

THE
INDIGENOUS DRUGS OF INDIA ;
OR,
SHORT DESCRIPTIVE NOTICES

OF THE
MEDICINES,
*Both vegetable and mineral, in common use among
the Natives of India.*

BY
KANNY LOLL DEY.

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THE
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MEDICINES,

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BY

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TICAL SOCIETY OF GREAT BRITAIN.

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P R E F A C E.

IN offering this little volume to the Public, I consider it right to mention that it was, a few months ago, sent to Paris as a Descriptive Catalogue of a collection of Native Drugs, which I had the honor of contributing to the Universal Exhibition then open in that city. While the Catalogue was yet in press, some portions of it were shewn by me to Dr. Green, the Principal Inspector General of the Medical Department, who thought that it might also serve a useful purpose by being placed in the hands of medical men in this country; and kindly encouraged me to print a larger number of copies than I originally contemplated, offering, on behalf of Government, to take six hundred copies for distribution among Government medical officers, both European and Native, at the Presidency and Mofussil stations. I am thus indebted to Dr. Green's liberal views for the appearance of this work in its present form. I consider it, however, due to those into whose hands it may fall, that I should disclaim any originality as regards the descriptions given of the several articles included in it. They have been mostly taken, though after much condensation, from Sir. W. B. O'Shaughnessy's Bengal Dispensatory, Waring's Therapeutics, and his list of Indigenous Drugs, Drury's Useful Plants of India, the Madras Quarterly Journal, the Indian Annals of Medical Science, and various other works to which reference was necessary. But it has been my delight to prosecute the study of Native Drugs, for some years past, with the aid of these works, and to note the points in which, according to my experience, any of the Drugs, or any classes of them, presented properties different to those described in the

works above-mentioned. I have thus been able to give, in addition, in the present volume, the results of my personal observations, in respect to the articles already brought under the cognizance of English Physicians, and to introduce into it many new articles, of which the use and properties had been hitherto either wholly unknown or not sufficiently ascertained.

The subject has been before me continuously for the last five or six years. My first collection of Native Drugs was sent to the International Exhibition held at London, in the year 1862, and my latest inquiries were embodied in a series of papers contributed by me to the Indian Medical Gazette, under the heading of "Indigenous Drugs." Most of the descriptions there given have been also transferred *verbatim* to these pages, though it would have been more satisfactory, if I could have found leisure to write them anew and enter into greater details. But the work as now given to the Public is yet far from being perfect, as it is impossible that in a field so vast, one can, at any time, bring his enquiries to a close—new objects will constantly spring up to view unexpectedly enlarging and modifying the field of investigation. But this much can be said at present, that the following pages embrace all the Native Drugs which have found a place in the British Pharmacopœia, and nearly all which are in daily use as remedial agents among the Natives of this country, and I shall feel myself sufficiently rewarded for my labour in thus bringing them together, if the present volume excites enquiry among my brother practitioners as to the uses of the articles brought to their notice, for, by this means, while their real properties will be more definitively known, the value of doubtful ones will be either confirmed or altogether exploded. The great end to be desired in this important study is the substitution, as far as possible, of cheap Native Drugs for costly English Medicines, and it can be

attained only by a careful and diligent investigation of the properties of the former in all parts of the country wherever they may be found. The following are some of the most important Drugs, arranged in their physiological classification, which I consider call for an immediate trial of their properties; I have myself, within my limited practice, found them as beneficial and efficacious as English Medicines.

ANTHELMINTIC.

- Butea Frondosa* (Seeds)—*Puluspapra*.
Conyza Anthelmentica—*Somraz*.
Embelia Ribes—*Birunga*.
Rottlera Tinctoria—*Kamola-gooree*.
Wrightia Antidysenterica (Seeds)—*Indrajab*.

ASTRINGENTS.

- Accacia Arabica*—*Bablar-chaul*.
Cæsalpinia Sappan—*Bukum*.
Diospyros Embryopteris—*Gaub*.
Embelia Officinalis—*Amla*.
Garcinia Mangostana—*Mangosteen*.
Terminalia Chebula—*Hurree-tukee*.
Wrightia Antidysenterica (Cortex)—*Koorchee*.

DEMULCENTS AND EMOLLIENTS.

- Arachis Hypogæa*—*China-badam*.
Cocos Nucifera—*Narcole*.
Cydonia Vulgaris—*Behedanna*.
Gynocardia Odorata—*Chaulmoogra*.
Ocimum Basilicum—*Babooye-tool-she-beej*.
Plantago Ispaghula—*Esupgool*.

DIAPHORETICS AND EMETICS.

- Calotropis Gigantea*—*Akund*.
Crinum Asiaticum—*Burro-hanoor*.
Viola Odorata—*Banopsha*.

DIURETIC.

- Cissampelos Hexandra*—*Neemooka*.
Cocculus Cordifolius—*Gulunchu*.
Cucumis Sativus—*Susha*.
Cucumis Utilissimus—*Kankoor*.
Dipterocarpus Lævis—*Gurjun-tel*.
Pedalium Murex—*Burro-gokhoora*.

EMENAGOGUE.

- Aristolochia Indica*—*Isarmool*.

PURGATIVES.

- Clitoria Ternatea*—*Upara-jita*.
Ipomœa Turpethum—*Teoree*.
Pharbitis Nil—*Kalla-danah*.
Pharbitis (Shapussundo?)—*Shapus-sundo*.
Terminalia Chebula—*Jangie-Hurrietukee*.
Trichosanthes Dioica—*Pulbull*.

RUBEFACIANTS.

- Anacardium Occidentale*—*Hidglee-badam*.
Moringa Pterygosperma—*Sujeena*.
Mylabris Cichorii—*Telini*.
Plumbago Rosca—*Lall-chittra*.
Plumbago Zeylanica—*Chitta*.
Psoralea Corylifolia—*Bucchee*.
Semecarpus Anacardium—*Bhalatuk*.

SIALOGOGUE.

- Anthemis Pyrethrum*—*Akurkora*.

Tonic—Bitter.

- Aconitum Heterophyllum*—*Atees*.
Andrographis Paniculata—*Kalmeg*.
Azadirachta Indica—*Nim*.
Berberis Lycium—*Rosout*.
Cæsalpinia Bonduc—*Kutkurinja*.
Clerodendron Viscosum—*Bhant*.
Cocculus Cordifolius—*Guluncha*.
Coptis Tecta—*Mismectecta*.
Corchorus Olitorius—*Lalitapat*.
Luffa Echinata—*Bundul*.
Oldenlandia Biflora—*Khet-papura*.
Pneumonanthe Kurroo—*Kurroo*.
Soymda Febrifuga—*Rohun*.

—— Nervine.

- Nardostachys Jatamansi*—*Sumbul*.

For facility of reference, I have given an index of the technical, as well as the vernacular, names of the Drugs, the former appearing in large, and the latter in small, type, at the head of each article in the text.

In the preparation of this work, I have received much valuable assistance from my friend and colleague Baboo Dwarkanauth Mookerjee, House Physician, Medical College Hospital, who has taken equal interest with me in this subject, and to whom my most cordial acknowledgments are, therefore, due. There are no doubt others who equally recognise the importance and value of Native Drugs, and they, I hope and trust, will contribute their quota to the furtherance and progress of this interesting study.

K. L. DEY.

CALCUTTA MEDICAL COLLEGE, }
October, 1867. }

ERRATA.

Page 15, first line, for "Hypogaca," read Hypogœa.

- „ 18, 27, 31, and 43, omit "or" between the Vernacular names.
 - „ 40, 17th line from top, for "Rannunculaccæ," read Ranunculaceæ.
 - „ 46, 8th line from top, for "Zingebracææ," read Zingiberaceæ.
 - „ 46, 20th line from top, for "Zingeberaceæ," read Zingiberaceæ.
 - „ 50, 9th line from bottom, for "Tooslec," read Toolsec.
 - „ 54, 14th line from top, for "are" read is.
 - „ 54, 15th line from top, for "those" read that.
 - „ 114, 11th line from bottom, for "Anteperiodic," read Antiperiodic.
 - „ 128, 7th line from top, for "Saponis," read Sapo.
-

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THE
INDIGENOUS DRUGS
OF
INDIA.

ABELMOSCHUS ESCULENTUS.

DHENROOS, BHINDEA, RAM-TURAY.

The plant *Abelmoschus Esculentus*, of the natural order *Malvaceæ*, has long been naturalized in, and extensively cultivated throughout, India.

The whole plant, particularly the capsules, is replete with much mild mucilage. The pods are largely used by the natives of this country for culinary purposes.

