folio acuto*. C. B. Pin. 480. Sharp-leaved *Capers*. *Capparis*. Dod. Pempt. 746.

This differs in nothing from the former, except in the Shape of the Leaves, which are pointed.

3. *Capparis Sicula*, duplicatâ spinâ, folio acuto. Bocc. Rarior. Plant. 79. Sicilian *Capers*, with double Prickles, and a sharp-pointed Leaf.

4. *Capparis non spinosa*, fructu majore. C. B. Pin. 480. *Capers* without Prickles, with larger Fruit. *Capparis non spinosa*. J B. 2. 63.

This *Egyptian Capers* differs not much from the former in the Manner of growing, but that the Stalks are bigger and more upright, without any Prickles on them; the Leaves are round, and stand in Couples at the Joints like the former: The Buds are larger, and so are the white Flowers in like Manner,

and the Fruit bigger than any of the former. This loses not its Leaves in *Winter* as the others do; and in these Particulars consist the chief Differences.

4. *Capparis Americana arborescens*, Lauri folio, fructu longissimo, flore albo. Plum. American Tree-Capers, with a Bay Leaf, a very long Fruit, and a white Flower.

Capers is a Plant, the Rudiments of whose Flowers, if I may so speak, are called *Capparen* by the Greeks, Latins and Germans. *Gaza*, the Interpreter of *Theophrastus*, calls it *Inturis*. *Pliny* seems to think it was the *Cynobatos* of *Dioscorides*, because among the bastard Greek Names in *Dioscorides*, *Cynobatos* is one which he says was given to *Capers* in his Time. Some say it is called *Capparis à capite*, because the Buttons of Flowers which grow on this Plant, are shaped like little Heads.

The Bark of the Root is most in Use in the Shops. It warms and dries, and is proper for the Spleen; it is acrid, bitter, somewhat austere; and therefore cutting, opening, cleansing and somewhat astringent. It is proper in the Diseases of the Joints, in Hypochondriacy, and the like. The Flowers pickled are thought to be hurtful to a weak Stomach; but on the contrary are good for the Liver and Spleen, by opening their Obstructions. *Schrod.*

Dominicus Chabreus says, That the Study of pleasing our Taste imposes upon our Reason at the Expence of our Health. For the Taste which we perceive in them, is borrowed from the Pickle and the Vinegar. They have but little Substance, and little Juice, &c. But the Substance of the *Capers* pickled with Salt and Vinegar is hard of Digestion, but not the Decoction of them, which produces that Effect which is commonly attributed to *Capers*.

The compound Oil of *Capers*, administered either internally or externally, is of wonderful Efficacy in the Obstructions of the Viscera.

The Buds thus pickled, as described above, are brought to us from beyond Sea, and are very frequently used for Sauce both for roasted and boiled Meat, and also for Fish. They sharpen the Appetite, and provoke Concoction, and are good for opening



Sedum . House-leek .



opening the Obstructions of the Liver and Spleen.

Lobel, in his *Adversaria*, prefers the large *Capers*, tho' cheaper, to the small *Capers*, tho' dearer; because the larger Sort drink in less of the Pickle, &c. I do not well know what he calls the larger *Capers*; but it is probable he means that Sort of *Capers* mentioned by *Parkinson*. But of late years we rarely or never use that Sort in *England*, and therefore they are not any longer imported to us. And how much soever *Lobel* and others declaim against the Use of pickled *Capers*, yet I find them no less proper for the Stomach than they are grateful to the Palate, nor have I ever found any Hurt by the daily Use of them, or heard that others have.

What *Pliny* writes, if true, is very remarkable, viz. It is reported, says he, That they who daily eat *Italian Capers* are in no Danger of the Palsy, or of the Diseases of the Spleen. *Dioscorides* affirms, That the Fruit of *Capers* resolves the Spleen, if two Drams of them be drunk with Wine for forty Days

successively. They likewise cure the Pain and Resolution of the Hips, as well as Ruptures and Convulsions. They bring down Womens Terms, and clear the Head from Rheum. Boiled with Vinegar and used as a Gargle to wash the Mouth, they cure the Tooth-ach.

The Bark, especially of the Root, performs all the same Things, according to the Testimonies of *Dioscorides* and *Galen*, viz. it cures the Hardness of the Spleen beyond any other Remedy whatsoever, either taken inwardly or applied outwardly; it provokes the Terms, cleanses and dries Ulcers. It is said to be proper for the Sciatica, and the Diseases of the Joints. Applied with Vinegar it likewise cures and dissolves the Morpew, Wens and Kernels, and digests hard Tumours, being mixed with Medicines proper for those Purposes.

Capers and the Bark of *Capers* contain some urinous Spirit, some acid Phlegm, Oil and lixivial Salt. They move the Urine gently, but they are exceeding good for hypochondriack Melancholies. *Taury*.

SECT. VI.

Of Plants with a Rose-Flower, whose Pointal turns to a Fruit composed as it were of many Cells.

TABLE CXLI.

GENUS. I.

Sedum, House-leek.

House-leek is a Plant with a Rose-Flower A C, consisting of many Leaves B D, placed orbicularly: Out of whose Flower-cup F G, rises the Pointal E H, which afterwards turns to a Fruit I K, composed as it were of many Seed-vessels L M, resembling Husks which are collected into a Sort of Head, and full of Seeds which are generally small N.

The Species of House-leek are,

1. *Sedum majus, arborescens.* *F. B.* 3. 686.
- Tree-House-leek. Sempervivum, sive Sedum arborescens, majus.* *Dod. Pempt.* 127.

This is a Shrub rather than an Herb, being sometimes two Cubits high, and as thick as one's Arm, putting forth many Branches as thick as one's Thumb or better, which are again divided into many smaller Branches about the Thickness of one's Finger, ending at top as it were in a round Head, which consists of many Leaves that lie upon one another very close and like Tiles, in the same Manner as in the common *House-leek*. These Leaves are fleshy, full of Juice, and shaped like a Tongue, i. e. they dilate themselves

gradually from the Root; they are so gently dented round the Edges with little fine thick-set Teeth that they are scarce discerned, and have a somewhat astringent Taste. The whole Shrub is covered with a thick, fleshy and juicy Bark, whose outer Film is brownish, and full of Spots or rather Vestiges of the Bottoms of the Leaves, as in the *Tithymalus characia*. Sometimes there shoots forth a thick and as it were leafy Foot-stalk on the Tops of the greater Branches, bearing something like a *Thyrus* or Bunch of many Buds which in Time open into Flowers of a pale yellow Colour, divided into several Leaves in the Fashion of Stars, with their *Stamina*. When the Flowers begin to fade, and hasten to the Formation of the Seed, this Foot-stalk begins to dwindle. The Seed is small and black. This Plant is an Ever-green, for before it casts its old Leaves, it always produces new ones, and is easily propagated by Slips.

Clusius saw this Species growing wild on a rugged and craggy Hill not far from the Royal Castle of *Scytzi*, five Miles from *Lisbon*; and Mr. *Ray* observed it in Pots in many Places in *Italy*.

Clusius is of Opinion, That any one that is but moderately skill'd in *Botany* must be convinced, that this is the true *Sedum* or greater Evergreen of *Discozides*: For that which was till that Time accounted the greater Evergreen, was nothing else but the *Cotyledon altera* of *Discozides*.

2. *Sedum majus, vulgare*. C. B. Pin. 283. J. B. 3. 687. *Sempervivum majus alterum* five *Jovis Barba*. Dod. Pempt. 127. Common House-leek.

It puts forth Leaves next to the Ground and the Roots, which are thick and fat, full of clammy Juice. Sharp-pointed, thick-set, even round the Edges, and disposed circle-wise in the Shape of an Eye; and producing several such Balls, it spreads it self very wide all around, and often puts forth small Fibres, by which it spreads wider, and produces new Balls. In the middle of these there rises sometimes a Stalk about a Foot high, upright, thickish, and covered with the like but narrower and shorter Leaves like Scales, and opening at top into bending Branches. It bears climbing Flowers which succeed one another in a certain Series, and are Star-

fashioned, reddish or of a dark purple Colour, consisting of many Leaves; to which succeed many Pods or little Horns full of very small Seed, and ranged in a Circle.

It grows wild among Stones and Rocks, and upon Dikes and Walls. It is not to be seen wild any where in *England*, but is sown every where upon Houses, old Walls and Tiles. The Stalk bears Flowers after the *Summer Solstice*; and withers in the *Autumn*, after it has perfected the Seed.

3. *Sedum vulgari magno simile*. J. B. 3. 688. House-leek resembling the great common House-leek.

4. *Sedum vulgare maximum*. H. L. Bat. The greatest common House-leek.

5. *Sedum latifolium, floribus magnis albicantibus*. J. B. 3. 689. Broad-leav'd House-leek, with large whitish flowers. *Sedum majus, montanum, dentatis foliis*. C. B. Pin. 283. *Cotyledon altera, secunda*. Clus. Hist. 63. This is the *Sedum majus, alterum*, five *Atlante* of *Parkinson*, but what he means by *Atlante* I do not understand.

It has many thick and fat Leaves, growing close together about the Root, and resembling the *Acetabulum alterum* five *sempervivum vulgare majus*, but smaller, and gently dented round the Edges, succulent, and of an acid Taste; among which there are many Heads, quite around, which are composed of the like but smaller Leaves, standing upon long Footstalks, which growing bigger by degrees, at length form themselves into new Plants. Out of the very Navel of the Mother springs up the Stalk, which is nine Inches high, leafy, upright, bearing on the Branches a large whitish Flower consisting of six Leaves, and resembling the *Cotyledon alter*; to which succeed Pods or Seed-vessels parted into as many Angles, and full of small Seed. The Root is like the great common *Sempervivum*, but not quite so thick, whitish, and then putting forth new Plants, besides those already mentioned, at the Sides.

It grows in great abundance on all the Hills in the Neighbourhood of *Vienna*, and on the Mountains of *Austria* and *Stiria*. It flowers in *July*.

6. *Sedum majus montanum, dentatis foliis, alterum*. C. B. Pin. 283. Another great mountain House-leek, with dented Leaves.

Sedi latifolii, flore albicante minor Species magis dentata. J. B. 3. 689. *Cotyledonis alterius altera Species.* Clus. Hist. 64.

This Species differs in nothing from the former, except that it is smaller in all its Parts, and the Leaves are more dented.

7. *Sedum majus, montanum, foliis non dentatis, floribus rubentibus.* C. B. Pin. 283. The greater mountain House-leek, with undented Leaves, and reddish Flowers. *Sedum montanum, latifolium, flore purpureo.* J. B. 3. 688. *Cotyledon altera, tertia.* Clus. Hist. 64. This is the *Sedum majus, angustifolium* of Gerarde and Parkinson.

This Species has also many Leaves crouted together, thick and fat, and growing in a Ball, but smaller than the former, and not dented round the Edges, although they seem to be somewhat bristly; under which other like Plants furnished with thick Fibres propagate themselves in a Circle, and send down Roots. Out of the Navel of the Mother comes forth a Stalk which is a Palm and sometimes nine Inches high, succulent, reddish, begirt with many thick, pointed Leaves full of Juice, which are narrower than the former, and have a purplish Point, which on the upper Part is divided into little Branches, that are loaded with many Flowers resembling in Shape the Flowers of the *Cotyledon alter*, but smaller, and consisting of twelve narrow, pointed, cross Leaves in Form of a Star, of a red purplish Colour; and succeeded by as many Pods compacted into a Head or as it were a Crown, which possesses the Middle of the Flower, with 24 *Stamina* surrounding it. The Seed which is in these little Pods or Cells is so very small, that it almost escapes the Sight. The Root is pretty thick and fibrous, like that of the *Cotyledon alter*.

8. *Sedum montanum, tomentosum.* C. B. Pin. 284. Mountain flocky House-leek. *Sempervivum rubrum, montanum, yvapadades.* Col. Part. 1. 291.

This rare House-leek in the Autumn and Winter has hoary or ash-coloured Heads of Leaves, which are smooth, plain and open like the ordinary Sort; but when the Spring comes, it grows overspread with a Number of hoary or woolly Threads like a Net, drawing the Leaves together, and presenting several Figures, as Triangles, Quadrangles,

Quinquangles, Sexangles, &c. the Leaves themselves being smaller and longer than the ordinary Sort, but thick and fleshy. In Summer, when the Stalk rises to be half a Foot high, they grow pointed up Pyramid-fashion, thick covered with that Flox. Upon the Stalk are set many smaller and narrower Leaves up to the top, which parts in two, bearing on each sundry large spread Flowers, of a deep red rose Colour, ending in ten Points, as if it were so many Leaves, having twenty *Stamina* or Threads in the middle tipped with yellow Chives; standing about the middle Boss or Knob, which turns to the Seed-vessel; and each Flower is set in a pale hairy Husk, which is also pointed; but before they open to be like a Star, they are plaited into ten Plaits, each Plait or Fold being of a deeper Colour. The Root is very small and fibrous, and forces its Way into the Chinks of rocky and stony Places, where scarce any Earth is to be found.

9. *Sedum montanum, tomentosum, minus.* Small, mountain, flocky House-leek. *Sedum montanum, roseum, reticulatum.* Bar. Icon.

10. *Sedum Alpinum, roseum, acuto folio, hæmatodes, majus.* H. R. Par. Great, scarlet, mountain, Rose House-leek, with a pointed Leaf.

11. *Sedum Alpinum, roseum, medium, aculeo rubente.* H. R. Par. Middle, mountain, Rose House-leek, with reddish prickles.

12. *Sedum Alpinum, roseum, minus, viride & subhirsutum.* H. R. Par. Small, green and somewhat hairy, mountain, Rose House-leek.

13. *Sedum Alpinum, subhirsutum, folio longiore.* H. R. Par. Mountain House-leek, somewhat hairy, with a longer Leaf.

14. *Sedum Alpinum, subhirsutum, corona floris purpurascente, disco viridi.* H. R. Par. Mountain House-leek, somewhat hairy, with the Borders of the Flowers of a purplish Colour, and the Hollow of them green.

15. *Sedum minus, teretifolium, album.* C. B. Pin. 283. Small, taper, or round-leaved white House-leek. *Sedum minus, folio longiusculo, tereti, flore candido.* J. B. 3. 690.

Vermicularis, *Crassula minor officinarum*, & *Illecebra major*. This is the *Vermicularis flore albo*. Park. *White-flower'd Stonecrop*.

This small *Stonecrop* or *Prickmadam* has small long Leaves set upon short Stalks; which Leaves are like the fat Maggots that breed in rotten Cheese, and thus got the Name of *Vermicularis*; they grow in an alternate Order upon Stalks a Span or nine Triches long, being of a dark green Colour, or marked with many Spots. The Flowers grow thick as it were in an Umbella, being Star-fashioned, consisting of five Leaves that are white on the Inside, with many black purple Chives surrounding a white Navel shap'd like a Cone. The Root is small and fibrous.