Medicinal properties.—Nutritious, demulcent, and emollient. The young capsules, when boiled, yield a considerable quantity of mucilage, which is used for thickening soups. It acts also as a mild and pleasant demulcent in allaying the constant irritation of cough, so that it is used both as a remedial agent and an article of food. The leaves are employed in preparing emollient poultice.

Preparation.—Decoction :

Young capsule ... 4 ounces.
Water ... one pint.

Boil twenty minutes and strain.

Dose—*ad libitum*.

Price, 2 annas per lb.

ABRUS PRECATORIUS—*Country Liquorice.*

GHUNCHI, KOONCH, CHUN-HATTEE, KAKA-CHINCHI.

The root of the *Abrus Precatorius*, of the natural order *Leguminosæ*, is used fresh or dried. It contains a moderate quantity of sugar, and is a perfect substitute for liquorice in every respect.

Medicinal properties.—Demulcent. The watery extract is very useful in relieving obstinate cough. It can be used like liquorice as an adjuvant to decoctions or irritating vegetable substances.

Preparation.—Extract—Koonch root in coarse powder ; macerate in water for 12 hours, and percolate ; heat it to the boiling point ; strain and evaporate. Dose, half to one drachm.

Syrup.—Fresh bruised koonch root ... 2 ounces.
Water ... one pint

Boil for half an hour, strain, add sugar-candy 8 oz., boil till it thickens.

Price, 3 annas per lb.

ACACIA ARABICA.

BABULA, GURSOONDER, KALIKEKER.

The gum obtained from *Acacia Arabica*, of the natural order *Leguminosæ*. This tree is very common all over India, and yields abundance of gum of similar, though somewhat inferior, properties to those of the *Acacia Vera*. The bark is a powerful astringent, and its decoction is largely used as a substitute for that of Oak bark, with great success and efficacy.

Price, 1 rupee 4 annas per lb.

ACACIA CATECHU.

KHAIR, KUTHI.

The extract prepared from the root and leaves of *Acacia Catechu*, of the natural order *Leguminosæ*. It is manufactured in large quantities, and by different methods, in different parts of India. According to Davy's Analysis, the best sample of it has been found to consist of tannic acid 54, extractive 34, mucilage 6, and earthy matter 5 per 100. It is available in the Indian bazars in square or round pieces weighing from 2 to 4 oz., and in some places in large masses also.

Medicinal properties.—Astringent and tonic, much used in medicine, in combination with aromatic and earthy substances, in the form of powder and tincture.

Price, 2 rupees per lb.

ACALYPHA INDICA.

MOOKTAJHOOREE.

The plant *Acalypha Indica*, of the natural order *Euphorbiaceæ*, is a common annual in Indian gardens. The decoction of the leaves is reported to be a laxative, and the root bruised in water, a cathartic.

Price, 5 annas per lb.

ACHYRANTHES ASPERA.

UPANG, CHIR-CHIRA.

The plant *Achyranthes Aspera*, of the natural order *Amarantaceæ*, is very common in all parts of India, and is highly extolled by the natives as an antidote

for the bites of poisonous animals. The seeds are used in hydrophobia and in cases of snake-bites. The flowering tops, rubbed with sugar and made into pills, are administered to persons bitten by mad dogs. The leaves rubbed into a pulp are applied to the bites of scorpions and centipedes, with alleged efficacy.

Medicinal properties.—Diuretic. Acts very mildly on the kidney, and tends to increase its secretion. Has been occasionally found efficacious in dropsical effusions depending on renal diseases. The natives, after burning the plant, mix its ashes with conjee water and give it to patients affected with dropsy. To saline substances present in the ashes may be ascribed the greater portion of its beneficial effects.

Preparation.—Decoction :

Upang ... 2 ounces.

Water ... 1½ pints

Boil down to a pint, and strain.

Dose.—1 to 2 oz., repeated according to effect.

Price, 4 annas per lb.

ACONITUM HETEROPHYLLUM.

ATEES.

The root of the plant *Aconitum Heterophyllum*, of the natural order *Ranunculaceæ*, has been long known in Indian medicine as a tonic and aphrodisiac. It occurs in abundance in the lofty mountains of Choor, Shalma, and Kedarnauth; but Captain Lowther says, that Atees grows chiefly in the Deccan, especially in Guzerat, whence it is

conveyed to Indore. It is chiefly used in the form of powder, which is a fine white substance, with an intensely bitter taste, and from which a very bitter extract may be prepared. The dried tuber of *Asparagus sarmentosus* (Sootamooli), an insipid and perfectly inert substance, is commonly sold in the bazars of Bengal under the name of Atees. The true Atees is intensely bitter, slightly astringent, and with abundant farina which is free from any noxious quality. It has been largely used in the Medical College Hospital and in other medical charities of Bengal and Northern India, and the experience of eminent authorities has led to its being considered as a valuable febrifuge and bitter tonic in the absence of quinine, though it cannot supply the place of the latter. Mr. Heming of Oraie, however, advocates its use with great ardour.

Price, 2 rupees 8 annas per lb.

ACONITUM NEPALLUS.

KATBISH, MITHAZUHER.

The root of this plant, *Aconitum Nepallus*, of the natural order *Ranunculaceæ*, grows in abundance in the Himalyan mountains, and is procurable at a very cheap cost in the Indian market. Besides its extensive use in Indian medicine, it is frequently resorted to as a poison for criminal purposes. All the species of Aconite, especially *Ferox* and *Nepallus*, exercise a very deleterious influence on the animal economy, which is attributable to the presence of the alkaloid aconitina, and have, therefore, been fully treated in all works on toxicology.

Price, rupees 2 per lb.

ACONITUM ?

KALKOOT.

The root of a species of Aconite differing from Nepallus and Ferox by its peculiar smell, is much used in native medicine. Its virulent properties are similar to those of Aconitum Ferox.

Price, 2 rupees per lb.

ACORUS CALAMUS.

BOCH.

The plant Acorus Calamus, of the natural order Acoraceæ, is a native of Amboyna, Ceylon, Nepal, Kasyah Hills, Malabar, Bourbon, &c. The whole plant is aromatic, but the root alone preserves the flavor on drying. By Tromsdorf's analysis, it was found to contain reddish yellow volatile oil, resin, extractive, gummy resinous matter, muriate and phosphate of potassa, inuline and fibre. Its taste is rather bitter, but stimulant and spicy. The Hindoos use it very much as a stimulant in flatulency and other similar affections. Also used for relieving cough.

Price, 6 annas per lb.

ADHATODA VASICA.

BAWKOSH.

The plant Adhatoda Vasica, of the natural order Acanthaceæ, grows wild all over Bengal. All the parts of this plant are bitterish and slightly aroma-

tic, and supposed to be antispasmodic. The wood is soft, and much esteemed for making charcoal for gunpowder.

Price, 8 annas per lb.

ÆGLE MARMELOS.

BEL, SRIPHUL.

The tree *Ægle Marmelos*, of the natural order *Aurantiacœ*, is very common, and considered holy by the Hindoos, in almost all parts of India. It flowers during the hot season, and the fruit ripens after the rains. Its leaves are ternate, and hence one of its vernacular names the *Tripatra*. Rheede says, a decoction of the bark of the root is considered in Malabar to be very useful in hypochondriasis, melancholy, and palpitation of the heart; and that the leaves are used in decoction in asthmatic complaints. The same author adds, that the unripe fruit is of use in diarrhœa. The fresh juice of the leaves is largely used in Bengal as an antibilious and febrifuge, and also as a vehicle of other febrifuges. The unripe fruit is roasted and eaten with treacle or sugar in chronic dysentery and diarrhœa. It is also divided into small parts and preserved after being dried in the sun. A decoction of this, the *bel sooti*, is in frequent use among the natives as a drink for the sick, especially for cases of fever and diarrhœa. The fruit contains a large quantity of tannin. The ripe fruit is nutritious, warm, laxative, and of a very delicious taste and exquisite fragrance. Its aperient and deterative qualities and its efficacy in removing habitual costiveness have borne rigid test. The natives also make from the ripe fruit a nice delicious and refrigerant *sherbet*, which they use largely. Its use in chronic dysentery and diarrhœa is eminently

successful, and accordingly various forms of it are daily manufactured and consumed to an enormous extent. The jelly-like mucus of the seeds is for some purposes a very good cement.

Price, 4 annas per lb.

ÆSCHYNOMENE SESBAN.

JOINTE.

The *Æschynomene Sesban*, of the natural order Leguminosæ, is very common in India, and yields an excellent charcoal used at the Gunpowder Works at Ishapore. Leaves are much used as a poultice to promote absorption.

Price, 4 annas per lb.—Leaves.

AGATHOTES (OPHELIA) CHIRAYTA.

CHIRETTA.

The plant *Agathotes Chirayta*, of the natural order Gentianaceæ, is produced chiefly in the lower ranges of the Himalyas, and is gathered and dried for use when the flowers begin to decay. All parts are extremely bitter, and are identical in composition with the common gentian, containing, according to Battley, malic-acid, bitter, extractive, resinous matter, gum, and salts. It is highly esteemed as a tonic and febrifuge all over India, and as 'one of the few articles,' says Dr. Macpherson, 'of the Indian Materia Medica, which is in every respect an adequate substitute for the corresponding European articles, and there is no occasion for any gentian being imported into India.' It is a very useful vehicle for other remedies, and given in the form of infusion or tincture.

Price, 8 annas per lb.

AGAVE AMERICANA.

RUKUS.

The roots of the plant *Agave Americana*, of the natural order *Amaryllidaceæ*. This plant has been long imported from America and naturalized in India. Its leaves yield fibres almost equal to the best Russian hemp, and manufactured at a very slight expense. From its root also is obtained a ligneous fibre much used in Madras. This is the common American aloe plant. The roots are used to adulterate sarsaparilla.

Medicinal properties.—Diuretic. The roots of this plant are employed as a diuretic, and are said to possess the anti-syphilitic virtue of sarsaparilla; but whether they really do so is doubtful.

Price, 2 annas per lb.

ALEURITES TRILOBA.

JUNGLEE AKHROTE.

The nuts of the plant *Aleurites Triloba*, or the *Juglans Camirum*, of the natural order *Euphorbiaceæ*. It is a native of the Moluccas, Malay Island, and Assam. It is also cultivated in Lower Bengal. The kernels are much relished in this country; they have the taste of English walnuts; they yield by expression a large proportion of a very agreeable oil, which is supposed to be a good substitute for rape oil. A gummy substance exudes from the seeds, which the natives of Tahiti are very fond of chewing.

Medicinal properties.—The kernels are supposed to possess aphrodisiac properties, probably from their containing a large quantity of oleaginous substance, which gives a general tone to the system. A mild aperient action has also been ascribed to its oil. Dr.

Waring cites Dr. O'Rorke as an authority for considering it as a very mild and safe purgative, if taken in doses of one to two ounces.

Price, 8 annas per lb.

ALHAGI MAURORUM.—*Hebrew Manna.*

JAWASI, SHOO-THUR-KHAUR.

The shrub *Alhagi Maurorum*, of the natural order Leguminosæ, is a native of the desert of Egypt, Syria, Mesopotamia, Persia, and India. There exudes from the leaves and branches of this shrub a sweet saccharine substance, called the *turunjebun*, which many pharmaceutical writers identify with the Hebrew manna. The Indian plant, however, does not yield any secretion like the natives of the other countries mentioned.

Medicinal properties.—Aperient. Resembles the ash-manna in all respects.

Price, 4 rupees per lb.

ALOE INDICA.

GHRITO-KOOMAREE.

The plant *Aloe Indica*, of the natural order Liliaceæ, and several other species of the same genus (aloes) have been described as possessing, in common properties belonging to that plant. The bitter inspissated juice constitutes the medicinal aloes, Mussubber of the Bazar.

Medicinal properties.—Purgative. The aloes produced in this country are an adequate substitute for pharmacopœial aloes.

The viscid mucilage obtained from fresh leaves is used by the natives as an excellent demulcent, especially in gonorrhœa.

It enters into the composition of manifold purging pills used by Koberajes and other Native practitioners.

Price, 12 annas per lb.—Mussubber.

ALPINIA GALANGA.

KOOLINJUN.

The tubers of *Alpinia Galanga*, of the natural order *Zingiberaceæ*, growing abundantly in Travancore, South Concan, and Chittagong, are faintly aromatic, pungent, and somewhat bitter, and are sold by the name of galangal by native druggists. They are used as a substitute for ginger.

Price, 4 annas per lb.

ALSTONIA SCHOLARIA.

CHATINN.

The plant *Alstonia Scholaria*, of the natural order *Apocynaceæ*, is very abundant in Assam, Travancore, and on the Coromandel Coast. The bark is a powerful tonic. Dr. Gibson, of Bombay, has found it useful as a febrifuge. It is also much used in bowel complaints; bruised and mixed with water is applied to ulcers, also over rheumatic pains. Its bark boiled in oil and mixed with bruised cotton seeds, is applied to the ears in deafness.

Price, 8 annas per lb.

ALUMEN SULPH.

FOTEKEEREE.

An astringent; used both externally and internally; also used in the arts as a mordant.

Price, 8 annas per lb.

AMMONIÆ HYDROCHLORAS.

NISSADUL.

Used as an alterative, externally, in lotion; also used in the arts for soldering and tinning, &c.

Price, 8 annas per lb.

AMOMUM CARDAMOMUM.

ILLACHEE.

The Amomum Cardamomum, of the natural order Zingiberaceæ, grows in Java, Sumatra, and the mountainous parts of India. Its seed is an aromatic and carminative stimulant, but less heating than many other spices, and forms one of the ingredients of the masticatory used throughout India. Both in Indian and European medicine, it is a frequent adjunct to other stimulants, bitters, and purgatives.

Price, 1 rupee per lb.

ANACARDIUM OCCIDENTALE.

HIDGLEE-BADAM, KAJOO-BADAM.

The nuts of Anacardium Occidentale, of the natural order Terebinthaceæ. The kernel has a sweet and agreeable taste, and is eaten with relish, when roasted. The oil obtained from it by expression is exactly similar to olive oil. A gum that exudes from the bark resembles Gum Arabic, but is partially soluble in water, and consists of true gum and bassorine. The pericarp of the nut contains a black acrid oil, called *Cardole*, and is a powerfully vesicating agent. The oil is also applied to the floors and wooden rafters of houses to prevent the attack of white-ants.

The oil from kernel.—Specific gravity 0.9160. Soluble in ether, partially in alcohol.

Medicinal properties.—The oil from kernel is nutritious and emollient. Internally used as a demulcent in form of emulsion; can be used in pharmacy like olive oil. The gum may be used as a substitute for Gum Arabic.

Price, 2 annas per lb.—Nuts.

ANDROGRAPHIS (JUSTICIA) PANICULATA.

CALAPNATH, KALMEG, CREAT, MUHA-TITA.

The plant *Andrographis Paniculata*, of the natural order *Acanthaceæ*, grows wild all over Bengal. The whole plant is intensely bitter, and yields its properties readily to water or spirit. It is a powerful bitter tonic, and has been successfully used in cases of dysentery and diarrhœa. This is the basis of the well-known domestic medicine '*aloie*,' which is a composition of carminatives formed into pills with the fresh juice of its leaves, and preserved after being dried in the sun. It is frequently given with advantage to infants suffering from flatulency and diarrhœa caused by defective digestion. It also forms the principal ingredient of the celebrated French nostrum the "*drogueamere*."

Price, 4 annas per lb.

ANDROPOGON MURICATUM.

KHUSKHUS.

The plant *Andropogon Muricatum*, of the natural order *Graminaceæ*, is a native of the Coromandel Coast and Bengal. An infusion of its root is used medicinally as a gentle stimulant, and a grateful drink in cases of fever. The roots are also made into fans, and being thereby worked into bamboo frames, are employed for the purpose of cooling the heated atmosphere in dwelling-houses during the

hot winds. On distillation with water, it yields a fragrant oil, the well-known *Khus-khus-ka-athur*, so much valued in English and Indian perfumeries.

Price, $\frac{1}{2}$ anna per lb.

ANTHEMIS NOBILIS.

BHABOONA-PHOOL.

The flower of the plant *Anthemis Nobilis*, of the natural order *Compositæ*, is a native of Europe and Persia, but available in all Indian bazars. It is a useful stomachic, antispasmodic, and tonic in dyspepsia and general debility. The warm infusion is used to promote the action of emetics. Externally an infusion or decoction, or cataplasm of the flowers, is used to relieve pain.

Price, 4 annas per lb.

ANTHEMIS PYRETHRUM.

AKURKORA.

The root of *Anthemis Pyrethrum*, of the natural order *Compositæ*, is the common pellitory. The *Pyrethrum* root is used as a masticatory to promote the flow of saliva. It is powerfully irritant, and has been found successful in tooth-ache, and is said to have effectually cured obstinate cases of spontaneous salivation.

Price, 12 annas per lb.

ANTIMONII TER-SULPHURETUM.

RUSSANJUN, SOORMA.