It is frequently to be met with on old Walls and Houses; and bears Flowers in the Summer Months.

16. *Sedum teretifolium*, majus, flore albo. Mor. H. R. Bles. Greater, round or taper-leav'd House-leek, with a white flower.

The Leaves of this are like the former, but more thick-set and growing closer on the Stalk; also growing on Walls and Houses, but not so common as the former, lying flat and then supporting it self by its Fibres.

17. *Sedum minus teretifolium*, alterum. C. B. Pin. 283. J. B. 3. 691. Another small, taper-leav'd House-leek. *Sedum medium, teretifolium, sive Sempervivum minus officinarum*. Lob. Icon. 376.

18. *Sedum minus, teretifolium, luteum*. C. B. Pin. 283. Small, taper-leav'd, yellow House-leek. *Sedum minus, astivum, luteum*. J. B. 3. 693. *Sempervivum minus, astivum*. Lob. 370.

19. *Sedum minus, folio circinato*. C. B. Pin. 283. Small, round-leav'd House-leek. *Sedum parvum, folio circinato, flore albo*. J. B. 3. 691. *Aizoon Dasphyllum Dalechampii*. Lugd. 1133.

This Species has a short, fibrous, pale and slender Root, which thrusts itself into a small Portion of Earth, and into the Holes of Walls. It has a great many Branches four Fingers high, which are very thick-set. It has a vast Number of thick, round, whitish or grey Leaves, which grow very close together, of an insipid Taste, with some gentle Astringency. The Flowers on the small

Rods are white and numerous. The Seed is very small and reddish.

It grows in great plenty on Walls and Rocks about Montpelier, Geneva and Lions.

7. *Baùhinus* and *Chosius* compare the Leaves of this to the Leaves of the small biting House-leek, than which they are somewhat thicker and whiter.

20. *Sedum minus, luteum, folio acuto*. C. B. Pin. 283. Small, yellow, sharp-leav'd House-leek. *Sedum minus, flore luteo*. J. B. 3. 692. *Aizoon Hematodes*. Lob. Icon. 378.

21. *Sedum minus, lato & crasso caule*. *Portlandicum Belgarum*. H. R. Par. Small, Portugal House-leek, with a broad and thick Stalk. *Portlandicum Sedum*. Lob. Icon. 380. *Sedum monstrosum, minus vel platycaulon*. H. R. Monsp.

22. *Sedum minus, luteum, ramulis inflexis*. C. B. Pin. 283. Small yellow House-leek, with Branches bending inwards. *Sedum minus, luteum, flore se circumflectente*. J. B. 3. 693. *Aizoon Scorpioides*. Lob. Icon. 377.

23. *Sedum longifolium, citrino flore*. Mor. H. R. Bles. Long-leav'd House-leek, with a Citron Flower.

24. *Sedum arvense, flore rubente*. C. B. Pin. 283. Prodr. 132. Field House-leek, with a reddish Flower.

25. *Sedum parvum, acre, flore luteo*. J. B. 3. 694. Small, biting House-leek, with a yellow flower. *Sempervivum minus, vermiculatum, acre*. C. B. Pin. 283. *Sedum minus octavum causticum*. Clus. Hist. 61. This is the *Vermicularis sive Illecebra minor acris* of Gerarde; and the *Illecebra minor sive Sedum tertium Dioscoridis* of Parkinson. Wall. Pepper.

This is almost the smallest of all others, and grows like the Field House-leek, with very many slender Stalks, and small round Leaves thick-set upon them; at the Tops whereof grow small pale yellow Flowers in Tufts as the others do: The Root in like manner creeps about, sending forth many Stalks, which, as they lie along upon the Ground, take Root and spread far and wide. The Taste of this Plant is very bitter and hot upon the Tongue, which chiefly distinguishes it from all the rest; though it may also

also be distinguished by the Form, being small, and thick-set with round Leaves.

26. *Sedum minimum, luteum, non acre.* *J. B. 3. 695.* The smallest, yellow, insipid House-leek. *Sempervivum minus, vermiculatum, insipidum.* *C. B. Pin. 284.* This is the *Illecebra insipida.* *Park.* Unflavoury Wall-pepper.

This Species is as small as the last, growing altogether like it in Leaf, Stalk and Flowers, and being also yellowish; but is distinguished from the other only by the Taste, which in this is nothing biting, but utterly unsavoury. *Park.*

Cordus describes it thus: The Stalks and Leaves of this Plant are much slenderer and smaller than in the former: It has little Flowers like those of the other, with five small tip Chives in the Middle that bear the Seed, and these surrounded by ten *Stamina*; but not constituting an Umbell or Head like those of the other, but come forth in an alternate Order upon little Branches an Inch long growing upon the Stalk.

27. *Sedum minimum, non acre, flore albo.* *Raii Hist. 1041.* The smallest, insipid House-leek, with a white Flower.

Mr. Ray is in doubt, whether it differs from the former in any other Respect than in the Colour of the Flower; because he had not carefully compared them together. He observed this Plant growing in great abundance on the barren Grounds in *Suffolk*, the whole Road betwixt *Tarmouth* and *Dunwich*; and says, that it abounds no less on the Rocks in *Westmorland* and *Lancashire*, near the Lake called *Winandermere*.

28. *Sedum Alpinum, flore pallido.* *C. B. Pin. 284.* Mountain House-leek, with a pale Flower. *Sedum parvum, montanum, luteum.* *J. B. 3. 693.* *Sedum minus, bium sive Alpinum, primum.* *Clus. Hist. 60.*

It sends up one or more Stalks a Palm high, and sometimes shorter by one half, and cloathed with many thick-set Leaves, which are not quite so sharp pointed as those of the common yellow House-leek, and more plain; and Leaves of the same Sort grow at the Root of the Stalk, and spread along upon the Ground: The Stalk it self is divided into a good many thick-set Branches, which bear very beautiful and pretty large Flowers, which are of a somewhat pale yel-

lowish Colour, consisting of five Leaves, with yellow Chives. The little Roots wander on the Surface of the Earth, and produce new Plants. It is of a very drying Taste.

It grows on Mount *Baldo*, Mount *Pilato*, and *Gothardo*. *Clusius* writes, That it grows on *Sneberg* and other Mountains of *Stiria*, on Mount *Taurus* and *Judenberg*, where it flowers about the End of *July* and in *August*. *D. Magnol* found it in flower in the Month of *July* on the Declivity of the Hill called *Capoladon à las Cambrettes* not far from *Montpelier*.

29. *Sedum Alpinum, rubro, magno flore.* *C. B. Pin. 284.* Mountain House-leek, with a great red Flower. *Aizoon montanum.* *Lugd. 1131.*

This red flower'd House-leek has many small, narrow and long Leaves lying on the Ground, among which rises up a Stalk about three or four Inches high, with a few Leaves on it, being longer and more pointed than those below, and bearing at top several large Flowers consisting of many narrow and pointed Leaves Star-fashion, of a reddish Colour and yellow at the bottom, with a white Line at the bottom of each Leaf, which are of a sweeter Smell than in any other Sort.

30. *Sedum palustre, subhirsutum, purpureum.* *C. B. Pin. 285.* Purple and somewhat hairy marsh House-leek. *Sedum purpureum, pratense.* *J. B. 3. 692.* *Sedum minus, trium sive palustre.* *Clus. Hist. 59.*

31. *Sedum echinatum vel stellatum, flore albo.* *J. B. 3. 680.* Whickly or Star-fashion'd House-leek. *Coryledon stellata.* *C. B. Pin. 285.* *Sempervivum tertium.* *Col. Phytol. 42.*

32. *Sedum echinatum, flore luteo.* *J. B. 3. 680.* Whickly House-leek, with a yellow Flower.

33. *Sedum cepæa dictum.* *H. L. Bar. Cepæa.* *J. B. 679.* *Cepæa Matthioli.* *Clus. Hist. 68.*

This Species spreads upon the Ground succulent Leaves like *Purslane*, but smaller and roundish. It puts forth a Stalk nine Inches long, which lies upon the Ground, and is divided into many Branches, at each Wing of which grow Leaves like the former but narrower, oblong and roundish at the End. Several Flowers are gathered upon Foot-stalks an Inch long from the middle to the

the top of the Stalk, but at the same time rest upon their own proper Foot-stalks, being small, whitish, and consisting of five Leaves; to which succeed small Heads full of small Seed like Filings. It is an annual Plant, renewing it self every Year from the fall Seed.

It is said to grow wild about *Montpelier* and *Geneva*.

34. *Sedum Cepaea dictum*, floribus purpurascens. *House-leek* called *Oxpine*, with purplish Flowers. *Cepaea floribus ex purpureo candicantibus*. C. B. Pin. 288.

35. *Sedum minimum*, montanum, flore purpurascens, parvo, semine stellato. *Raii Hist.* 692.

This Species has a small white Root, furnished with many Fibres, and scarce lives above a Year. From the same Root rises sometimes one and sometimes more Stalks (three or four) which are half a Palm long, upright, round and reddish, clothed with very thick-set Leaves, which are placed quite around without any Order, thick, roundish, short, with very blunt reddish Points. They bear Flowers on the top, which are ranged as it were into an Umbell, and are small, five-leav'd, scarce blowing, the Leaves being sharp, and a deep purple Line running along the Middle lengthwise, and more pale at the Edges. The Seed-vessels are divided into five Parrs, Star-fashioned, with pricking Rays.

Mr. Ray found this Plant flowering about the Middle of *July* on the craggy and high Rocks of *Mount Jura*.

D. Magnol found and described a Plant not much unlike this, in his *Index of Plants* that grow about *Montpelier*, under the Title of *Sedum annuum, minimum, stellatum, rubrum*. It is a small Plant, says he, an Inch or two Inches high, generally rising but with one single Stalk. The Leaves are thick and roundish, among which rise whitish Flowers which are pretty big for the Size of the Plant, to which succeed little stiff thick-set Stars, in which is contained small Seed. It is an annual Plant.

The Author of the Description often found it with its Flower and little Stars in the Month of *May*, in the Entry into the Grove of *Grammont*, under the Oaks.

36. *Sedum Alpinum*, *Coridis folio*. *Mountain House-leek*, with a fair Heath low Pine Leaf.

37. *Sedum Africanum*, fruticosum, *Ericæ folio*. *Olden*. Shrub African *House-leek*, with a Heath Leaf.

38. *Sedum Creticum*, saxatile, latifolium, flore purpurascens. *Broad-leav'd*, *Rock House-leek* of *Candy*, with a purplish Flower.

39. *Sedum Creticum*, saxatile, latifolium, villosum. *Broad-leav'd*, *rock*, downy *House-leek* of *Candy*.

40. *Sedum orientale*, teretifolium, villosum. *Taper or round-leav'd*, downy, *oriental House-leek*.

41. *Sedum orientale*, minus, album, folio acuto, lanuginoso. *Small*, white, *oriental House-leek*, with a sharp downy Leaf.

42. *Sedum orientale*, latifolium, flore magno & viridi flavescens. *Broad-leav'd* *oriental House-leek*, with a large Flower of a greenish yellow Colour.

43. *Sedum orientale*, minus, folio acuto, flore albo. *Small oriental House-leek*, with a sharp Leaf, and a white Flower.

44. *Sedum montanum*, lignosum, dasyphyllum. *Mountain*, *ligneous House-leek*, with thick-set Leaves.

45. *Sedum stellatum*, annuum, longiore folio. *Annual Star-fashioned House-leek*, with a longish Leaf.

This Genus is called *Sedum* either à *Sedendo*, because it sits as it were upon the Tops of Houses and Walls, where it commonly grows; or à *Sedando*, because it eases Pains and Inflammations. It is called *Semprevivum*, because it preserves it's Greenness and Verdure in *Winter* as well as in *Summer*. And the French call it *Foubarbe*, which comes from *Jovis Barba*, by which Name it was formerly called. *Pliny* says, It was called *Bupthalmum*, *Zoophthalmum*, *Steigethron*, and *Hypogeson*; and some also called it, as he says, *Oculus*, and *Digitellus*. *Apuleius* calls it *Vitalis*, and *Jovis Barba*. In *English* we generally call it *House-leek*; tho' some call it *Sengreen*, and *Aigreen*; and others again *Jupiter's-eye*, *Bullock's-eye*, and *Jupiter's-beard*.

The second Species is most in Use, tho' the rest are not without their Vertues. It is used cooling, astringent and thickening. It is used chiefly

chiefly inwardly in bilious Fevers; for it quenches Thirst, and allays the burning Heat. It is used externally in the Squinſy. *Schrod.*

It is an ordinary thing for our common People to give the Juice of it with Sugar, for Fevers and other hot Diſeaſes. *Id.*

The Preparations made of it are: 1. Water diſtilled from the Leaves. 2. The Juice preſſed from the Leaves; which are commonly given in malignant and bilious Fevers.

The diſtilled Water of this Plant, and the Syrup prepared from the Juice are very properly given in burning and bilious Fevers, the Angina or Squinſy, &c.

For a deſperate Squinſy take the following Gargarism: Take of the fresh Leaves of *Houſe-leek* four Pounds, of *Sal ammoniac* an Ounce and a half, bruise them and put them into a Cucurbite of Glaſs in a ſubterraneous Vault, till the Salt melts; diſtill them in an Alembick till they are dry; the Diſtillation is to be repeated, or at least an Infuſion on Aſhes; and make a Gargle of this when it is requiſite. This ſame great *Houſe-leek* or *Evergreen* bruised and mixed with Womens Milk and laid on the Forehead, wonderfully allays a Phrenzy and procures Sleep; but as ſoon as the Patient begins to ſleep, it muſt be taken off, for fear leſt he ſhould fall into a Coma or continual Sleep. *Hoffman.*

Our *Botaniſts* preſcribe the Juice of *Houſe-leek* infuſed in Poſſet; and *Dr. Tancred Robinſon* ſays, he knows it to have been given in this Manner with good Succeſs, in Fevers, but eſpecially in ſpotted and hectic Fevers; for this Plant abounds with a medicinal alkaline Salt.

Tragus writes, That the Juice or diſtilled Water of *Houſe-leek* is very good in any Inflammations of the Body whatſoever; but eſpecially in the Phrenzy, in the Inflammation and Redneſs of the Eyes, the Liver and the Reins, dipping a linnen Cloth in it, and laying it upon the Part affected. The ſame alſo cures the Diſeaſes of the Joints, and eaſes Burnings.