Used by the native practitioners as an astringent in hæmorrhages, especially uterine; also by the native women for painting the tarsus of the eye.

Price, 8 annas per lb.

ARACHIS HYPOGAEA.

CHINA-BADAM.

The legumes of *Arachis Hypogæa*, of the natural order Leguminosæ. The seeds yield by expression about 43 per cent, of a clear straw-colored edible oil, which is an excellent substitute for olive oil. It possesses a faint odour, and a very mild, agreeable taste. It is highly esteemed for domestic purposes, and does not become rancid so quickly as other oils. It can be used for all purposes in pharmacy in place of olive oil.

The oil.—Specific gravity 0.9242.

Solubility.—Very sparingly soluble in alcohol; readily soluble in ether and chloroform.

Medicinal properties.—It is held by the natives of this country as an excellent aperient and emollient. All that can be said of it is, that it answers very well in place of olive oil.

Price, 1 anna per lb.

ARECA CATECHU.

SOOPARI.

The tree *Areca Catechu*, of the natural order Palmaceæ, a native of the Eastern Islands, and extensively cultivated in Bengal, is the most graceful and elegant among Indian palms. The fruit (a nut) is one of the constituents of the famous masticatory, the betel of the East. Slices of the nut, with little catechu and several spices, according to the means and taste of the individual, are wrapped up in a leaf of the *Chavica betel*, and being smeared with little shell-lime, are chewed by the Natives.

Price, 1 anna 6 pie per lb.

ARGEMONE MEXICANA.

SHEAL-KANTA, FRENTEE-DHUTOORA.

The seeds of the Argemone Mexicana, of the natural order Papaveraceæ.

The plant itself is well known, having prickly thistle-like leaves and a bright yellow flower; it grows wild almost everywhere in Bengal, and is a troublesome weed.

The seeds yield a large quantity of oil, nearly as much as the common mustard seed. The oil is of a pale yellow colour, and clear; resembling that of the poppy. It is mild in its action; is readily procurable, and so cheap that a considerable saving has been effected from its introduction by Dr. Thompson into the Malda jail, for lighting purposes, in place of mustard oil.

Medicinal properties.—Laxative and stomachic. Dr. Jameson, Civil Assistant Surgeon, Oude, informed me that he used it in one to two ounce doses as a laxative to the many prisoners under his care, and that he considered it as a cooling laxative. Dr. Bonavia speaks very favorably of its efficacy in colic and also as an external application in ringworm.

Price, 2 annas per lb.—Seeds.

ARISTOLOCHIA INDICA.

ISARMOOL.

The root of Aristolochia Indica, of the natural order Aristolochiaceæ, grows all over Bengal, possesses a nauseous bitter taste, and is reported to be a powerful emenagogue and antiarthritic. It is also highly valued as the best antidote for snake-bites, being

used both externally and internally. Mixed with honey, it is also given in white leprosy; and the leaves in fever.

Price, $4\frac{1}{2}$ annas per lb.

ARSENIC, AND ITS SALTS.

SANKO, HORITAL, DURMOOJ, &c.

The arsenic and its salts are brought to the Indian Market from China, Sumatra, Java, &c. It enters largely into the composition of the Native drugs; and is used to cure leprosy, snake-bite, obstinate intermittent fever, &c. All are extensively employed both medicinally and criminally as poison.

Price.

White Arsenic, <i>sanko suffaid soom-</i> <i>bul, semulkur</i>	... Re. 1 per lb.
Yellow Sulphuret of Arsenic, (orpi- ment) <i>harital, jorode sanko</i>	... Re. 1 per lb.
Red Sulphuret, Arsenic (realgar) <i>Moonchal, Durmooj</i>	... Re. 1 per lb.

ARTIMESIA INDICA.

DONNA, GUNDHUMAR, MUSLAROO.

The plant *Artimesia Indica*, of the natural order *Compositæ*, a native of Nepal, is the Indian worm-wood. Leaves are much used in scents. Yields a volatile essential oil on distillation, known as *Donna-ka-attur*.

It is substituted for *Artimesia Absnithium*, though it is less powerful in its effects.

Price, 5 annas per lb.—Leaves.

ASPARAGUS SARMENTOSUS.

SUFFAID-MOOSTU, OR SOTHO-MOOLI.

The bulbous root of *Asparagus Sarmentosus*, of the natural order *Liliaceæ*, is eaten by the natives of Madras and Ceylon in various forms.

Medicinal properties.—It is reputed as a good demulcent and alterative tonic. Is used as a remedy, under a curious idea that it prevents small-pox from becoming confluent. Its properties, as known at present, are doubtful.

Price, 5 annas per lb.

ASTERACANTHA LONGIFOLIA.

KANTA-KOOLIKA, GOCHRU, IKSHUGANDA.

The roots of the plant *Asteracantha Longifolia*, of the natural order *Acanthaceæ*. This plant is commonly met with in Bengal and other parts of India, by the sides of corn fields and in other damp places.

Medicinal properties.—Diuretic and tonic. The roots are administered in decoction, in dropsical affections, and gravel. The leaves are also used as a diuretic.

Preparation.—Decoction :

Root of kanta koolika... One ounce.

Water ... Oj

Boil and strain—should measure 14 ounces.

Dose.— $\frac{1}{2}$ ounce to $1\frac{1}{2}$ ounce, three times a day.

Acetum :

Leaves newly dried ... 2 ounces

Distilled vinegar ... 16 ounces

Macerate for three days, press, strain.

Dose.— $\frac{1}{2}$ to 1 ounce.

Price, 2 annas per lb.

ASTRAGALUS VIRUS.

KOTILLA.

The *Astragalus Virus*, of the natural order Leguminosæ, is a very common plant in the Himalyas, and yields a very excellent gum *Tragacanth*, which, according to Tournefort, exudes, during the hot season, through the bark, in slender threads, which gradually increase, harden, and form tears or worm-like pieces. Besides this, there are several other species of *astragalus*, which are common in the higher level of the Himalyas, but none of them has yet been found to yield *Tragacanth*. This gum forms the basis of some medicinal lozenges and styptic powder, and is extensively used as a demulcent in gonorrhœa. In the arts it is highly valued as an ingredient in dye-stuffs and a glaze for calico and silks.

Price, 10 annas per lb.

AZADIRACHTA INDICA.

NIM.

The *Azadirachta Indica*, of the natural order Meliaceæ, is a large tree growing in abundance all over Bengal. Every part of this tree, especially the bark, is bitter; the bark is also astringent; the leaves are bitter and very nauseous. From the ripe pericarp of the fruit, a very bitter fixed oil is expressed; the trunk of the tree yields gum, and the young trees, when tapped, yield a saccharine sap or toddy, capable of undergoing the vinous fermentation. The leaves are employed all over India as poultices to tumors and open sores, and also to disperse buboes. The bark is a very valuable bitter tonic, and the native practitioners use it largely in fevers and rheumatism in combination with aromatics. A decoction of the bark is also given in Java

as a vermifuge. The oil is also supposed to be anthelmintic, and is applied externally to foul ulcers, and used as a liniment in rheumatic and spasmodic affections and in headache from exposure to the sun. The wine or toddy is believed to be stomachic, the dose being an ounce-and-half every morning. It forms an adequate substitute for Cinchona. Mr. Piddington prepared from it a crystallized sulphate which he termed Sulphate of Azaderine, but nothing is known about its medicinal properties. Dr. C. Macnamara advocates the use of the watery extract of the dry leaves in cases of Leprosy.

Price, 4 annas per lb.

BALSAMODENDRON MUKUL.

GOOGUL.

The tree *Balsamodendron Mukul*, also called the *Commiphora Madagascarensis*, of the natural order *Terebinthaceæ*, is a native of East Bengal and Assam. This tree is said to yield the googul, the Indian *Bedellium*, but probably there are several species of the same genus which yield the same product such as *B. Agallocha*. It is collected in the cold season by making incisions in the tree and letting the resin fall on the ground. This accounts for the dirty condition in which it is found in the shops. It is a gum resin, and is sometimes used in place of myrrh. The odour of googul is more faint and agreeable than that of myrrh. It is largely used by the Hindoos as an incense in their worship of gods and goddesses, before whose image they generally burn it, by which the whole of the surrounding atmosphere is impregnated with its agreeable smell. This gum resin is held by the Native practitioners as a purifier of blood; also alterative and pectoral.

Price, 6 annas per lb.

BALSAMODENDRON MYRRHA.**HEERABOL.**

This is a solid gum resin obtained from the bark of the tree *Balsamodendron Myrrha*, of the natural order *Terebinthaceæ*. It exudes in a soft oily state, but soon hardens by exposure to air. Dr. Pereira speaks of three varieties of this article, which differ from each other in external appearance, but are possessed more or less of the same medicinal properties. The first variety occurs in tears either distinct or conglomerated, usually covered with fine powder or dust, and is of a pale reddish yellow or red or reddish brown color.

The second is obtained in distinct small tears or grains not larger than a pea. This has been supposed to consist of tears of myrrh with gum arabic and mastic or juniper resin. The third variety, formerly called East Indian, is found in dark pieces of the size of a walnut. The British market is chiefly supplied with this drug from the East Indies. It has an aromatic and balsamic odour and a bitter, acrid, and aromatic taste. It possesses tonic and stimulant properties, and has been for a long time reputed as an efficacious emenagogue, but its action as such is now known to be uncertain. It is also used externally as an astringent and stimulating application to old, foul, and indolent ulcers, and also as a wash for the mouth and gums, and gargle in ulcerated sore-throat.

Price, 2 rupees per lb.

BASSIA LATIFOLIA.**MOWHA, MOULA, GILAUNA.**

The seeds of the *Bassia Latifolia*, of the natural order *Sapotaceæ*.

The trees are extensively cultivated in Upper India for their flowers and fruits. The seeds yield by expression a large quantity of concrete oil, used by the natives for culinary purposes and for lamps.

The spirit produced from the flower, when carefully distilled, very much resembles good Irish whiskey.

The oil remains in a concrete state at a temperature of 95° ; above 110° it is fluid.

Specific gravity 0.9727.

Soluble in ether, partially in alcohol.

Medicinal properties.—Emollient. The kernel is said to be demulcent. The oil can be used for emollient ointment ; the spirits can be used in pharmacy.

Price, 3 annas per lb.—Oil:

BERBERIS LYCIUM.

ROSOUT.

It is a watery extract, prepared from the sliced root, stem, and branches of different species of *Berberis*, as *B. Lycium*, *B. Aristata*, &c., of the natural order *Berberaceæ*. This plant grows abundantly in the Hymalyas, and an extract from it is prepared in large quantities in Nepaul and Dhoon at about eight annas per seer. It is extensively used by the native practitioners as a tonic, and chiefly as a local application in affections of the eye and eye-lids. In chronic ophthalmia it has been used with success when combined with opium and alum. Dr. O'Shaughnessy gives the results of his experiments on this drug in the following terms: "Rosout is best given as a febrifuge in half drachm doses, diffused through water, and repeated thrice, or, still more frequently, daily. It occasions a feeling of agreeable warmth at the epigastrium, increases appetite, promotes

digestion, and acts as a very gentle but certain aperient. The skin is invariably moist during its operation." Messrs. Bathgate and Co., of Calcutta, have prepared an essence of this drug, which has been used with great success. Its active properties are due to the presence of a bitter principle *berberite*. Dr. C. R. Francis advocates the use of its tincture very freely in cases of obstinate fevers.

Price, 8 annas per lb.

BOSWELLIA THURIFERA.

GUNDABEROSA.

This is a gum-resin obtained from *Boswellia Thuripera* of the natural order *Terebinthaceæ*. This tree is a native of the mountainous tracts of Central India and very common in Shahabad. *Gundaberosa* has a balsamic and resinous odour and a bitter and balsamic flavour. It is chiefly used externally as a rubefacient stimulant, but has been occasionally given as an astringent and diaphoretic. It is largely consumed as an incense in religious ceremonies.

Price, 6 annas per lb.

BUTEA FRONDOSA.

DHAK, PULUSPAPRA, KINGSHOOKA.

These are the seeds of *Butea Frondosa*, of the natural order *Leguminosæ*. It is a native of the mountainous districts of India, and common all over Bengal, where it is called the palas or kingshooka. In the Upper Provinces it is known by the name of Dhak. It is a middle sized tree and has a very gaudy appearance when in flowers, which is of a bright scarlet color and gives a fine yellow dye. The

bark furnishes a very important exudation, the *Palas-gond*, or Bengal kino. In the hot season incisions are made on the bark, and a red fluid substance exudes, which gradually hardens and becomes paler. It has been found very rich in tannic and gallic acids, and is identical both in chemical properties and medicinal effects with the officinal kino. It possesses most powerful astringent effects and has been given successfully in many forms of chronic diarrhœa in 2 or 3 grain doses. Externally it is very useful as an astringent application. The seeds are extensively used as a powerful anthelmintic, specially in combination with others of the same class, with great success.

Price, 7 annas per lb.

CÆSALPINIA (GUILANDINA) BONDOC.

KUTKURINJA, NATAKURINJA, KUTKULEJA, NATAPHUL,
GUDGAGA.

The creeper *Cæsalpinia Bonduc*, of the natural order Leguminosæ, is a climbing shrub common all over Bengal, Bombay, Travancore, and the Coromandel. The seed is a powerful tonic, and a very valuable febrifuge; the kernels are very bitter. Reduced to powder, and mixed with black pepper, they are used in 3 to 6 grain doses in ague, with remarkable success. Powdered minutely with castor oil, they are applied externally in hydrocele. In Amboyna, the root is considered a good tonic, and the seeds anthelmintic. In Cochin China, the leaves are considered to be a deobstruent and emenagogue, and the root to be an astringent. The nuts are also used as beads and marble. In Scotland, where they are frequently thrown upon the sea-shore, they are known as molucca beans. In intermittent

fevers and other malarious disorders, it can be used in place of quinine, when the latter is unavailable.

Price, 12 annas per lb.

CÆSALPINIA SAPPAN.

BUKUM.

The plant *Cæsalpinia Sappan*, a large tree, of the natural order Leguminosæ, a native of Siam and Ainboyna, affords the well-known Sappan of Bengal commerce. The solid, heavy, hard, and compact wood *bukum* constitutes a very important article of trade in Calcutta, its chief use being as a dye stuff for cotton fabrics. It also possesses powerful astringent properties, and can be substituted in medicine for log-wood. It contains a principle resembling hæmatin.

Price, 4 annas per lb.

CAFFEA ARABICA.

KUWA.

The albumen of the seeds of the plant *Caffea Arabica*, of the natural order Cinchonaceæ, constitutes the aromatic coffee of commerce, which, when dried and roasted, is an agreeable tonic and stimulant. The cultivation of the staple has extended in a surprising manner, and very good samples can be obtained from Nuggur, Wyanand, the Pulney hills, and the virgin forest land of the western ghauts. Its use as an anti-hypnotic is well known. In cases of poisoning by opium, a strong decoction of coffee has been found to be of great use. It is also used occasionally in various other complaints of a nervous character.

Price, 1 rupee per lb.

CALOTROPIS GIGANTEA.

AKUND, MUDAR, URKA.

The *Calotropis Gigantea*, of the natural order *Asclepiaceæ*, is a large shrub, common in many parts of India, growing abundantly in waste ground among rubbish and ruins, and other similar places. The root, bark, and inspissated juice are used extensively for their emetic, diaphoretic, alterative, and purgative properties, which have been known for many centuries to the Indian practitioners, and have of late attracted much notice from European physicians. The dried bark of the root has a peculiar bitter nauseous taste, and when given in powder from $\frac{1}{2}$ a drachm to one drachm doses, produces free vomiting after an interval of from twenty minutes to an hour, generally causing much nausea, and in some cases inducing cathartic operation. In doses from 2 to 5 grains, taken every half an hour, it proves nauseant, powerfully diaphoretic, and after several doses, gently cathartic. In this drug we have an adequate substitute for *Ipecacuanha*, and, when combined with opium, a good representative of the officinal Dover's Powder is prepared. In dysentery it may be safely substituted for *Ipecacuanha*, though a double dose is generally required. The native physicians use the root, bark, and dried milk in small doses in a multitude of disorders as lepra elephantiasis or secondary syphilis, and in several spasmodic affections. Dr. Royle testifies to its efficacy as an alterative in incipient leprosy and in numerous diseases of the skin.

Price, 4 annas per lb.

CAMPHORA GLANDULIFERA.

NEPAL SASSAFERAS.

The tree *Camphora Glandulifera*, of the natural order *Lauraceæ*, is a native of Nepal. This article

is identical in every respect with the American substance. It is used by the rich natives as a constituent of their favorite masticatory. It is, like the pharmacopœial article, stimulant and diaphoretic, which virtues are generally attributed to the presence of an essential oil.

Price, 1 rupee per lb.

CANARIUM COMMUNE.

JUNGLEE-BADAM.