The Juice rubbed upon Warts and Corns till ſuch time as they are well moiſtened with it, and then the outer Membrane or Film of the Leaves laid upon them, takes them away and heals them.

For the Corns of the Feet, Take of the Leaves of *Houſe-leek* a ſufficient Quantity, and lay them upon them for ſix Days ſucceſſively. *Cheſneau.*

For the Ulcers of the Womb and Urethra, Take of the Juice of *Houſe-leek* 4 Ounces, of *Litharge* 1 Ounce, and two Yolks of Eggs; beat them long together in a leaden Mortar, and keep the Composition for Uſe. This was the Remedy of a certain Surgeon at *Paris*. *Id.*

The 22d Species is uſed in Sallads in many Places, according to *J. Baubinus*, in which it taſtes well, and is agreeable to the Palate. It ſeems to agree with the great common *Houſe-leek* both in Temperament and Properties, and may be uſed inſtead of it, if it be neceſſary.

Dr. Below found the wonderful Vertues of the 27th Species in curing the Scurvy to which Armies are ſubject, with incredible Succeſs, both internally in Decoctions, and externally applied in Contractions of the Members, in Ulcers, and in rotten Gums. *Ephem. Germ.* 6. and 7. *Obſ.* 22. *Mr. Ray* had this Obſervation from *Dr. Tancred Robinſon*, as alſo from *Dr. Palmer*.

Of the 25th Species *Mr. Tournefort* ſays, That in this Plant it would ſeem that the acid Part of the natural Salt of the Earth, has conveyed a corroſive Salt into it's Texture, much of the Nature of the Spirit of Nitre, intolded in and ſoftened by Sulphur.

Houſe-leek analyſed yields Abundance of Acid, Abundance of Earth, and very little volatile concrete Salt. It is probable that it contains a Salt much of the Nature of Allum mixed with a little *Sal ammoniac*; for the Juice of this Plant evaporated away one half, exhales an urinous Smell. *Houſe-leek* is deterſive and aſtringent, and is ſometimes uſed to reſolve, but it is repercuffive. For the Squinſy, you muſt make the Patient gargle with the diſtilled Water of this Plant, and apply to his Throat the *Aſtacus fluviatilis* pounded with its Leaves. A Gargarism of the Juice of the ſame *Aſtacus* and of *Houſe-leek* is alſo uſed with Succeſs: Theſe Juices are uſed by way of Injection in the falling down of the Womb, and in cavernous Ulcers. The Leaves of this Plant are applied to Corns in the Feet, and to the Nodes of the Gout.

There is nothing better for a foundered Horse than to make him drink a Quart of the Juice of this Plant. *Tournefort.*

GENUS II.

Anacampteros, *Dypine*, or *Lide-long*.

O *Dypine* is a Plant with Flower and Fruit like those of *House-leek*, from which it differs, in the Judgment of the famous Mr. Ray, in that it runs up into Stalk from it's first budding; whereas the Leaves of *House-leek* are gathered into Balls resembling Oxes Eyes.

The Species of *Dypine* are,

1. *Anacampteros vulgo Faba crassa*. *J. B.* 3. 681. *Telephium vulgare*. *C. B. Pin.* 287. *Telephium alterum* *sive Crassula*. *Dod. Pempr.* 130. Common *Dypine*.

This Species is about a Foot high, with upright, round, solid Stalks, on which are stretched very thick-set, upright, succulent Leaves that are longer than *Purslane* Leaves, of a grey Colour, mixed with some Tincture of Red, and dented. The Stalks are divided at top into small Branches, on the Tops of which stand reddish Flowers collected into Umbells, and consisting of five Leaves with many *Stamina*. The Middle of the Flower is possessed by several little Bags, which contain generally five Seeds that are hardly discernable for Smalness. The Root is made up of glandulous Knobs, from whence it received the Name of *Faba inversa*. It is not remarkable either for Smell or Taste.

The Leaves are sometimes whole and not dented, the Flowers frequently white, as *J. Baubinus* describes them, though with us they are often purple: And this is the *Telephium 3rium purpurascens flore*. *Clus. Hist.* who makes it to have but thin-set Leaves upon the Stalk.

It grows chiefly in Shades and Hedges, tho' it is often to be found also in Fields and Pastures.

2. *Anacampteros purpurea*. *J. B.* 3. 682. Purple *Dypine*. *Telephium purpureum, majus*. *C. B. Pin.* 287. *Telephium floribus purpureis*. *Lob. Icon.* 389.

This *Orpine* differs but little from the last in the Manner of growing, but that the Stalks are more flexible and feeble, and the Leaves, which stand without Order, are more finely dented about the Edges; and the Tufts of Flowers at the Tops of the Stalks are of a reddish purple Colour, consisting of five small Leaves each, as in the former. The Root is also tuberos like the former for the most part. *Clus. Park.*

J. Baubinus makes it to have an upright and stiff Stalk; and says, the Leaves are narrower and longer than in the former, and of a more faint green Colour; and the Flowers reddish, as are also the *Stamina* and Chives.

3. *Anacampteros minor, purpurea*. The smaller purple *Dypine*: *Telephium purpureum, minus*. *C. B. Pin.* 287. *J. B.* 3. 682.

This seems not to differ from the former, except only in the Smalness of all its Parts; and that the Stalks with all the Leaves utterly perish every Year to the Root, which sendeth up new Branches.

4. *Anacampteros maxima*. *J. B.* 3. 682. The greatest *Dypine*. *Telephium latifolium, peregrinum*. *C. B. Pin.* 287. *Telephium primum*. *Dod. Pempr.* 130. This is the *Telephium sive Crassula major Hispanica*. *Park.*

This Species has two, three, or more Stalks a Cubit high, full of Juice, and inclining to one Side; on which are set Leaves in Order, *i. e.* in Pairs at Distances, always growing on Foot-stalks opposite to one another, thick, full of Sap as in the greater common Sort, but larger and more fleshy. The Flower grows on the Tops of the Branches as it were Umbell-fashion, as in the *Crassula major*, and is pale. It has many thickish glandulous Roots as in the common *Orpine*.

It grows in some shady Places in Spain, from whence being brought to Holland, it easily took Root and grew bigger; for it is so very lively, that the Slips thrust into the Ground immediately take Root.

It grows sometimes with white and even red Flowers.

5. *Anacampteros minor, rotundiore folio, sempervirens*. *J. B.* 3. 682. Small, evergreen *Dypine*, with a rounder Leaf. *Telephium repens, folio deciduo*. *C. B. Pin.* 287. *Telephium minus, sempervireum*. *Lob. Icon.* 390. This is the *Telephium minus repens sive Cypripedium*. *Park.*

There

There is this Difference betwixt the common *Orpine* and this Species, that this is not only smaller, but that the Roots are fibrous like the *Sedum vermiculare*, and not tuberous. The Leaves are no less thick-set, but do more resemble the Leaves of *Purslane* except in their grey Colour, and their almost exact Roundness; and very easily fall, so that the greater Part of the Stalk is seen naked after they have fallen, but still retaining the Marks of the Leaves. The Stalks are slender, round, somewhat reddish, creeping upon the Ground, and nine Inches long. The Flowers grow Umbel-fashion, as in the common *Orpine*, each of which consists of five little Leaves of a whitish-purple Colour; but the Chives are yellow; but in the Middle of the Flower there meet five of them which resemble the pointed Bud of a *Rose*.

It is green the whole *Winter*; and easily propagates it self.

6. *Anacampteros minor*, longiore folio, sempervirens. Small, evergreen *Dypine*, with a longer Leaf.

7. *Anacampteros radice, rosam spirante*, major. Greater *Dypine*, with a Root smelling like a *Rose*. *Rhodia radix*. C. B. Pin. 286. J. B. 3. 683. Dod. Pempt. 347. *Rosewort*, or *Rose-root*.

It has a tuberous Root, which they call *Rhodia* because of its rosey Smell and Taste, and is of a shining brown Colour, white within, brittle, breathing a rosey Smell, and having a Taste like a *Rose*, and pretty much astringent. From one Root rise several slender Stalks that are thick-set with a great Croud of Leaves, of the same Substance and placed in the same Order as the Leaves of the common *Orpine*, narrow, oblong, pointed, and dented quite round, of a grey Colour, excepting the purplish Point, and of an astringent Taste. The purple Flowers grow Umbel-fashion, to which succeed oblong Pods that bend outwards, like the Horns of *Columbine* or *Nigbbskade*, which are reddish, and in which is contained very small, oblong, chaffy Seed.

It grows in the Clefts of the Rocks and the rugged Parts of the Mountains of *Wales*, *Yorkshire*, *Westmorland*, &c. viz. *Snowdon*, *Caderidris*, *Ingleborough*, *Hardknott*, &c.

8. *Anacampteros radice Rosam spirante*, minor. Smaller *Dypine*, with a Root

smelling like a *Rose*. *Rhodia radix minor*. H. R. Par.

9. *Anacampteros Lusitanica, hæmatodes, maxima, flore albido*. The greatest red Portuguese *Dypine*, with a white Flower. *Telephium Lusitanicum, hæmatodes, maximum, flore pallido*. H. R. Par.

10. *Anacampteros Portulacæ folio*. *Dypine* with a *Purslane* Leaf. *Telephium Portulacæ folio*. Mor. H. R. Blef.

11. *Anacampteros flore purpurascente & foliis rarioribus*. *Dypine* with a purplish Flower, and thin-set Leaves. *Telephium flore purpurascente & foliis rarioribus*. C. B. Pin. 287. *Telephium tertium, purpurascente flore*. Clus. Hist. 66.

It is not much unlike the common *Orpine*; only the Leaves are not so thick-set, and the Flowers differ in Colour, being of a reddish purple Colour.

It grows along the Sides of the Fields among *Briars* in the hollow and shady Way not far from *Rotenberg*, a City of *Hesse* upon the River *Falde*, where *Clusius* saw it.

12. *Anacampteros flore albo, supina*. Low *Dypine*, with a white Flower.

13. *Anacampteros orientalis, Portulacæ folio*. Oriental *Dypine*, with a *Purslane* Leaf.

14. *Anacampteros orientalis, folio subrotundo, minori, eleganter crenato*. Oriental *Dypine*, with a roundish Leaf finely notched.

It is called *Anacampteros*, because the *Witches* formerly used it *απὸς τὸ ἀνὰ κύναν* & *ἐπέλα*, ad revocandum amorem, to rekindle Love.

All the Species of this Genus are vulnerary and astringent. The chief Use of them is in the Erosion of the Intestines occasioned by a Dysentery, in curing Ruptures, and in the healing of Burnings: For which Purposes the distilled Water, or the Root boiled in Wine with Honey is given to be drunk.

This Herb has a wonderful Verrue in easing of Pains; and the Leaves bruised and laid on, produce this Effect both in green Wounds, and in putrid and inveterate Ulcers.

The Herb toasted under the Ashes and mixed with Hogs Grease, and laid on Felons or Whitlows, cures them to Admiration.

The fresh Root of this Herb, or some Knots of it (as there are more or fewer of them that grow in a Year,) hung by a Thread betwixt the Shoulders, immediately eases the Pain of the Hemorrhoids, and all the Knots at the same time decay and vanish with the Root, *Ephemer. German. An. 2. Obs. 195.* where Dr. *Wedel* celebrates it with wonderful Encomiums, and proves the Efficacy of it by two Instances. Tho' I do not deny but there may be some Vertue in Amulets, yet I am not much inclined to lay great Strefs on them.

The 8th Species is not much in Use by the modern Practitioners, unless that it is sometimes boiled in Decoctions for the Stone in the Kidneys. Mr. *Ray* is of opinion with *J. Baubinus*, That it is much of the same Temperament with the *Rose* or *Crassula*, with which it has so great an Agreement in its Look, that there is no Reason for calling it by a different Name.

The Leaves of the 2^d Species have a clammy Acidity, and redden blue Paper very much. This Plant analysed yields abundance of Acid, pretty much Earth and Oil, and a good deal of volatile concrete Salt: And therefore there is Reason to believe that it contains an aluminous Salt mixed with *Sal ammoniack* wrapped up in a little Sulphur. This Plant is deterfivè, astringent, and vulnerary: Being applied externally it hastens the Suppuration of Tumours. *Tournefort.*

Tragus tells us, from the Experience of his Countrymen the *Germans*, That the distilled Water of *Orpine* is successfully taken by those that have any Gnawings or Excoriations in their Stomach or Bowels, or have Ulcers in their Lungs or Liver, or their inward Parts, as also in the Matrix; and that it cures all those Diseases, being drunk for several Days successively. The Leaves are much used to make Garlands about *Midsummer* with the *Corn-Marigold-Flowers*, put upon Springs to be hung up upon Bushes and Maypoles, and in Houses, &c. The same *Tragus* informs us of a superstitious Custom observed in his Country by some People, after *Midsummer-day* is past, viz. hanging it up over their Chamber-doors or upon the Walls, where it will continue fresh and green till *Christmas*, and like the *Aloes*, spring and shoot forth new Leaves; those that hang it up having this Persuasion,

That they shall be troubled with no Distemper so long as it continues green.

TABLE CXLII. Fig. 1.

GENUS III.

Ulmaria, Meadow-sweet.

MEADOW-SWEET is a Plant with a Rose-Flower A, consisting of a great many Leaves B, placed orbicularly: Out of whole Flower-cup D, rises the Pointal C, which afterwards turns to a Fruit E, composed of many little membranous and crooked Husks F, gathered into a Head, and generally furnished with one small Seed G.

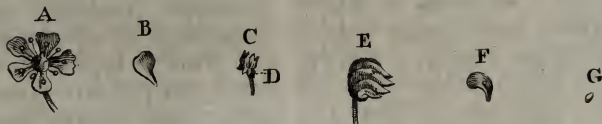
There is but one Species of this Plant, which is,

Ulmaria. Clus. Hist. 198. F. B. 3. 488. Barba Capræ, floribus compactis. C. B. Pin. 164. Regina Prati. Dod. Pempt. 57. Meadow-sweet.

The Fibres of the Roots are reddish and ligneous. *J. Baubinus* gives it a Root about the Bigness of one's Finger, furnished with numberless reddish Fibres. It rises with a Stalk a Cubit and a half high and better, which is upright, corner'd, reddish, firm, hollow, and branched. The Leaves are set on the Stalks alternately at Distances, being composed of three or four large Finns joined together, with an odd Wing on the last Leaf, divided after the Manner of the Leaves of the *Rasp-berry-bush*. Betwixt these large Finns are placed some smaller ones, as in the *Filipendula* and *Agrimony*; all of them being jagged round the Edges, whitish underneath, and green above. But the Leaves resemble the Leaves of *Elm* in their curled Folds, from whence the Plant took its Name. The Flowers are ranged on the Tops of the Stalks and Branches Umbel-fashion, no Leaves being intermixed, and are of a sweet Smell, placed and shaped like the Flowers of common *Filipendula*, white, five-leav'd, and in like manner furnished with a great many white Chives. To each Flower succeed several naked oblong Seed-vessels, which are crooked and forced almost into the Form of a little Ball.