The plant *Canarium Commune*, of the natural order *Terebinthaceæ*, is a native of the Eastern Archipelego, where it is extensively cultivated for the sake of its fruit, which has almost the taste of almond. An abundance of limpid oil is obtained from the bark. The oil has a pungent turpentine smell, congealing in a buttery camphoraceous substance, and has all the properties of balsam of copaiba. It is also said to yield the East Indian gum elemi. An oil is extracted from the nuts, which, in Java, is used in lamps, and when fresh is mixed with food.

Price, $1\frac{1}{2}$ annas per lb.

CANNABIS INDICA.

GUNJAH, CHURRUS, OR BHANG.

The leaves and resin of the plant *Cannabis Indica*, of the natural order *Cannabinaceæ*, are imported into Calcutta chiefly from Mirzapore, Bhurtpore, Nepal, and Ghazeepore. It is also cultivated in Jeypore and some parts of Bengal. The narcotic effects of this article are well-known in South Africa, South America, Egypt, Asia Minor, Turkey, India, and the adjacent territories of Burmah, Siam, and Malacca. In all these countries it is used in various forms, as the ready agent of a pleasing intoxication. There

are three different parts of the plant which all have narcotic properties:—(1) *Churrus*, a resinous juice, which exudes and concretes on the leaves, the stems, and flowers. It is collected either by coarse cloth, or leather being brushed against the plant. The resin, which adheres to the cloth or the leather, is afterwards scraped off, and kneaded into balls, which sell from 5 to 6 rupees a seer. It is smoked like tobacco to produce intoxication. (2) *Gunjah*.—This name is applied to the dried hemp plant which has flowered, and from which the resin has not been removed. A resinous extract composed of *Churrus*, with a green coloring matter chlorophylle, can be prepared by treating it with alcohol. It sells in the Calcutta bazars from 5 to 7 rupees the seer, and is used for smoking chiefly. (3) *Bhang*, *Subgee*, or *Sidhee*, are the larger leaves and capsules without the stalks, which are used for making intoxicating drinks, and a sort of intoxicating conserve or confection called *majoom*.

As a medicine, the Indian hemp is found to be narcotic, anodyne, and antispasmodic. It produces a peculiar kind of delirium, and that state of the nervous system which pathologists call catalepsy. Dr. O'Shaughnessy gave it a fair trial in tetanus, hydrophobia, painful neuralgia and rheumatic affections, cholera, &c. In tetanus it is still used by Indian practitioners with greater success than with any other remedy. It has a peculiar action on the uterus, and Dr. Churchill recommends it as a valuable medicine in some forms of amenorrhœa, dysmenorrhœa, and menorrhœgia. It increases appetite and excites aphrodisiac inclinations. Two preparations of this article are officinal—the tincture and the extract.

Price

Of Subgee	...	... 12 annas per lb.
Of Gunjah	...	... 3 rupees ,,
Of Churrus	...	... 4 rupees ,,

CAPSICUM ANNUUM.

GACHMERICH, LUNKA.

The fruit of the plant *Capsicum Annuum*, of the natural order *Solanaceæ*, owes its properties to the presence of an acrid oil called capsin, which melts, when heated, and is then dissipated into fumes of a very irritating nature. *Capsicum* is more important as a condiment than as a remedial agent. It is a powerful stimulant, and is used with great success in dyspepsia and other disorders of the stomach caused by the atony of the viscus. It is also used in low forms of intermittent fevers, and both internally and as a gargle in malignant sore-throat. In relaxed sore-throat and chronic hoarseness, its use as a gargle has been very efficacious. It has been used in the forms of powder and tincture, both concentrated and weak, and lozenges. There is another species *C. Frutesceus*, the fruit of which possesses similar properties. This species is very extensively cultivated in Bengal.

Price, 7 annas per lb..

CARICA PAPAYA.

PEPEYA.

The tree *Carica Papaya*, of the natural order *Papayaceæ*, a native of America, has long been domesticated in India, and is now found common all over the Peninsula. A milky juice exudes from the rind of the fruit more copiously when it is unripe. It is supposed to possess powerful vermifuge properties, and resembles the white of an egg in its chemical composition. The seeds are also considered vermifuge. The unripe pepo is used in curries, and the ripe as a dessert in India. The milky juice is added to meat, with an idea that it removes its toughness, and makes it remarkably tender.

Price, 3 annas per lb.

CARUM ALBUM.

JEERAH. .

CARUM NIGRUM.

SHAJEERAH.

The fruits of these plants, of the natural order Umbelliferæ, are in common use among the natives of India, both as a condiment and a medicine. Besides its use as a carminative, it is often combined with purgatives and several other native medicines to promote and correct their actions. The former is more common and available in all the bazars at a very cheap cost.

Price.

Jeerah	... 7 annas per lb.
Shajeerah	... 1 rupee 4 annas per lb.

CARYOPHYLLUS AROMATICUS.

LUNGA, LAVANGA.

The tree *Caryophyllus Aromaticus*, of the natural order Myrtaceæ, is a native of New Guinea, Amboyna, and the Moluccas. The unexpanded flowers of this tree are the cloves which are universally employed as spices. In India, these are used both as a condiment and a masticatory. They belong to the hot and stimulating aromatics, and are given to correct flatulence and excite languid digestion, but chiefly as an adjunct to bitter tonics, or as a corrective of purgatives. The volatile oil is also much used by perfumers, and dentists apply it to carious teeth to cauterize the exposed nerve. It is also used in combination with others of the same class as a stimulating embrocation. Powder, tincture, infusion, and oil are the various forms in which cloves are used.

Price, 6 annas per lb.

CASSIA ALATA.

DAD-MURDON, VELEYTI-AGHATI

These are the leaves of the plant *Cassia Alata*, of the natural order *Leguminosæ*, an indigenous garden plant, which grows in abundance all over Bengal and many other parts of India. The native name* is derived from its efficacy in curing ringworm. The fresh leaves, when bruised and mixed with lime juice, have been found to act with decided efficacy in ringworm and other similar affections of the skin. The whole plant is used by the Tamul as a remedy in venereal, in poisoned bites, and as a general tonic.

Price, 2 annas per lb.

CASSIA ELONGATA.

SONA-PAT OR SONA-MUKEE.

The dried leaves of *Cassia Elongata*, of the natural order *Leguminosæ*.

Various other species of the genus *Cassia* are produced in this country in great abundance ; their medicinal properties are very well known to native practitioners, who largely use the leaves, in combination with other drugs, for their purgative properties.

Medicinal properties.—Purgative. Used in the same way and on similar occasions as the officinal senna. It is rarely used alone, but as a vehicle or adjunct to other aperient drugs.

Price, 12 annas per lb.

* *Dad* (ringworm), *murdon* (embrocation.)

CASSIA (CATHARTOCARPUS) FISTULA.

SONDAL, AMULTAS, PYKASSIE.

The pulp of the pods of Cassia Fistula, of the natural order Leguminosæ. Its medicinal properties have been ascribed to the sugar contained in it in large quantities, (about $\frac{3}{8}$ ths of the whole.)

Medicinal properties.—The pulp is soft; it has a cooling and gentle effect; and is an agreeable laxative. It is best used as a base for purgative electuaries containing more active ingredients, as, when used by itself, it requires to be taken in large doses, from 4 drachms to 1 oz., to produce effect. The powdered seeds and leaves are also possessed of similar properties, but of a much milder character. The seeds are to be taken in 4 or 5 drachm doses.

Price, 9 annas per lb.

CINNA MOMUM ALBIFLORUM.

TAUZ.

The tree Cinnamomum Albiflorum, of the natural order Lauraceæ, grows in Malabar, Sumatra, Java, and several other parts of the Eastern Archipelago. The bark has an aromatic agreeable odour, but weaker than cinnamon. Its taste is sweetish, mucilaginous, rather acrid, bitterish, and tenacious; powder, of chamois leather color. The bark is much used for adulterating true cinnamon, but its mucilaginous character, when chewed, easily distinguishes it from the genuine variety. Its leaves (or those of the C. Tamala) are very much used as a condiment, and available at a nominal cost in all the Indian markets. Both bark and leaves possess carminative and stimulating stomachic properties.

Price, 3 annas per lb.

CINNAMOMUM ZEYLANICUM.

DALCHEENEE.

The tree *Cinnamomum Zeylanicum*, of the natural order Lauraceæ, though a native of Ceylon and Java, has been cultivated in various other parts of the world. The Ceylon variety, however, surpasses the growth of any other locality. It is a grateful aromatic stimulant. Besides being cordial and carminative, it possesses a degree of astringency. It is used in diarrhœa, and as a tonic in dyspepsia and flatulence. It is chiefly used as an adjunct to bitters, purgatives, and astringents, to which it imparts an agreeable flavor. An essential oil is the active principle. Several preparations of this drug are official in the British Pharmacopœia.