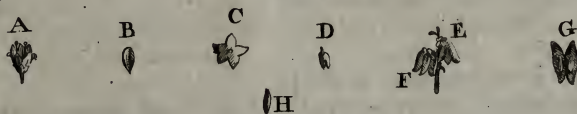
Vlmaria, Meadow-Sweet.

Fig. 1.



Barba Capræ, Goats-Beard.

Fig. 2.



Fagonia.

Fig. 3.



Tribulus. Caltrop.

Fig. 4.



1. The first section of the report deals with the general situation of the country and the progress of the work during the year.
2. The second section contains a detailed account of the work done in the various departments of the institution.
3. The third section gives a summary of the results of the work and a statement of the progress made.
4. The fourth section contains a list of the names of the persons who have been employed during the year.

It grows every where in great abundance in wet Meadows and upon the Brinks of Brooks.

It is called *Ulmaria* from the Likeness which its Leaves bear to those of the *Elm*.

The Leaves with the Flowers are in Use, and sometimes the Root. It cools, dries and binds, and is sudorifick and alexipharmack; and therefore is proper in all Manner of Fluxes, such as the Diarrhoea, Dysentery, the monthly Terms, as also in Spitting of Blood: It prevents the Plague. There are who employ the Root externally, and lay it fresh and bruised upon Wounds, both to stop the Blood and to consolidate the Wounds. *Schrod.*

The Preparations of it are: 1. The distilled Water of the Leaves and Flowers. 2. The Extract, which is very much cried up by *Quercetanus*. *Id.*

The Flowers give an agreeable Flavour to Wine, and make it as good as Malvatick Wine. *Hoffman.*

The Flowers have an agreeable Smell, they exhilarate the Heart, and yet do not disturb the Head, and therefore they are very proper to adorn and be strewed in Bed-chambers and Parlours; and it was reported, that Queen *Elizabeth* was more pleased to have her Rooms bestrewed with it, than with any other Kind of sweet Herbs. *Rupellensis Renatus*, according to *J. Baubinus*, says, That it gives a pleasant Relish to Mead, and that it may be so prepared as to be equal to *Candy Wine*, which they call Malvatick Wine.

I my self have seen and can solemnly affirm, That *Meadow-sweet* produced notable Effects on a deadly Wound in the Bladder of a young Maid, and in an almost incurable Fracture of the Arm; and therefore it is very deservedly an Ingredient in the Plaster of *Felix Wurts*. *Sim. Pauli. Quadrip. Botan. p. 452.*

Felix Wurts gives mighty Encomiums to the Roots of this Plant; nay, he seems to prefer it before all other vulnerary Herbs whatsoever, or such as are in greatest Reputation for Fractures of the Bones. *Id.*

It is said to alter and take away the Fits of *quartan* Agues, and to make the Heart chearful; for which Purpose some use the Flowers and some the Leaves. It likewise speedily relieves those that are troubled with

the Cholick, being boiled in Wine; and taken warm with a little Honey, it opens the Belly.

Meadow-sweet yields some acid Spirits, some urinous Spirits, some volatile concrete Salt, and abundance of Oil. It is sudorifick and vulnerary. The distilled Water of this Plant deserves to be preferred to that of *Carduus Benedictus*, and the Decoction of its Root to that of *Scorzonera*. The Infusion of the Root of *Meadow-sweet* in Wine is good against Spitting of Blood, the Dysentery, the Lask, and too abundant Courses. But then the Use of it must be continued. The Extract of it, to the Quantity of a Dram, several Times repeated, is good in malignant Fevers. *Tauvy.*

The Leaves of this Herb have a saltish and clammy herby Taste. They redden blue Paper a little; and the Root reddens it considerably: It is stiptick and somewhat bitter. It is probable that the Salt of this Plant is much of the Nature of *Sal ammoniack*, but it is united with Abundance of Sulphur, and a good deal of Earth. By a chymical Analysis, *Meadow-sweet* yields acid Liquors, some volatile concrete Salt, abundance of Sulphur, and a good deal of Earth: And thus this Plant is sudorifick, cordial and vulnerary. The Decoction of its Root is very proper in malignant Fevers; and is preferable to that of *Scorzonera*. The Wine in which *Meadow-sweet* has been boiled cures a Lask of the Belly, the Bloody-flux, Spitting of Blood, and internal Wounds. A Dram of the Extract of this Root is sudorifick; but the Use of it must be continued for three or four Days time, if you would have any sensible Effect from it. It is the same with other Sudorificks; for taking them once produces nothing considerable. You ought therefore to give a Dram of the Extract of the Roots of *Meadow-sweet* in the Morning, and as much after Noon, and in the Evening mix it with a Grain of *Laudanum*; and continue doing so for two or three Days successively, if necessary. The Decoction of these same Roots is deterfive, and is proper for Wounds and Ulcers. *Tournefort.*

TABLE CXLII. Fig. 2.

GENUS IV.

Barba Capræ, Goat's-beard.

Goat's-beard is a Plant with a Rose-Flower A, consisting of many Leaves B, placed orbicularly : Out of whose one-leav'd Flower-cup C, rises the Pointal D, which afterwards turns to a Fruit FE, composed as it were of many Husks collected into a Sort of a Head, each of which G, contains in it a Seed which is commonly oblong H.

There is but one Species of this Plant, which is,

Barba Capræ floribus oblongis. *C. B. Pin.* 163. Barba capri. *J. B.* 3. 488. *Drymopogon primum. Tabern. Icon.* 777.

It has a pretty thick fibrous Root, covered with a pretty thick Bark which inclines to red, under which is a ligneous Substance with a great deal of white inspid Pith. The Stalks are two or three Cubits high and better, hollow with many Wings, smooth, round, full of Pith, bored through with a narrow Pipe, which the Branches have not. The Leaves resemble those of *Chestnut*, and are oblong, pointed, dented, several of them growing together at a Rib, and not separated by any smaller ones as in the *Ulmaria* or *Meadow-sweet*; from which the Flowers of this do very much differ, being placed in Clusters on small Tenons, very small and white.

Mr. Ray observed the Leaves of this Plant to be double or triangular, and divided after the Manner of umbelliferous Plants, rugged and curiously dented round the Edges. To each Flower succeeds several separate Husks.

The same Author observed this Plant on the Hill *la Bastie* near *Geneva*, and in *Switzerland* not far from *Scaffbusen*, in a wet Place.

This Plant is called *Barba Capræ*, because the Flowers in their Arrangement are supposed to resemble a Goat's Beard.

The Vertues are the same as in that immediately preceeding.

TABLE CXLII. Fig. 3.

GENUS V.

Fagonia.

Fagonia is a Plant with a Rose Flower A, consisting of many Leaves B, placed orbicularly : Out of whose Center rises the Pointal C, which afterwards turns to a channelled, round, pointed Fruit D, consisting of many Cells E, and composed of several Husks, each of which F, is filled with a roundish Seed G.

The Species of Fagonia are,

1. Fagonia Cretica, spinosa. *Trifolium spinosum, Creticum. C. B. Pin.* 330. *Prodr.* 142. *Trifolium aculeatum, Creticum. J. B.* 2. 388. *Thorny Trefoile of Candy.*

This is a rare Kind of Trefoil, says *J. Bauhinus*, being peculiar to *Crete*; whose Stalk is divided into Branches that grow alternately, and are very thick-set, cornered, divided again into smaller Branches, lying along and spreading upon the Ground : But where-ever the Branches and Shoots break out, there come forth two small Foot-stalks opposite to one another, each of which sustains three small, oblong, smooth Leaves, that end in a prickly Point; and under the same Divarications or Divisions stand crooked, stiff, sharp Prickles that bend downwards. [*Clusius* says, That at each Joint there are four little Prickles, two looking downwards, and as many upwards.] But above comes forth a short Foot-stalk from the Junction of the Branches, on which stands a large, beautiful, violet-purple-coloured Flower peeping out of a greenish Flower-cup, resembling the Flower of the *Lysimachia speciosa*, and composed of five Leaves with yellow Chives possessing the Middle. The Pods consist of four or five channelled broadish Ribs, which meet together at a narrow Point, with a flat, reddish Seed contained in each of them.

2. Fagonia Hispanica, non spinosa. Spanish Fagonia, without Prickles.

TABLE CXLII. Fig. 4.

GENUS VI.

Tribulus, Caltrops.

Caltrops is a Plant with a Rose-Flower A, consisting of many Leaves B, placed orbicularly: Out of whose Flower-cup D, rises the Pointal C, which afterwards turns to a Cross-fashioned or Top-fashioned Fruit E, generally composed of several Parts F, that are full of Points, gathered into a Head, and full of Seed H, which are commonly oblong, and nestle in Cells G.

The Species of Caltrops are;

1. *Tribulus terrestris*, *Ciceris folio*, *seminum integumento aculeato*. *Mor. Hist. Oxon. Part. 2. 102.* Land Caltrops, with a Cich Leaf, and a prickly Seed-vessel. *Tribulus terrestris*, *Ciceris folio*, *fructu aculeato*. C. B. Pin. 350. *Tribulus terrestris*. J. B. 2. 352. Dod. Pempt. 557.

It shoots down a long, white, single Root, that has a few Fibres at it. It puts forth several Stalks that spread upon the Ground, and are round, hairy, jointed, reddish, a Palm or even nine Inches long, and divided into many Branches. The Leaves have Fins like those of the *Cich*, one growing at each Joint, placed alternately, but standing in Pairs over against one another on the Tops of the Branches, and hairy like the Leaves of wild *Poppy*. Yellow five-leav'd Flowers stand upon pretty long Foot-stalks that issue from the Bosoms of the Leaves. To these succeed prickly Heads, hanging at pretty large Prickles, composed as it were of five Triangles, all the Points of which meet in the Center; the rest of the Angles stretch out into a long and sharp Prickle. Besides these, there are also other little Prickles which embrace the Foot-stalk.

It springs up about the End of May, and is every where to be seen in hot Countries, such as *Italy* and the *South of France*, with Flower and Seed in the Months of *July* and *August*.

2. *Tribulus terrestris*, *major*, *Curassavicus*. *Prodr. Par. Bat. & Par. Bat.* The great

Land American Caltrops. *Tribulus terrestris*, *Americanus*, *Chamacisti flore*, *fructu spinoso*, *maximo*. Breyn. Prodr. 2. Hort. Amst. Fig. 32.

It is nourished by a somewhat ligneous Root; from which come forth branched Stalks a little hairy, and lying along upon the Ground, unless they are supported. These are adorned by double Leaves, which are of a faint green Colour, pointed at top, resembling those of the common Land Caltrops, or those of *Cich*, only they are larger. The Flowers are five-leav'd, yellow, resembling the *Chamacistus*, whose Navel is possessed by several *Stamina*, which bear ten short, yellow Heads. In the Garden of *Amsterdam* it flowered in the Months of *July* and *August*; and to the Flowers succeeded the Seeds, which resemble the Seeds of common Land Caltrops, but were larger, and very rarely come to Maturity.

According to the Observation of Dr. *Ruysh*, the Stalks were as thick as a Blade of Corn, jointed and round, to which adhered on both Sides finny Leaves of different Length, one of which consisted of seven or eight small equal Leaves adhering to one Rib, but the other opposite one was composed only of two. The Flowers in a herby Flower-cup divided into five Parts arose from the Bosoms of the Leaves, and were sustained by Foot-stalks an Inch long.

Four or five Seeds were gathered in a prickly Ball, which easily separated from one another when ripe.

3. *Tribulus terrestris*, *Americanus*, *fructu turbinato*, *foliis lanuginosis*. *Plum.* American Land Caltrops, with copped Fruit, and downy Leaves.

4. *Tribulus terrestris*, *Indiæ orientalis*, *foliis Viciæ subrotundis & villosis*. East India Land Caltrops, with roundish and hairy Wetch Leaves.

We call this Plant in *English*, Caltrops or Galtraps from the Form of the Fruit, which resembles those Instruments of War that were cast in the Enemies Way to annoy their Horses.

Land Caltrops are of an earthy-cold Quality, and therefore astringent, and proper to put a stop to Inflammations and Impostumes, and any Flux of Humours: Besides, having subtle Parts, it helps much to break and waste the Stone in the Kidneys. A Lotion made with

with it heals all Sores and Ulcers in the Mouth, and all Corruptions that breed in the Gums and Throat. The Juice cleanses Inflammations and hot Rheums in the Eyes. A Dram of it taken in Wine cures the Venom of Vipers, and other Poisons. The *Thracians*, say *Pliny* and *Galen*, that live near the River *Strymon*, feed their Horses with the green Herb, and live themselves on the Fruit or Kernel, making it into a sweet Bread that binds the Belly. The Seed bound to swollen Veins in the Legs or other Parts of the Body, takes away the Swelling, and eases the Pain. *Park.*

The Fruit of *Calrops* contain abundance of Oil and essential Salt. It is cleansing, opening, and proper to stop a Flux in the Belly, to break the Stone in the Kidneys, and to resist Poison, being taken in Powder. The Dose is from a Scruple to a Dram. It is said that the Decoction of this Fruit sprinkled in a Room, banishes Fleas. *Lemery.*

TABLE CXLIII. Fig. 1.

GENUS VII.

Juncago, Bastard-Rush.

Bastard-Rush is a Plant with a Rose-Flower A, consisting of many Leaves B, placed orbicularly: Out of whose Center rises the Poinral C, which afterwards turns to an oblong Fruit D, gaping in the Basis E, and composed of three Husks, each of which F, contains one single oblong Seed G.

There is but one Species of this Plant, which is,

Juncago palustris & vulgaris. Common marsh Bastard-Rush. *Gramen junceum, spicatum, seu Triglochin.* C. B. Pin. 6. *Gramen Triglochin.* J. B. ♂ *Hyacinthi parvi facie,* *Gramen Triglochin.* J. B. 2. 308. *Gramen marinum, spicatum, alterum.* Lob. Icon. 17.

This is a Plant that very much resembles Grass, but the Leaves resemble those of the smallest Sort of *Rush*. The Tops end in Spikes, or have Flowers standing upon them consisting of several Leaves, and resembling a *Rose*. To these succeed oblong Fruits, each of which is composed of three Sheaths or

Husks, within each of which is contained one Seed. This Plant grows in Marshes.

It is deterfive and opening by Urine, but it binds the Belly.

TABLE CXLIII. Fig. 2.

GENUS VIII.

Geranium, Cranes-bill.

Cranes-bill is a Plant with a Rose-Flower A C, consisting of many Leaves B, placed orbicularly: Out of whose Flower-cup D, rises the Poinral E, which afterwards turns to a beaked Fruit F, cut lengthwise into five Channels G, to which adhere so many Seed-vessels H I K L M, ending in a long Tail, turning themselves outward from the Bottom to the Point when ripe, and full of Seed N P, which is generally oblong O.

The Species of *Cranes-bill* are,

1. *Geranium Batrachioides, folio Aconiti.* C. B. Pin. 317. *Crowfoot Cranes-bill*, with a *Wolfsbane* Leaf. *Geranium Batrachioides, aliud, folio Aconiti nitente Clusii.* J. B. 3. 476. *Geranium secundum, Batrachioides, minus.* Clus. Hist. 99.

The Root of this is pretty thick and fibrous, shooting down obliquely, and of a bitter and astringent Taste. The Leaves are like those of *Geranium fuscum*, standing upon long Foot-stalks, divided into seven or nine Jags, but not quite so deep as the Leaves of the common *Crowfoot Cranes-bill*; besides, they are softer and more flaccid, not quite so rugged, and hairy on both Sides. The Stalk is a Foot or even a Cubit high, round, hairy, and furnished with one or two Leaves before it is parted into Branches. A great Number of five-leav'd Flowers grow on the Tops of the Branches, smaller than those of the common *Crowfoot Cranes-bill*, of a middle Colour betwixt the Flowers of the red *Cranes-bill* and those of *Crowfoot Cranes-bill*, viz. of a pale purple Colour, to which succeed the Beaks of common *Cranes-bill*.

It grows in great abundance in the mountainous Forrests, Thickets, Hedges and Meadows of *Westmorland* and *Yorkshire*.

2. *Geranium*

Luncago. Bastard-Rush.

Fig. 1.

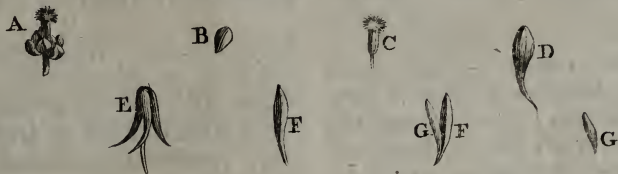


Fig. 2.

Geranium. Cranes-bill.





2. *Geranium Batrachioides*, folio *Aconiti*, flore albo, lineis cæruleis variegato. *C. B. Pin.* 317. *Crowfoot Cranes-bill*, with a *Wolfs-bane* Leaf, and a white Flower variegated with blue Spots.

3. *Geranium Batrachioides*, folio *Aconiti*, flore albo. *C. B. Pin.* 317. *Crowfoot Cranes-bill*, with a *Wolfs-bane* Leaf, and a white Flower.

4. *Geranium Batrachioides*, maximum, minus laciniatum, folio *Aconiti*. *J. B.* 3. 477. The great *Crow-foot Cranes-bill*, not so much jagged, with a *Wolfs-bane* Leaf. *Geranii majoris species, foliis magnis, figura ferè & magnitudine Aconiti lutei, hirsutis, asperis.* *Gesn. App.* 292.

5. *Geranium Batrachioides*, odoratum. *C. B. Pin.* 318. Sweet-smelling *Crowfoot Cranes-bill*. *Geranium Batrachioides, longius radicatum, odoratum. J. B.* 3. 477. *Geranium Batrachioides, alterum. Dod. Pempt.* 63.

This yields to no *Cranes bill* in the Beauty of its Flowers, which are of a dark-purple Colour, composed of five Leaves, and sweet-smelled, peeping out of a globular, channelled, reddish and hairy Flower-cup, with a rising Curl of purplish *Stamina*, and standing upon hairy, jointed Stalks nine Inches, and sometimes above a Cubit high. The Leaves are divided in some sort like *Sanicle* Leaves, and are hairy, or of a hoary green Colour, and breath no disagreeable Smell. The Root, which shoots down obliquely, is long, about the Thickness of one's little Finger, furnished with Fibres and jointed Knobs, reddish without and white within, with a powerful *Astringency*, and a strange sort of aromatick Taste.

It is cultivated in Gardens, but the *Botanists* are silent as to its native Soil.

6. *Geranium Batrachioides*, *Gratia Dei Germanorum*. *C. B. Pin.* 318. *Crowfoot Cranes-bill*. *Geranium Batrachioides. J. B.* 3. 475. *Dod. Pempt.* 63.

The Root of this Plant is thick, shooting down obliquely, covered with a reddish Bark, of a box-colour within, sending forth thickish Fibres, and is of a bitter and astringent Taste. From thence spring up several Leaves, standing upon Foot stalks nine Inches long, of a round Figure, resembling thole of *Wolfs-bane*, divided into seven considerable Jaggs almost to the Foot-stalk, and rugged with deep Veins. The Stalks are slender, a Foot

or a Cubit high, round, and covered with a short whitish Down, as are also the Leaves and their Foot-stalks; naked of Leaves till they are divided into Branches, where commonly there are set two of them opposite to one another. The Stalk is divided into two Branches, and each Branch again into other Branches. From the Angle of each Divarication comes forth a Shoot that sustains two or three large five-leav'd Flowers, of a blue purple Colour striped with deeper Lines, with roundish Foot-stalks, and standing in a five-leav'd, hairy, channelled Flower-cup. To them succeed short, thick, hairy Beaks, surrounded at Bottom by five round oblong Husks, containing so many oblong, sinuated, dusky Seeds.

It is frequently to be met with in Meadows and wet Grounds.

The *Geranium Batrachioides flore variegato Park.* does not differ in Species from this, but only accidentally.

7. *Geranium Batrachioides*, *Gratia Dei Germanorum*, flore albo. *C. B. Pin.* 318. *Crowfoot Cranes-bill*, with a white Flower. *Geranium Batrachioides, album. J. B.* 3. 476.

8. *Geranium Batrachioides*, minus, five *Gratia Dei Germanorum. C. B. Pin.* 318. *Small Crowfoot Cranes-bill*.

9. *Geranium Batrachioides*, flore variegato. *C. B. Pin.* 318. *Crowfoot Cranes-bill*, with a variegated Flower. *Geranium Batrachioides, ex albo cum cæruleo colore varium. J. B.* 3. 476. *Geranium Anglicum, variegatum. Eyft.*

10. *Geranium Batrachioides*, collum *Gruis Germanorum. C. B. Pin.* 318. *Crowfoot Cranes-bill*, or *Cranes-neck. Gruinalis Dodonæi. Lugd.* 1278.

11. *Geranium annuum*, minus, *Batrachioides, Bohemicum, purpureo-violaceum. Mor. Hist. Oxon.* 2. Part 511. *Small annual Crowfoot, Bohemian purple-violet Cranes-bill*.

12. *Geranium Batrachioides*, minus, perenne, versicolor. *Mor. H. R. Bles.* *Small perennial, variegated Crowfoot Cranes-bill*.

13. *Geranium phæum* five fuscum, petalis reflexis. *Mor. Hist. Oxon. Part* 2. 515. *Brown Cranes-bill*, with Flowers that have Leaves bending back.

This Species of *Cranes bill* is very beautiful, with larger Leaves than the *Batrachoides*, which are divided into about eight Segments, which are narrow at the Ends, but broad near the Foot-stalk, hairy, bestrewed with blackish Veins, notched pretty deep round the Edges, and endowed with no manner of Smell. On the Top stands a Flower that is purple and almost brown, pretty large, and pretty much like the Flower of sweet-smelling *Cranes-bill*, that turns and bends backwards. In the Middle stand Chives. When the Flowers fall they are succeeded by Bills an Inch long.

Mr. Ray gathered this Plant, which he found growing wild, on the highest Part of *Jura* near *Thuri*: And the Colour of the Plant which he observed on the woody Tops of Mount *Jura*, was much fainter than that of the *Geranium phæum*, and rather purple than brown: And the whole Plant seemed to be more hairy than that.

14. *Geranium phæum* five fuscum, petalis reflexis, folio non maculato. *H. L. Bat.* Brown *Cranes-bill*, with Flowers having bending Leaves, and a Leaf that is not spotted.

15. *Geranium phæum* five fuscum, petalis rectis seu planis. *Mor. Hist. Oxon. Part 2. 515.* Brown *Cranes-bill*, with Flowers having straight or plain Leaves. *Geranium phæum* five pullo flore *Clusii*. *J. B. 3. 477.*

From one Root it produces a great many Stalks a Cubit high, firm, jointed, green, but bestrewed as it were with Drops of Blood, covered with Hair, and divided into several Branches: At the Tops of which, at each Joint, grow long Foot-stalks, on which stand Flowers in Pairs, consisting of five small jagged Leaves, in which this differs from the other *Cranes-bills*, of a deep reddish Colour, and as it were black, many twisted Stamina with a Pointal sticking up possessing the Middle. Then succeeds the Seed in sharp-pointed Seed-vessels, (which is brown) which when ripe fly asunder, and fold together as in the other *Cranes-bills*. From the Root rise many Leaves that are large, soft, covered with Down, nervous on the back-side, resembling the Leaves of *Crowfoot Cranes-bill*, divided into five, six or seven deep Jaggs, and then dented round the Edges; such-like also grow at every Knot under the Branches, but smaller,

and marked with black Spots at each Division. It stands upon a large Root which spreads into many thick reddish Heads that put forth many Fibres, growing bigger every Year, and producing new Shoots.

It is found upon the Mountains of *Stiria*, where the Forrefts begin to fail, and flowers in *June*; but in Gardens where it thrives well, it flowers in *May*: In which Month also *Clusius* observed it loaden with Flowers on those mountainous Forrefts of *Hungary* that are situated between the *Drave* and the *Save*, and are therefore called *Interamnes*.

16. *Geranium phæum* five fuscum, petalis rectis seu planis, folio maculato. *H. L. Bat.* Brown *Cranes-bill*, with Flowers having straight or plain Leaves, and a Leaf not spotted.

17. *Geranium radice grumosa*. *C. B. Pin.* 318. *Bulbois Cranes-bill*. *Geranium Asphodeli radice*. *J. B. 3. 475.* *Geranium atum, bulbosum Pennei*. *Clus. Hist. 100.*

This *Cranes-bill* has many small Bulbs or Kernels issuing from a long whitish Root, which is knotted and jointed, and several Fibres set both above them and at their Ends. The Stalk is about a Cubit high, with Joints or Knees in several Places, at each of which come forth small sharp-pointed Leaves, as also two large Leaves upon long Foot-stalks, divided into five Parts, each of them somewhat notched on the Edges. At the Tops of the Stalks and Branches, and also from the upper Joints, come forth several Flowers together, each standing on a short Foot-stalk, consisting of five Leaves apiece, of a reddish purple or rose Colour, not so large as those of the *Crowfoot Cranes-bill*.

18. *Geranium nodosum*. *C. B. Pin.* 318. Knotted *Cranes-bill*. *Geranium magnum, folio trifido*. *J. B. 3. 478.* *Geranium quintum, nodosum Plateau*. *Clus. Hist. 101.*

It sends up from the Root several pretty firm Leaves that are divided into five deep Jaggs; among which rise two or three slender Stalks a Foot high, of a dark purple Colour, jointed and knotted, bearing two Leaves at each Knot or Joint opposite to one another, cut only into three Jaggs; and then pretty long Foot-stalks from the Middle Wings, on which stand two and sometimes three or four Flowers together, consisting of five split Leaves of a purple Colour, but marked with some

some deeper-coloured Veins, a red Umbon sticking up in the Middle, split at top into five Parts, which afterwards turns to a longish Bill, which contains Seed on the lower Part in swoln Bags, that flies out of its own accord when ripe, as in the other Species. The Root is knotted and jointed, and furnished besides with some Fibres.

Mr. Ray found this Species in Dauphinè, going from Grenoble to La fontaine que brûle, by the Sides of Hedges.

19. Geranium Mucoviticum, purpureum. Park. Theatr. 705. Purple Cranes-bill of Muscovy.

This purple Cranes-bill has broad Leaves commonly divided into five Segments, and likewise dented round the Edges, somewhat resembling *Geranium fuscum*, but not quite so large, or rather like the *Geranium Romanum versicolor*, but of a deeper green Colour, having some black Spots also like them at the bottom of the Divisions of the Leaf. The Stalk rises above two Foot high, with several Tufts of large blue Flowers tending to red. The Seed that follows is almost as small as that of the Roman striped Kind. The Root shoots forth several Heads, by which it is increased, but loses all its Leaves in Winter, which the others do not.

20. Geranium Romanum, versicolor five striatum. Park. Parad. 229. Variable, striped, Roman Cranes-bill.

From the Root of this beautiful Cranes-bill come forth many broad fibrous Leaves, of a pale or yellow green Colour, divided into five or seven Segments, but not to the Center or Foot-stalk, as in the *Geranium Batrachoides*. Every Leaf is marked at every Division or Angle of Incision with a dark purple Spot: In summ, the Leaves are perfectly like those of the *Geranium fuscum*, both in Shape, Colour, and Spots, and differ only in this, that they are smaller. Among the Leaves rise several Stalks a Foot high and better, which are jointed and knotted, bearing three or four Flowers on their Tops, which are five-leav'd and white, most beautifully variegated with a great many small Lines or Veins of a red purple Colour, meeting one another in bending Arches, and joined as it were by Anastomoses; so that you will hardly see so many Nerves upon any green Leaf. The Middle

of the Flower is possessed by a small Pointal, which becomes the Seed-vessel after the Flower falls. The Root is composed of many, small yellow Fibres.

21. Geranium sanguineum, maximo flore. C. B. Pin. 318. Bloody Cranes-bill with a very large Flower. *Geranium sanguineum* five *Hematodes*, *crassa radice*. J. B. 3. 478. *Geranium 7mm*, *Hematodes*. Clus. Hist. 102.

This Species has a thick Root furnished with some Fibres, and spreads new Shoots under-ground every Year from the Sides, which not only spread Fibres in like manner, but also fortify themselves sometimes with thicker Roots. It sends up several Stalks a Cubit high, which are reddish, hairy, jointed, and divided into many Branches. At each Juncture grow two Leaves of a round Figure, which are divided almost to the Foot-stalk into five Jaggs that consist generally of three Parts, and are hairy, green above, and hoary underneath, and furnished with a dry and astringent Taste. From the upper Wings come forth oblong Foot-stalks, each of which sustains one single Flower, which is the greatest among all the Species of Cranes-bill, almost equal to the Flower of the male *Cistus*, of a beautiful red Colour, made up of five Leaves, and ten Stamina within, which are supported by five nervous, hairy, greenish Leaves that rise under them. To the Flower succeed five-cornered Bills, which contain Seed in swoln Bags, which flies out with a Noise when ripe, and the Points of the Baggs twist themselves round at the same Time.