Price, 10 annas per lb.

CISSAMPELOS HEXANDRA.

NEEMOOKA.

The root of *Cissampelos Hexandra*, of the natural order Menispermaceæ. This plant is very common in all parts of Bengal. Several other species of this genus are used, like the above, as remedial agents, *viz.* :

Cissampelos Hernandifolia, native of Chittagong.
 „ *Caapeba*, native of Moluccas.
 „ *Tetrandra*, native of Amboyna.
 „ *Convolvulacea*, native of Coromandel.

The Neemooka of Bengal has been used with decided advantage in place of *Pareira-brava*.

Medicinal properties.—Diuretic, tonic, and slightly aperient. In gravelly complaints, chronic inflammation, ulceration of the kidneys and bladder, and other similar nephritic diseases, great benefit is

derived from its use. It is very cheap, and a perfect substitute for Pareira-brava so much spoken of by Sir B. Brodie. The other species mentioned above also possess like properties, but to a smaller degree.

Preparation.—Decoction :

Neemooka root	...	...	1 oz.
Water	...	...	20 oz.

Boil for 15 minutes and strain; should measure $13\frac{1}{2}$ oz.

Dose.— $\frac{1}{2}$ to 2 oz., three times a day.

Liquid Extract :

Preparation similar to that of Pareira-brava, as recently introduced in British Pharmacopœia.

Price, 3 annas per lb.—Root.

CITRUS AURANTIUM.

KUMLANEMBOO.

and

CITRUS LIMONUM.

PATEENEMBOO.

These plants, of the natural order Aurantiaceæ, are found very common in many parts of India. The fresh acid juice of both these hesperidia is not only used as an antiscorbutic, but also in making agreeable cold beverages. The dried peels are extensively used in pharmacy to flavor mixtures, tinctures, syrups, &c. They contain an essential oil which is a valuable carminative and stimulant, but it is chiefly used for the sake of its pleasant odour. The peels are used in tinctures, infusions, and syrups.

Price, 4 annas per lb.—Dried Peels.

CLITORIA TERNATEA.

UPARA-JITA, DHANATTOR, KALIZER-KA-JUR,
CAWHA-THENTHI.

The root of the Clitoria Ternatea, of the natural order Leguminosæ. It is very common in all parts of Bengal, and is cultivated in almost all flower gardens.

Medicinal properties.—Brisk purgative. The root was described by Dr. Anneslie as possessing emetic properties and proving efficacious in croup; but from experiments made in the Calcutta Medical College Hospital, by Sir W. B. O'Shaughnessy, an alcoholic extract, in doses of 5 to 10 grains, was found to act as a brisk cathartic.

Price, 8 annas per lb.—Root.

CLERODENDRON VISCOSUM.

BHANT, GHENTOO.

The Clerodendron Viscosum, of the natural order Verbenaceæ, is a wild hedge plant, common all over Bengal, Malabar, and the S. Concans. The fresh juice of the leaves is used as a vermifuge, and also as a bitter tonic and febrifuge in malarious fevers, especially when they occur in infants. The root of this plant beaten up and mixed with wine or sour milk is given internally in colic; externally for drying up pustular eruptions on the skin.

Price, 2 annas per lb.—Leaves.

COCCULUS CORDIFOLIUS.

GULUNCHA, GUDANCHA, GURCHA.

The Cocculus Cordifolius, of the natural order Menispermaceæ, is a very common twining shrub, running over the highest trees. Those that

grow on the neem tree are valued more than others. In gonorrhœa, the natives of Bengal use the large spongy roots to relieve the burning felt in passing water. They mix up the fresh root with stale rice, gruel, and sugar, and then use it as a drink. A decoction of Guluncha, called the *pachun*, and an extract, the *palo*, are also used by native practitioners in various disorders. "In several trials made at the College Hospital, the Guluncha was found to be a very useful tonic, but we could scarcely attribute to it any very decided febrifuge effect. The decoction or cold infusion used in the same manner as Sarsaparilla, was of very great utility in the treatment of several cases of chronic rheumatism, and of secondary venereal affections. Its action is decidedly diuretic and tonic in a very high degree." (B. Disp.) Its preparations are extract, tincture, infusion, and decoction.

Price, 2 annas per lb.

COCCULUS INDICUS.

KAKMARI.

The plant *Cocculus Indicus*, of the natural order Menispermaceæ, is a native of Malabar and the Eastern Archipelago. It is also called the *Anamirta Cocculus*. The fruit is poisonous, producing tetanic convulsions and coma like the acro-narcotics. It is never given internally, but used in the form of ointment in several affections of the scalp, and to destroy vermin. In Bengal, the natives kill fishes by poisoning the water with it. Its active properties are due to the presence of *picROTOËIN*, which is itself sometimes used as an ointment in cases like those mentioned above.

The only preparation in use is the unguntum *Cocculus*.

Price, 1 rupee per lb.

COCCULUS PALMATUS.

COLOMBO.

The plant *Coculus Palmatus*, of the natural order Menispermaceæ, is a native of the shores of Oizo and Mozambique, from which locality it was introduced into Madras. The root sliced transversely and dried, is common in the Indian bazars, being brought from Ceylon, where it comes from Africa. It is easily reduced to powder, which has a greenish tinge. It becomes browner with age, and deepens when it is moistened. It is a bitter stomachic and tonic, useful in cases of weakness of the digestive organs, and is generally given in convalescence from acute diseases, combined with alkalies or bismuth. It is one of the few bitters that can be prescribed with salts of iron.

Price, 3 rupees per lb.

COCCUS CACTI.—*Cochineal.*

CRING-DANNA.

Coccus Cacti, a native of India, is an hefnipterous insect chiefly used as a coloring ingredient. It has been supposed to possess anodyne and antispasmodic effects, for which it is occasionally used in pertusis, in half or one grain doses, three or four times a day. A tincture is also in use. *Dose.*—30 to 90 minims, twice a day.

Price, 8 rupees per lb.

COCOS NUCIFERA.—*Cocoanut.*

NARCOLE.

The fruit of the *Cocos Nucifera*, of the natural order Palmaceæ. The tree is one of the most ele-

gant Indian palms, remarkable for its fruit, which holds within its shell a delicious water, which is a favorite beverage of the people of Lower Bengal. It scarcely grows in the Upper Provinces of Hindustan, but is common in Ceylon and the Islands of the Indian Archipelago. The fruit, besides the cooling drink which it affords, is a very useful article of commerce. The shell, after being dried and scraped off, becomes the Indian *hooka*, which is used by all classes of natives for smoking tobacco. The dried coatings of the shell are formed into coir used in making ropes, floor-carpets, &c. The sticks gathered from the leaves of the tree form the Indian broom, which is used in sweeping the floors of native houses.

An oil is extracted from the kernel of the fruit, either by expression or by ebullition with water, which becomes concreté at a temperature below 69° , and fluid at about 74° . It is used extensively as a hair oil for promoting the growth of, and preserving and softening, the hair. Its odour and the rapidity with which it becomes rancid are, however, great objections to its employment as a cosmetic.

Specific gravity 0.9288.

Soluble in Alcohol and Ether.

Medicinal properties.—Nutritious and emollient. The oil has been used for various purposes in medicine and pharmacy. In native medicine it is the basis of several oils and ointments. In German pharmacy, it is preferred to lard for its less rancidity and more ready absorption when rubbed upon the skin, with less liability to produce changes in the substances with which it is associated. Dr. Theophilus Thomson has found it to possess the virtue of cod liver oil. It is nearly equal in properties to

olive oil. The milk of the tender fruit is refrigerant, and can be used with advantage for allaying gastric irritation.

Price, 4 annas per lb.—Oil.

CONVOLVULUS SCAMMONIA.

SUKMOONEYA.

The fruit of the *Convolvulus Scammonia*, of the natural order *Convolvulaceæ*, a native of Levant and Syria, recently discovered by Dr. Burn, in Kaira, in Guzerat, affords a concrete juice, which constitutes the Scammony of English markets and of Sukmoneya of Indian bazars. It is obtained by excision of the crown of the root, the juice of which, collected in shells, is suffered to concrete. It is generally adulterated with starch and several other impurities; the purest is known in commerce as Virgin Scammony. It is a powerful drastic purgative, more active and less unpleasant to the taste than jalap, but apt like it to occasion griping. In inflammatory and irritable states of the bowels, its use is contra-indicated. In dropsies, it can also be used as a hydrogogue cathartic. It enters into the composition of many purgative pills, and, in combination with calomel, forms a safe purgative for children and females.