It is frequently to be met with in Heaths, mountainous Copses and Thickets, but is rarely found elsewhere.

22. Geranium hematodes, flore variegato. Hort. Edinb. Bloody Cranes-bill, with a variegated Flower. *Geranium hematodes*, *Lancastrense*, *flore eleganter striato*. Raii. Hist. 1061.

It agrees in all Things with the common bloody Cranes-bill, except in the Colour of the Flower, which is white variegated with red Stripes.

This Plant was found in the Isle of Wakeney near Lancaster, by Dr. Lawson, and shown to Dr. Newton growing on a sandy Place on the Sea-shore.

23. *Geranium hæmarodes*, foliis majoribus, pallidioribus & altius incis. *Raii Synops.* 219. Bloody Cranes-bill, with greater and paler Leaves more deeply jagged.

24. *Geranium sanguineum*, cauliculis erectis, flore minore. *H. L. Bat.* Bloody Cranes-bill, with upright Stalks, and a smaller Flower.

25. *Geranium tuberosum*, majus. *C. B. Pin.* 318. Great bulbous Cranes-bill. *Geranium tuberosum*. *J. B.* 3. 474. *Dod. Pempt.* 71.

It got its Name from its bulbous, livid and insipid Root; whose Leaves are furnished with a Foot-stalk somewhat hairy, and are a Palm and half or a Palm broad, divided into eight or nine Segments to the very Foot-stalk, each Segment being cut again into smaller Parts. The Stalk is a Foot high or better. The Flowers on round, reddish, and hairy Foot-stalks, are of a beautiful purplish Colour, consisting of five Leaves that are divided a little at top, with purple Stripes of a deeper Dye, and somewhat hairy about the Edges. The Flower it self is surrounded by five pointed Leaves, which are somewhat reddish on the In-side, smooth, greenish without and downy. The Beaks are small and pointed. The Root sends forth Fibres on every Side, which swell into little Bulbs at Distances, which in a little Time putting forth Leaves & Stalks, get rid of their Parent, and become new Plants: And hence this Plant propagates it self far and wide.

It is said to grow in *Illyricum*, and flowers in *June* and *July*.

26. *Geranium argenteum*, Alpinum. *C. B. Pin.* Silver-leav'd, mountain Cranes-bill. *Geranium argenteum montis Baldi*. *J. B.* 3. 474. *Geranium Alpinum longius radiculatum*. *Pon. Bald.* in fol. 362.

It shoots down into the Ground directly a long bulbous Root, branched on the upper Part next the Surface of the Earth into two or three Heads; from each of which spring up five or six Leaves that stand upon very long Foot-stalks, split into five principal Jaggs to the very Foot-stalk, and they again cut into three towards the Point, covered with soft and hoary Down, and are of the Colour of *Silver-weed*. Among the Leaves rise other long Foot-stalks, sustaining on their Top two

or three pretty large Flowers, consisting of five split Leaves, which are marked with pale red Stripes. In the Middle appear the *Stamina* with the Pointal. The Bills are but short.

J. Bauhinus make its Height to be a little above a Palm, its Leaves to be so small that you may cover them with the Joint of your Thumb, and the Flower to be of a purple Colour.

It grows on the high Rocks of the greater Mount *Baldus*, that look to the *East*; and there it flowers in the Beginning of *June*, and bears ripe Seed about the Beginning of *August*.

27. *Geranium Pyrenaicum*, foliis cineraceis, radice crassa, magno flore variegato. *Pyrenean Cranes-bill*, with ash-coloured Leaves, a thick Root, and a large variegated Flower.

28. *Geranium lucidum*, saxatile. *C. B. Pin.* 318. Shining Stone-Cranes-bill. *Geranium lucidum*. *J. B.* 3. 481. *Geranium rotundifolium, saxatile, montanum*. *Col. Part.* 1. 137.

The Root is very small, a little yellowish, and sometimes hardly fastned in the Ground. The Leaves on small reddish Foot-stalks are roundish, resembling *Doves-foot Cranes-bill*, shining with a beautiful deep and sometimes a paler green Colour, nothing or but a little hairy with thin-set white Hairs, divided into four deep Jaggs that are almost always cut into three Parts, and cut in on the Edges with round Notches. The Stalks are many, shining, reddish, almost lying flat, a Foot long and better, and divided into several Branches. The Flowers resemble those of *Herb Robert* both in Shape and Size, according to *J. Bauhinus*; but *Columna* more truly says they are smaller, and reddish rather than purplish; to which succeed short and pliant Horns or Bills.

It grows wild in great Plenty in stony Places, and on old Walls and Ruins, especially in shady Places.

29. *Geranium parvum*, foliis Ranunculi. *C. B. Pin.* 318. Small Cranes-bill, with Crowfoot Leaves. *Geranium Salmanticense, rostratum*. *Clus. Hist.* 102.

This small *Cranes-bill* has Leaves like the ordinary *Crowfoot*, and small purple Flowers, with

with great Heads like the *Candy Cranes-bill*, and a small fibrous Root.

Clusius living at *Salamanca* observed this Species on the neighbouring Hills that were almost naked and rocky, or at least had very little Grass on them, beyond the River *Thormis*.

30. *Geranium folio Malvæ rotundo. C. B. Pin. 318. Cranes-bill with a round Mal-lows Leaf. Geranium folio rotundo, multum serrato, sive Columbinum. J. B. 3. 475. Pes Columbinus. Dod. Pempt. 61.*

The Root is white, single and surculous, sending up a great many Stalks, which bend down toward the Ground. The Leaves are like those of *Mallows*, and divided into several Segments, generally seven principal ones, or at least five even at the Tops of the Stalks. The Flowers grow in Couples on the same Shoot or common Foot-stalk, being placed near the Tops of the Stalks and Branches, commonly over against the Leaves. The Bills are like those of the Species that immediately follows, and the brown Seeds are also alike. But this differs from it, 1. in its Smallness. 2. In the Roughness of the Stalks and Leaves; the Stalks especially are covered with a soft and long Down, and are much redder towards the Bottom than those of the other. 3. In the Flowers, that are much larger, and shining with a gay purple. 4. In the Shoots or common Foot-stalks of the Flowers, which are generally shorter. 5. In the Leaves, which are smaller, softer and hairy, and also supported by long Foot-stalks.

31. *Geranium Columbinum, majus, flore minore cæruleo. Raii Hist. 1059. The greater blue-flowered Doves-foot Cranes-bill.*

The Root, which is white and single, sends up many infirm Stalks that almost lie upon the Ground, and are nine Inches long and better, thickish, round, jointed, covered with a short and scarce discernible Down, sometimes a little reddish, but much less so than the common Sort. The Leaves are like those of *Mallows*, but cut deeper, and divided into more Segments, standing upon long Foot-stalks, and soft to the Touch by reason of a short Down. At the Joints come forth Shoots bearing two Flowers, each of them standing upon their Inch-long Foot-stalks, being small, five-leaf'd, and of a faint blue-purple Colour.

The Bills which succeed to the Flowers are scarce half an Inch long. At the Bottom of the Bill are five Seeds, each of them shut up in their proper Cells, which are brown when ripe, as in all the other Species of *Cranes-bill*.

It grows in rough and gravelly Places, and upon the Banks of Hedges.

32. *Geranium folio Malvæ rotundo, flore majore cæruleo. C. B. Pin. 318. Cranes-bill with a round Mallows Leaf, and a larger blue Flower.*

33. *Geranium Malacoides seu Malvæ folio rotundo, flore albo. Mor. H. R. Bles. Cranes-bill with a round Mallows Leaf, and a white Flower.*

34. *Geranium folio Malvæ rotundo, minus. C. B. Pin. 318. Small Cranes-bill, with a round Mallows Leaf.*

35. *Geranium Columbinum, perenne, Pyrenaicum, maximum. The greatest perennial, Pyrenean, Doves-foot Cranes-bill.*

36. *Geranium montanum, rotundifolium, perenne, flore purpureo, majore. Bocc. Mus. Part. 2. 81. Tab. 72. Mountain, round-leaf'd, perennial Cranes-bill, with a large purple Flower.*

It is found on the Mountains *del Cimone della Bania*, and on the Mountains of *Savoy*. It differs from all the Species of round-leaf'd *Cranes-bill* mentioned by *C. Bauhinus*, in the Thickness, Roundness and Flox of the Leaves, and in the Structure and make of the whole Plant. It rises a Span high, and bears a large Flower.

37. *Geranium Columbinum, maximum, foliis dissectis. D. Plot nat. Hist. Oxon. The greatest Doves-foot Cranes-bill, with cut Leaves. Geranium Columbinum, majus, foliis imis longis, usque ad pediculum divisiss. Mor. Hist. Oxon. Part 2. 511.*

The Leaves that first appear are not round and sinuated like those that went before, but are an Inch, and an Inch and half long, cut in to the very Foot-stalk, and of a more deep green Colour: All of them stand upon long Foot-stalks, and are much larger than the rest of this Genus; among which come up Stalks that are almost as thick as one's Finger, and a Cubit and half high; almost upright, branched, bearing Knobs on the Joints, and cloathed with like larger Leaves deeply cut, and thick-set at the Tops; among which come forth

Flowers

Flowers on short Foot-stalks, shining with a gay Green, and larger than those of the Species immediately following.

It grows in great Plenty in the Hedges near a Village called *Marston*, and in that End of *Botley Chalk-pit* which is next to *Oxford*.

38. *Geranium Columbinum*, dissectis foliis, pediculis florum longissimis. *Raii Hist.* 1059. Dovesfoot Cranes-bill, with cut Leaves, and very long Foot-stalks to the Flowers. *Geranium Columbinum, annuum, minus, foliis tenuiter laciniatis, flore pediculo longissimo insistente.* *Mor. Hist. Oxon. Part 2.* 512.

The whole Plant is somewhat smother than the *Geranium gruinale folio tenuiter diviso*, has greener Leaves, and the Segments of the Flower-cup thrice as large as in that: But the Length of the Foot-stalks on which the Flowers stand is most remarkable of all, they being a Palm long, and sometimes longer. The Plant is annual as that already mentioned.

Dr. Bobart was the first that shewed this Plant to *Mr. Ray*, which he found in the neighbouring Fields to *Oxford*; but afterwards *Mr. Ray* found it himself growing in great Plenty in *Kent* about the Village of *Swanly*, not far from *Derford*: And afterwards he understood, that it had been found long before by *Dr. Goodyer*, in many Parts of the County of *Southampton*.

39. *Geranium Columbinum tenuius laciniatum.* *C. B. Pin.* 318. *Prodr.* 138. Dovesfoot Cranes-bill, with jagged Leaves.

The Stalks of this Species are feeble, a Foot or even a Cubit high, branched, and cloathed with Leaves that grow in Couples opposite to one another at Distances. The lowermost Leaves and such as come from the Root stand upon Foot-stalks a Palm long, being harder than those of the former, not quite so hairy, deeper cut into five Jaggs almost to the Foot-stalk, as in the *Geranium Batrachoides*. From the Wings of the Leaves come forth two Flow'rs together upon the same common Foot-stalk, which is not half a Finger long: But the proper Foot-stalks upon which each Flower stands, are longer, and bend upwards near to the Flower, as in the other Species of this Genus. The Colour of the Flower is a delicious purple not striped with any Lines.

The little Beaks are somewhat longer than in the two preceeding; The Seed-vessels are more bulging, so that the Leaves of the Flower-cup not reaching so far cannot hide the Seeds as in the other Species. The Seeds are brown or tawny.

It rises, and flowers in *Summer*, in the Walks of Gardens, fallow Grounds, and barren Pastures, and near Hedges, especially in a gravelly Soil.

40. *Geranium Columbinum, tenuius laciniatum, flore albo.* *H. R. Par.* Dovesfoot Cranes-bill, with jagged Leaves, and a white Flower.

41. *Geranium Columbinum, minus, majori flore, & foliis florum bifidis.* *Bot. Monsp.* Small Dovesfoot Cranes-bill, with a larger Flower, whose Leaves are split in two.

42. *Geranium Columbinum, majus, foliis tenuiter dissectis, foliis florum bifidis.* *Bot. Monsp.* Greater Dovesfoot Cranes-bill, with Leaves finely cut, and Flowers whose Leaves are split in two. *Geranium gruinale, folio tenuiter dissecto.* *J. B. 3.* 474.

43. *Geranium folio Althææ.* *C. B. Pin.* 318. Marsh-mallow-leav'd Cranes-bill, *Geranium Malvaceum.* *J. B. 3.* 472. *Geranium Malacoides.* *Lob. Icon.* 662.

The Leaves of this Species bear a near Resemblance to *Marsh-Mallow* Leaves, both in Size, Colour and Softness, and are somewhat oblong, hairy, dented round the Edges, hanging at Foot-stalks two or three Inches long, and sometimes almost nine Inches. The Stalks from the same Root are many, hairy, pretty thick, nine Inches or a Cubit high, especially on a fat Soil or a Dunghill. Out of the Bosoms of the Leaves come forth a Foot-stalk two or three Inches long, divided into many Parts, on which stand many blue, five-leav'd Flowers, to which succeed Beaks an Inch, or an Inch and half long.

It grows wild and in great Plenty about *Genoa* in *Italy*, *Montpelier* and elsewhere in the South of *France*.

This Plant, says *J. Baubinus*, is sometimes not above four Inches high, with oval, notched Leaves, almost like those of *Berony*.

44. *Geranium Althææ folio, floribus saturatus rubentibus.* *H. L. Bat.* Marsh-mallow-leav'd Cranes-bill, with flowers of a deeper red Colour.

45. *Geranium Malacoides*, minus. C. B. *Pin.* 319. *Prodr.* 138. Smaller Marsh-mallow-lead'd Cranes-bill.

46. *Geranium Malacoides*, crasso, rugoso, integro folio. *Bocc. Mus. Tab.* 89. Marsh-mallow-lead'd Cranes-bill, with a thick, rugged, intire Leaf. *Geranium Malacoides, supinum, lato, rotundo, crasso, rugoso, integro folio, acu brevissima Carinense.* *Ejusd. pag.* 109.

This Plant lies upon the Ground, and spreads a great many Branches orbicularly a Palm and a half in Diameter. The Leaves are large and rugged, like those of *Alder* or *Elm*: The Beaks are short: The Flowers are Rose-fashioned. It is found in a hilly Place a Mile distant of *Terra di Carini*, in the Road that leads to *alle Croce*, in *Sicily*.

47. *Geranium pusillum, supinum, maritimum, Althææ aut Betonicæ folio, nostras.* *Raii Hist.* 1056. Small Sea Cranes-bill.

The Root is pretty thick, and single, and shoots down directly into the Ground, being furnished with few but pretty large Fibres, and a yellowish Bark, and of a nauseous Taste. When it first comes up, it spreads a great many bending Leaves quite round, that stand on thick, hairy and somewhat flat Foot-stalks two Digits long, resembling *Betony* Leaves, but four times smaller, more deeply jagged, and rough with short thin-set Hairs. The Stalks or Branches are thick, succulent, hairy, and lie upon the Ground. The little Flowers are herby, scarce discernible, and of a purple red Colour. The Beaks are half an Inch long, and grow in Twos or Threes on the same Shoot or common Foot-stalk.

It grows in gravelly and sandy Places on the Western Coast of *England*, viz. in the Isle of *Anglesey*, in *Wales* about the Town of *Carnarvan*, in *Cornwall* about *Pensans*, and elsewhere.

48. *Geranium Alcææ vesicariæ foliis.* *Park. Theat.* 707. Venice Mallow-lead'd Cranes-bill.

This Species of *Cranes-bill* spreads it self far and wide with its long slender Branches, whereon are set at certain Distances many Leaves like the *Venice Mallow*, but more divided: The Flowers are small and purplish; after which follows the Seed contained in small Vessels. The Root perishes

every Year. *Parkinson* says, that the Seed of this and another Species among many others were brought him by *Guillaume Boel*, which he gathered in *Spain* at Mr. *Parkinson's* Charge; however, says he, Mr. *Goodyer* getting the Seeds from Mr. *Coys*, caused it and divers other Things to be published in his Name; notwithstanding Mr. *Parkinson* told him the Charge was his, who procured it and many others.

49. *Geranium Robertianum, primum, viride.* C. B. *Pin.* 319. *Geranium Robertianum, murale.* *J. B.* 3. 480. *Geranium Robertianum.* *Dod. Pempt.* 62. Herb Robert.

Herb Robert is to be met with every where in old Ruins, with a small Root of a Box-colour, which sends up Stalks nine Inches, and a Cubit high, rough, jointed, reddish, and branched, especially about the Joints, and near the Ground. The Leaves rise partly from the Root and partly from the Joints, and are hairy, upon a reddish hairy Foot-stalk, divided almost like the Leaves of *Mother-wort*, there being only three principal Segments, smelling like *Parship* when bruised, of an astringent Taste, somewhat reddish about the Edges, and sometimes wholly so. The Flowers are of a purple Colour, and striped with fainter purple, consisting of five Leaves, and standing in a hairy, black-red, quinque-partite Flower-cup, with saffron Chives in the Middle. To them succeed pointed Beaks, which have Seed hanging at them.

It grows on old Walls, Trees that are cut down, on the Banks of Ditches, and ruinous Places, and flowers the whole Summer.

50. *Geranium Robertianum, primum, rubens.* C. B. *Pin.* 319. Red Herb Robert.

This Plant rises up with several slender, reddish Stalks three Foot high, at whose Joints stand Leaves upon shorter yet reddish Foot-stalks, divided at the Ends commonly but into three Parts, as large or rather larger than the former, and inclining to red likewise. The Flowers are purplish red, and of the same Bigness, and so are the Seeds and beaked Heads; the Root is wholly red both within and without, not smelling so strong as the former.

51. *Geranium Robertianum, flore albo.* *Mor. H. R. Bles.* Herb Robert with a white Flower.

52. *Geranium lucidum*, saxatile, foliis Geranii Robertiani. *Raii Synops.* 218. Shining Stone Cranes-bill, with Leaves like those of Herb Robert.

53. *Geranium Cicutæ folio*, acu longissim. *C. B. Pin.* 319. *Prodr.* 198. Hemlock-leav'd Cranes-bill, with a very long Beak. *Geranium Coriandri folio*, odorum. *Ejuld.* 319. *Geranium Apulum*, *Coriandri folio*, alterum, odorum. *Col. Part.* 1. 135.

It has some Resemblance with that which is thought to be *Candy Cranes-bill*; for its first Leaves seem to agree with that, but the others are much larger, more jagged, and divided like those of *Mother-wort*, unless that they are somewhat blunter; the Leaves next the Stalks are soft, and resemble those of *Coriander*, covered with Hair that is scarce visible, sweet-smelling, standing upon long Foot-stalks about a small Root, (which is yellow or reddish and short) somewhat raised above the Ground, red, and having little Ears or Wings at the Bottom of the Foot-stalk about the Head of the Root from whence they rise. It produces a hairy Stalk in March, furnished with Joints as that of *Candy* and the other Species, on which are set two small Leaves upon short Foot-stalks that rise from the Joints, and furnished also with two cartilaginous reddish Beards as in the rest, but bigger: Out of whose Bosom rises a little hairy and viscid Stalk half a foot long, having a Basis divided into five Parts, from whence come forth four or five Foot-stalks, that put forth Flowers of a faint purple violet Colour, consisting of five Leaves, within five small hairy Leaves that supply the Place of a Flower-cup, which are sharp at top but not pricking. To these succeed Bills four Inches long, thicker at Bottom, and slender at top, and divided into five small Points, which fly asunder when dry, and twist within themselves like *Vine Tendrels*; and then they leave a hooked Point beset with oblong Bristles, which at bottom contains an oblong hairy Seed. It has a very astringent Taste.

It grows wild in sandy Places, and flowers about *Midsummer*.

54. *Geranium Cicutæ folio*, Moschatum. *C. B. Pin.* 319. Musk Cranes-bill, with a Hemlock Leaf. *Geranium supinum*. *Dod. Pempt.* 63.

This Musk or sweet *Cranes-bill* has several winged, long dark-green Leaves lying upon the Ground, yet somewhat whitish by reason of the Hairs thereon, cut into many Parts or smaller Leaves, and each of them cut in on the Edges; among which rise weak tender Stalks scarce able to stand upright, usually not a Foot high, with some such-like Leaves upon them as grow below, but small and finer cut in at the Ends; and among the upper Leaves sometimes also grow several very small red or crimson Flowers; after which come very small Beaks or Bills with Seed at the Bottom, as all the rest of the *Cranes-bills* have; which twines it self as most of them do. The Root is somewhat long, and furnished with several Fibres. It hath a Smell which some resemble to Musk, from whence came the Name; tho' the Scent of the true Musk is much different from it.

It grows wild in great Plenty in the mountainous Part of *Yorshire*, called *Craven*; and Mr. Ray likewise found it not far from *Bristol*, as he was going to *St. Vincent's Rock*.

55. *Geranium Cicutæ folio*, inodorum. *C. B. Pin.* 319. Hemlock-leav'd Cranes-bill, without Scent.

56. *Geranium Cicutæ folio*, minus & supinum. *C. B. Pin.* 319. Hemlock-leav'd, small and low Cranes-bill.

The Root is white and single, having tender Flesh, with a harder and tougher Nerve within, and a Taste like that of *Radish*, furnished with a few Fibres, pretty thick, and shooting deep down into the Ground, From the same Root rise several thickish, round, hairy Stalks, bending to the Earth, branched, and cloathed with thick-set Leaves. The Leaves are winged like the small *Saxifrage Burnet*, and divided into frequent and deep Jaggs. On Shoots or Foot-stalks two or three Inches long, coming forth from the Sides of the Stalk where it is split into Branches, come forth four, five or more Flowers together as in an Umbell, standing upon their own proper Foot-stalks that are half an Inch long or longer; being purplish, five-leav'd, the Leaves being narrow, blunt, not split, and standing in a five-leav'd Flower-cup. The *Stamina* are tipt with reddish Chives. Then follow the five-lobed, beaked Seed-vessels, the Beaks being sharp, an Inch long

long and better. The Seeds are five in Number, oblong, brown or russet.

It grows wild in sandy Places, and flowers about Midsummer.

57. *Geranium Cicutæ folio, minus & supinum, flore albo.* C. B. Pin. 319. Hemlock-leav'd small leaning Cranes-bill, with a white Flower. *Geranium arvense, album.* Tabern. Icon. 57.

This is a Variety of the former, which also seems to differ from it in Specie, in its large white Flower and broader Flower Leaves; in its thicker, shorter and paler Stalks, whereas those of the former are red; and lastly, in its larger Leaves, and less nicely cut.

It is found in the same Places with the former, but is much rarer.

58. *Geranium Cicutæ folio, erectum, Romanum.* Bocc. Mus. Part. 2. 93. Tab. 81. Upright, Roman, Hemlock-leav'd Cranes-bill.

This Plant rises a Foot high. The Leaves are numerous and jagged, resembling those of Ox-eye, or Hemlock, with a very long Foot-stalk. The Form of the whole Plant approaches nearer to an upright and pyramidal than to a lying Posture. The Bills or Beaks are long, but smaller than those of *Geranium Cicutæ folio, acu longissima*. C. B. It is found two Miles from Rome on a Hill and Vineyard adjoining to the Monastery of St. Paul.

59. *Geranium Chrysanthemi Cretici folio, Neapolitanum.* Bocc. Mus. Part. 2. Tab. 83. Neapolitan Cranes-bill, with a Candy Corn-marigold Leaf.

This is a Shrub which rises a Yard high. It bears hairy jagged Leaves, after the Manner of Candy Corn-marigold. The Beaks resemble those of *Geranium Cicutæ folio*. The Flowers are of a faint blue Colour. Boccone found it near Brindisi in the Kingdom of Naples.

60. *Geranium latifolium, longissima acu.* C. B. Pin. 319. Broad-leav'd Cranes-bill, with a very long Bill. *Geranium speciosum, annuum, longissima rostris, Creticum.* J. B. 3. 479. *Geranium Creticum, annuum, hemarodes.* Lob. Icon. 662.

It overshadows the Ground with a great Collection of hairy, knotted, long, tender Branches, which are furnished with long,

hairy, somewhat reddish, sinuated and jagged Leaves of an acid and astringent Taste.

The Flowers are of a beautiful blue Colour, consisting of five Leaves, with a purple Pointal in the Middle; around which stands a five-leav'd Flower-cup composed of Threads joined by a middle white pellucid Membrane. The Beak is above a Palm long, and somewhat thick at Bottom. The Seeds are larger than in the other Cranes-bills, sharp and pungent.

Mr. Ray found this in Sicily near Messina, where it grew wild; from whence he understood it was not peculiar to Crete: And Clusius says, it grows about Montpellier.

61. *Geranium Maritimum, annuum, laciniatum, acu longissima.* Martine, annual, jagged Cranes-bill, with a very long Bill. *Geranium supinum Botrys folio, acu sursum spectante.* Bocc. Mus. Part. 2. Tab. 145. *Geranium Botrys folio.* Ejusd. Tab. 109.

This is an early Plant, a Span long, lying upon the Ground, with many Branches extending every Way in a Circle of a Foot diameter. It bears Bills half a Span long, straight and looking upwards.

62. *Geranium crasso Batrachioideis folio.* Bocc. Mus. Part. 2. Tab. 128. Cranes-bill with a thick Crowfoot Cranes-bill Leaf. *Geranium supinum, rotundo Batrachioideis, crasso, tomentoso folio, radice rufescente, longius radicata.* Ejusd. pag. 160.

It grows about a Palm long, and lies upon the Ground. It bears Leaves resembling those of the *Ranunculus Batrachioides*, but they are small, roundish, and woolly. The Flowers have a Wine Smell, to which succeed small Beaks. The Root is thick, reddish within, and perennial. It is found near Otranto in the Kingdom of Naples, not far from Casini. D. Peppe la Gatta.

63. *Geranium minimum, Chamædryoides.* Bocc. Mus. Part. 2. Tab. 128. The smallest Germander-like Cranes-bill. *Geranium strium, minimum, supinum, Alpinum, Chamædryoides, flore albo, variegato.* Ejusd. 160.

It is a low Plant, and smaller than any other Species of Cranes-bill. It bears small Germander Leaves, like those of *Alfina foliis Triflaginis*. Lob. The Flower is white and variegated. It is found on St. Michael's Mount

in *Corfica*, in the *Summer*, and is about half a Span high.

64. *Geranium Petrarum*, *Cicutæ folio*, radice crassa. *Bot. Monsp.* Rock *Cranes-bill*, with a *Hemlock Leaf*, and a thick Root. *Geranium foetidum*. *Park.* 709. *Lob. Illustr.* 134.

This *Cranes-bill* bears several hairy green Leaves, finely cut in on the Edges into many Parts, from among which rise two or three slender hairy Stalks set at the Joints with a few small Leaves, and three or four somewhat large reddish Flowers above, like the other Sorts, smelling somewhat sweet in our Gardens by Transplantation, but strong in the native warmer Climates; after which come the Seed-vessels, which are somewhat long, strong and stiff. The Root grows down deep, of a reddish Colour on the out-side and white within, and smells much stronger than the Leaves or Flowers, and shoots forth several Heads of Leaves at the top.

Parkinson says, it grows on the North Side of Mount *Lupus* near *Montpelier*. *Mr. Ray* sought for it there in vain; but that skilful Botanist *Dr. Magnol* gathered it, and shew'd it him.

Lobel, in his Illustration of Plants describes it thus: It has, says he, a very thick, reddish black Root; Leaves a Palm long; and a little hairy; Stalks a Palm high, and Flowers of a delightful blue Colour marked with many dark Stripes.

Dr. Magnol found it to have the same Smell as the *Angustifolium acis longissima*, and not to stink so much as to make one Swoon, as *Lobel* says.

65. *Geranium Hispanicum*, magna radice, *Cicutæ folio* crassiori. *Schol. Botan.* Spanish *Cranes-bill*, with a big Root, and a thick *Hemlock Leaf*.

66. *Geranium Africanum*, arborecens, *Abisci folio* rotundo, *Carlinæ* odore. *H. L. B.* Tree African *Cranes-bill*, with a round *Marsh-mallow Leaf*, and a *Carlina Thistle Smell*.

67. *Geranium Africanum*, frutescens, *Malvæ folio* laciniato, odorato. *H. L. B.* Shrub African *Cranes-bill*, with a jagged sweet-smelling *Mallow Leaf*.

68. *Geranium Africanum*, *Alchimillæ hirsuto folio*, floribus albidis. *H. L. Bat.* Afri-

can *Cranes-bill*, with a *Ladies-mantle* hairy Leaf, and white Flowers.

69. *Geranium Africanum*, *Betonicæ folio* laciniato & maculato, floribus incarnatis. *H. L. Bat.* African *Cranes-bill*, with a jagged and spotted Leaf, and carnation Flowers.

70. *Geranium Africanum*, *Betonicæ folio* procumbens, floribus parvis, eleganter variegatis. *Pluk. Almag. Bot.* Lying African *Cranes-bill*, with a *Betony Leaf*, and small Flowers beautifully variegated.

71. *Geranium Africanum*, noctu olens, tuberosum & nodosum, *Aquilegiæ foliis*. *H. L. Bat.* African bulbous and knotted *Cranes-bill*, that smells in the Night, with *Columbine Leaves*. *Geranium Ethiopicum*, noctu olens, radice tuberosa, *Aquilegiæ foliis*. *Breyn. Cent.* 1. 127.

It has a long, bulbous, thick Root, that is somewhat ligneous, of a pale green Colour, and furnished with some Fibres: The Stalks are upright, two Foot high, ash-coloured, smooth, ligneous, and thickish at the Joints; on both Sides of which are set Leaves resembling those of *Columbine*, which are thickish, but cut into fewer and larger Segments. The Flowers, which are five-leav'd, are collected into an Umbell, and look sometimes upwards and sometimes downwards, of a Box-colour, and sometimes of a decayed purple Colour, breathing a most delicious Smell from Evening to Morning. The Seeds are five in Number and beaked, and covered with a moderate, white, silken Down.

It is propagated both by the Seeds and the Knots.

72. *Geranium Africanum*, noctu olens, *Aquilegiæ folio*, flore incarnato rubente. *Pluk. Phytog. Tab.* 186. *Fig. 5.* African *Cranes-bill* that smells in the Night, with a *Columbine Leaf*, and a reddish carnation Flower.

73. *Geranium Africanum*, noctu olens, flore rubro, *Anemones folio* angustiori. *Pluk. Phytog. Tab.* 186. *Fig. 6.* African *Cranes-bill* that smells in the Night, with a red Flower, and an *Anemone* narrow Leaf.

74. *Geranium Africanum*, *Uvæ crispæ folio*, floribus exiguis, rubellis. *H. L. Bat.* African *Cranes-bill*, with a *Rasp-berry Leaf*, and small red Flowers.

This small Species of *Cranes-bill*, says *Herman*, with a slender fibrous Root, sprang up with us from *African Seeds*; with a great many Stalks, and slender, jointed Branches lying upon the Ground, reddish on the under Part, and greenish on the upper. At each Joint stand Leaves, sometimes two opposite to one another, which are smooth, of a delightful green Colour, like the Leaves of *Rasp berry*, but four times smaller, and more finely cut. At the Rise of these comes forth a small Foot-stalk, about a Finger's length, sustaining one, two, three, or four small, five-leav'd, red Flowers; under each of which stands a slender Foot-stalk, with a quinque-partite Flower-cup, which incloses a Beak with five little Husks, in which are contained five small Seeds like the other Species.

75. *Geranium Africanum*, noctu olens, flore ruberrimo, Anemones folio latiore. *Pluk. Phytog. Tab. 186. Fig. 5.* *African Cranes-bill* that smells in the Night, with a very red Flower, and a broad Anemomy Leaf.

76. *Geranium Africanum*, *Coriandri folio*, floribus incarnatis, majus. *H. L. Bat.* Great or *African Cranes-bill*, with a *Coriander Leaf*, and *Carnation Flowers*. *Geranium Aethiopicum*, *Myrrhidis folio*, tertium, flore magno striato. *Breyn. Cent. 1. 129.*

This Species sends up Stalks a Foot, and a Cubit high, which are hairy, partly green and partly reddish, jointed, branched, at the Juncures of whose Joints are annexed two cartilaginous Finns, and Leaves somewhat hairy adhere to long Foot-stalks, being divided into many Segments, notched, and somewhat reddish round the Edges, having a middle Countenance betwixt the Leaves of *Geranium Apulum Coriandri folio*, Col. and those of *Geranium triste*, Corn. There are a few flesh-coloured beautiful Flowers in an Umbell, marked with purple Stripes, composed of five large Leaves, which are narrow at bottom, and standing in long hairy Flower-cups that are divided into five Segments: To which succeed beaked Fruit, and Seed like that of *Geranium Apulum Coriandri folio*.

This and some other Species were sent from the *Cape of Good-Hope* to *Dr. Beverningh*.

77. *Geranium Africanum*, *Coriandri folio*, floribus incarnatis, minus. *H. L. B.* Smaller *African Cranes-bill*, with a *Coriander Leaf*, and *Carnation Flowers*.

The first Leaves of this and the former Species that come from the Seed are roundish, short, moderately jagged; but in Time they become longer, and are cut into more Segments, which in this smaller Species appear thinner, narrower, and not at all hairy. The Flowers are somewhat smaller: The Seeds and all the rest are like those of the preceeding *Cranes-bill*.

78. *Geranium triste* five *Indicum*, noctu olens. *Park. Theat. 709.* Sweet *Indian Cranes-bill*. *Geranium triste*. Corn. 110.

It has a Root like that of purple *Spiderwort*, composed of many cohering Fibres that swell into Knots. It rises out of the Ground with Shoots a Palm high. The Stalk is round, hairy, tender and very weak, not without Knots, but jointed at the Distance of three Fingers. From the Joints come forth four or five Leaves in all, which at first lie upon the Ground, are somewhat hairy, divided into several Segments, in the Form of *Dropwort*; but are shorter, flatter, softer, and much larger: Their middle Nerve, which they call a Rib, is of a purplish Colour, but the rest dark green. On the Top of the Stalk sits a thick Umbell. The Flowers differ nothing in Shape from the rest of this Genus; for they consist of five Leaves, as many *Stamina*, and a Pointal, like *Herb Robert*; but are of a Box-colour, and a double purple Spot, as it were of a Grape, stains every Leaf; the *Stamina* and Pointal being of the same Colour with the succeeding Bill. When the Flower decays, the Pointal becomes longer and sharper, resembling a Crane's Bill, in the Bottom of which there are five small roundish Seed-bags. When these little Cells gape, through Ripeness, the reddish oblong Seeds drop out. In the Night the Flower has an unexpressibly sweet Smell, but in the Day none at all: For it seems to despise the Influx of the shining Sun to that Degree, that it has no Smell the whole Day; whereas on the appearing of the Moon, it breathes a most agreeable Smell like Musk; as if it offered Incense to that Luminary; and this Smell continues even in a stormy Night till the Morning, and vanishes immediately upon the appearing of the Sun. This Plant has an acid Taste, that is very agreeable to the Palate; and therefore it may be reckoned among the Number of Pot-herbs: For it has

the Faculty of cooling and moistning Nourishment. It is reported, that its Roots are brought to the Tables of the *Barbarians* at their best Entertainments or Feasts, as Earth-Chestnuts and other such bulbous Roots with us. It flowers almost the whole *Summer*; nor does it lose all its Leaves in the *Winter*, but by the Carelessness of those that look after it.

79. *Geranium Africanum*, noctu olens, radice tuberosa, foliis Pastinacæ incanis lanuginosis, latioribus, flore pallide flavescente. *H. L. B.* African Cranes-bill that smells in the Night, with a bulbous Root, hoary, downy, broad Parsnip Leaves, and a pale yellowish Flower. *Geranium Ethiopicum*, noctu olens, radice tuberosa, foliis Myrrhidis latioribus. Breyn. Cent. 1. 126.

It shoots down a tuberous Root of a decayed purple Colour, very large and thick, which is furnished with thick Knobs not much unlike the young Roots of Carrots both in Colour and Shape; and before it breaks forth above-ground it sends up several Shoots a Palm high, that put forth Leaves like those of *Geranium triste Cornuti*, but larger and more rugged. Out of the Bosom of these rise Stalks a Foot high and better, which are round, naked, divided by three or four Joints at a good Distance from one another, that are fringed with a leafy Border, on each of which is to be seen a Leaf, that is much smaller than the lower ones that are next to the Earth, especially the nearer it stands to the Top of the Stalk. Next follow the Flowers, which show themselves on the Top of the Stalks and Foot-stalks, which is radiated with some Leaves; being ranged in Nines or Tens in an Umbell, somewhat larger than the Flowers of *Geranium triste Cornuti*, which turn to long Fruits resembling a Crane's Bill, and containing oblong Seed of an olive Colour.

80. *Geranium Africanum*, noctu olens, radice tuberosa, foliis Pastinacæ incanis, lanuginosis, angustioribus. *H. L. Bar.* African Cranes-bill that smells in the Night, with a bulbous Root, and hoary, downy, narrow Parsnip Leaves.

81. *Geranium Africanum*, Althææ folio, parvo flore. African Marsh-mallow-leaved Cranes-bill, with a small Flower.

82. *Geranium Creticum*, humifusum, foliis sabrorundis, laciniatis, acu longissima.

Candy lying Cranes-bill, with roundish jagged Leaves, and a very long Beak.

83. *Geranium Chium vernum*, Caryophyllatæ folio. Vernal Cranes-bill of Chios, with Avena Leaves.

84. *Geranium orientale*, Columbinum, flore maximo, Asphodeli radice. Oriental Doves-foot Cranes-bill, with a very large Flower, and an Asphodel Root.

85. *Geranium orientale*, Columbinum, magnis floribus, pediculis longis insidentibus. Oriental Doves-foot Cranes-bill, with large Flowers sitting upon long Foot-stalks.

86. *Geranium orientale*, tuberosum, flore parvo. Oriental bulbous Cranes-bill, with a small Flower.

87. *Geranium orientale*, Moschatum, Absinthii folio. Oriental Musk Cranes-bill, with a Wormwood Leaf.

88. *Geranium orientale*, Batrachioides, amplioribus foliis, flore maximo. Oriental Crowfoot Cranes-bill, with larger Leaves, and a very big Flower.

89. *Geranium orientale*, Batrachioides, tenuioribus foliis, flore maximo. Oriental Crowfoot Cranes-bill, with smaller Leaves, and a very large Flower.

90. *Geranium orientale*, Batrachioides, Aconiti folio, flore variegato. Oriental Crowfoot Cranes-bill, with a Wolfsbane Leaf, and a variegated Flower.

Geranium comes from γέραν & a Crane; because the Fruit of this Herb is shaped like a Crane's Bill.

This Plant, in the main, has a reddish Colour, which made the Antients call it *Ruberta*, or *Rubertiana*; but afterwards by Corruption it was called *Rupertiana* and *Robertiana*; and from thence came the French and English Name *Herb Robert*.

Of all this vast Number of *Cranes bills* there is hardly any more in use than the *Geranium Robertianum dictum*, alias *Gratia Dei Germanorum*; and of this the Leaves only. It is temperate in heating and cooling; it dries moderately, is somewhat astringent, cleanses, resolves coagulated Blood in the Body, is proper for Wounds, by stopping the Blood, and cleansing the Wounds. The external Use of all sorts of *Geranium* is common in Cataplasms to be applied to the Soles of the Feet with Salt and Vinegar, in order

order to allay a feverish burning Heat; it is likewise applied to chapped Breasts, and to dissolve coagulated Milk. *Schrod.*

The Decoction of *Herb Robert* is used for cleansing the Ulcers of the Privy-parts, as well as for chapped Breasts. The Decoction of it in Wine taken inwardly resolves the Blood. Its distilled Water is likewise commended against the Cancer, and even the bruised Herb in Form of a Cataplasme, &c. *Hoffman.*

Both the *Geranium Columbinum*, and *Robertianum* are vulnerary, as well taken in vulnerary Potions, as applied externally. It stops a Flux of Blood, and resolves coagulated Blood: It also cleanses Wounds, and expells the Stone and Sand in the Bladder, and quiets the Pains of the Cholick, according to the Testimony of *Lobel.* The Decoction in Wine allays arthritick Pains; and it is commended in Fomentations for the Rupture.

The simple Decoction of *Herb Robert* is applied to cancrus Breasts often with good Success. *Fabr. Hildan. Chirurg.*

I was told of a certain Woman that had a Cancer, who had Relief in her Pain from this Water alone. *C. Hoffman.* The Cowherds give the Decoction of this Plant to Cattle that piss Blood.

The Leaves of the 21st Species here described are stiptick, and have a somewhat saltish Taste, and redden blue Paper as lively as Alum; and therefore it is probable, that they are not vulnerary for any other Reason but because of their aluminous Salt, which is united with abundance of Sulphur and Earth. This however does not hinder but that this Plant has something urinous in it; for by a Chymical Analysis, besides several acid and oily Liquors, it yields also a little volatile concrete Salt. The Roots and the Leaves of this Species of *Cranes-bill* are used in Pissans, and vulnerary Broths, and in Decoctions that are proper for stopping both internal and external Fluxes of Blood and Humours. *Tournefort.*

The 30th Species has a saltish, stiptick, clammy, herby Taste: It reddens blue Paper like the former; in all probability this is done by

an aluminous Salt dissolved in more clammy Phlegm. The Juice of this Species boiled with Sugar is good for the Bloody-flux: Its Extract has the same Verrue; and the Leaves are used in Potions, Decoctions, Plaisters, Oils and Ointments, which are prepared for Contusions and Wounds. *Id.*

The 49th Species is stiptick, saltish, and a little sourish; it smells of *Bitumen*, and reddens blue Paper pretty much. It is likely that it contains a Salt pretty much of the Nature of Alum, mixed with a little fetid Oil, and a very small Portion of *Sal ammoniac*: For by a Chymical Analysis, this Plant yields abundance of Acid, but little Oil, and no volatile concrete Salt, but a little urinous Spirit: This *Cranes-bill* is very astringent, and very vulnerary. Wine, in which the bruised Leaves have been steeped for a whole Night, stops all sorts of Hemorrhages or Fluxes of Blood. *Id.*

The ordinary *Doves-foot Cranes-bill* is found by good Experience, and *Lobel* and others also note it to be singular good for the Wind-Cholick and the Pains thereof in the lower Belly, as also to expel the Stone and Gravel in the Kidneys, if the Decoction of it be drank, or if the Person affected sit in it as in the Bath, or be fomented with it. The Decoction in Wine is an exceeding good Wound Drink for any that have either inward Wounds, Hurts or Bruises, both to stay the bleeding, to dissolve and expel the congealed Blood, and to heal the Parts, as also outward Sores, Ulcers or Fistula's, perfectly to cleanse and heal them; and for green Wounds, many do but bruise the Herb, and apply it to the Place wheresoever it be, and it will quickly heal them. The same Decoction in Wine fomented to any Part pained with the Gout, gives much Ease: It does the same also to all Joint-Aches, or Pains of the Sinews. It is most certain, that *Gerard's* Experience in curing Ruptures is known to be singular (tho' not as of his own Invention) who used for this Purpose either the Powder or the Decoction of this Herb, or both together, which relieved both young and old, if they continued long enough in the use of them. *Park.*

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