Price, 2 rupees 8 annas per lb.

CONYZA (VERNONIA) ANTHELMINTICA.

SOMRAZ.

The *Conyza Anthelmintica*, of the natural order *Asteraceæ*, is an annual plant growing all over Bengal

and various other parts of India. Every part of this plant is intensely bitter, but the seeds are only used. They are bitter, and possess powerful anthelmintic properties. They have also been supposed to possess diuretic effects, and form an ingredient of a compound powder in snake-bites. An infusion of them is given on the Malabar Coast for coughs, and in cases of flatulency. Reduced to powder and mixed with lime juice, they are used to expel pediculi from the hair; also mixed with oil, are applied in scabies. The juice of the leaf is given to cure phlegmatic discharges from the nostrils.

Price, 3 annas per lb.—Seeds.

COPTIS TEETA.

MISMEETEETA.

The plant *Coptis Teeta*, of the natural order *Ranunculaceæ*, a native of the mountainous regions bordering on Upper Assam, enjoys a high repute among the Mishmees, Lamas, and the Assamese. The root of this plant is officinal. It is sent down to Assam in neat little baskets, with open meshes made of narrow strips of rattan, each basket containing about an ounce of small pieces of the root, from 1 to 3 inches long, and selling these at one-sixteenth of a rupee. It is not easily available in the Bengal markets, and is occasionally exposed for sale in the Upper Provinces. It has been extensively used both in the General and College Hospitals of Calcutta with great success, and can be said to possess all the powerful properties of the best English bitter tonics; but no proof has yet been obtained of its being a febrifuge. Under its influence, several patients recovering from acute diseases manifestly and very rapidly improved in strength. It is used in the forms

of powder, tincture, infusion, and extract. *Dose* of the powder 5 to 10 grains. Infusion, 1 to 2 oz. Tincture, 1 to 2 drachms. Extract, 2 to 6 grains. In this indigenous article, though a costly one, we have an adequate substitute for Columbo, which it resembles not only in its medicinal effects, but also in its physical properties. An essence of this drug has been recently brought forward for sale by Messrs. Bathgate and Co., of Calcutta.

Price, 1 rupee per lb.

CORCHORUS OLITORIUS.

LALITAPAT BLUNJEE-PAT, BHUNGEE BUNPAT.

The leaves of the *Corchorus Olitorius*, of the natural order Tiliaceæ, is an annual plant common in Bengal, where it is extensively cultivated for the fibres of its bark known as jute, which, like those of *Corchorus Capsulatus*, are employed for making a coarse kind of cloth, known as gunny, as well as cordage, and even paper. The dried leaves of this plant are sold in the market. A cold infusion is used as a bitter tonic, and is devoid of any stimulating property. Mr. Simon, of Assam, informs me, that it can be safely given to patients recovering from acute Dysentery to restore the appetite, and improve strength. Six grains of the powder, combined with an equal quantity of *Curcuma Longa*, has been used, in several instances, with much success, in acute Dysentery. It forms a cheap domestic medicine in a Hindu household.

Price, 3 annas per lb.

CORIANDRUM SATIVUM.

DHUNYA, KUSHNEEZ.

The seeds of *Coriandrum Sativum*, of the natural order Umbelliferæ, a herbaceous plant, is extensively cultivated in all parts of India for the seeds (generally

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called so, but in reality they are fruits), which are much used by the natives as an important condiment, and a necessary ingredient of their favorite masticatory. When unripe, the fruit possesses a very unpleasant odour, resembling that of bugs, but this changes rapidly as ripening proceeds. It contains an essential oil, to which it owes its aromatic odour. It is an excellent carminative and aromatic stimulant, and conceals the odour and flavour, and corrects the action of senna better than any other aromatic, for which it enters into the composition of many of the preparations of the latter drug.

Price, 2 annas per lb.

CRETA, (CARBONATE OF LIME.)

KHOREE MATEE.

Creta, or Carbonate of Lime, is a cheap article in the Indian markets. It is used as an antiacid and astringent, in doses of from 1 to 2 drachms. When combined with other aromatics and astringents, it is very useful in diarrhœa.

Price, 1 anna per lb.

CROCUS SATIVUS.—Saffron.

ZAFRAN, KEYSAR.

The plant *Crocus Sativus*, of the natural order Iridaceæ, a native of Asia Minor, has been naturalized in England, France, and many other parts of Europe, and is cultivated in Persia and Cashmere. The dried stigmata of the flower constitutes the saffron of commerce. These are picked up and dried on paper, either in a kiln, or by the sun. If compressed into cakes, it is called *cake saffron*, ordinary saffron

being called the *hay saffron*. It was once known as an exhilarant antispasmodic, emenagogue, and narcotic, but it is now very scarcely, if ever, used for its medicinal properties. It is chiefly used as a coloring principle, both in medicine and dietary, and as a corrective to various other medicines.

Price, 4 rupees per lb.

CROTON TIGLIUM.

JYPAL OR JUMALGHOTA.

The seeds of the plant *Croton Tiglium*, of the natural order Euphorbiaceæ. It is a native of Hindoostan, Ceylon, and the Moluccas. The oil, which possesses all the medicinal virtues of the seeds, is obtained in this country by expression of the kernels of the seeds. The nuts are said to be used in procuring abortion, and in criminal poisoning.

Medicinal properties.—Purgative. All parts of this *Croton*, says Sir W. B. O'Shaughnessy, are drastic and dangerous cathartics. The wood is used in minute doses in the Moluccas; the oil is the most powerful hydragogue cathartic, producing copious watery evacuations with great rapidity, one to two drops being sufficient to operate within half an hour.

The cathartic nature of the drug is known all over the East. But the seeds are only used by native practitioners, who prepare them variously, pretending that by certain preparations they are deprived of their poisonous qualities. They also throw the germ away, and add, as a corrective, different spices, especially cloves.

It is not a safe medicine for weak people, for children, or for the aged, but it is unobjectionable

in the cases of those possessed of a strong constitution, or on whom weaker medicines have little effect. If attended with griping or excessive action, this can be completely relieved by the free use of lime juice. Applied externally to the skin, the oil causes an eruption of painful pustules. The seeds, mixed with honey and water, are often applied to obstinate buboes, in native practice.

Dose of the oil from $\frac{1}{3}$ rd to 1 drop. One seed also makes a full dose.

Price, 8 annas per lb.—Seeds.

CUCUMIS COLOCYNTHIS.

INDRAYAN, BISHUMBA, MAKHAL.

The seed of the Bengal Colocynth, *Cucumis Colocynthis*, of the natural order Cucurbitaceæ.

This plant abounds in many parts of the Peninsula, as well as in Upper India.

Medicinal properties.—Sir W. B. O'Shaughnessy states, that the seeds of the Bengal Colocynth, in half drachm doses, produces decided cathartic effects. Dr. Waring ascribes an anthelmintic property to the oil extracted from the seed of the Indian Colocynth.

Price, 4 annas per lb.

CUCUMIS UTILISSIMUS.

KANKOOR, KUKREE.

and

CUCUMIS SATIVUS.

SUSHA, KHEERA.

The seeds of *Cucumis Utilissimus* and *Sativus*, both of the natural order Cucurbitaceæ.

These plants are indigenous in Bengal and other parts of India, their pepoo being largely used by the natives as edible fruits, and also for culinary purposes. The raw fruits are not easily digestible, especially when in the ripe state. The seeds yield by expression a bland nutritious oil.

Medicinal properties.—Diuretic. The powder of the toasted seeds, mixed with sugar, is used as a powerful diuretic, and is serviceable in promoting the flow of urine in cases of retention of that secretion, and for the passage of sand or gravel.

Dose of the powdered seeds.—One scruple to $1\frac{1}{2}$ drachm every third hour, till the secretion is established.

Price, 8 annas per lb.—Seeds.

CUPRI SULPH.

TOONTA.

A very common article in the Indian markets, and is generally used by the natives in making some kinds of astringent tooth-powders. It can be used as a ready emetic, is an excellent nervine tonic, and a good astringent, both externally and internally.

Price, 8 annas per lb.

CURCAS (JATROPHA) PURGANS.

BUG-BHERENDA.

The plant *Curcas Purgans*, of the natural order Euphorbiaceæ, grows in India, Havanna, and New Andalusia. The leaves warmed and rubbed with castor oil are used as a poultice to hasten suppura-

tion; the oil is chiefly used for lamps, and the seeds are excessively drastic. The milky juice, boiled with oxide of iron, makes a fine black varnish.

Price, 2 annas per lb.—Seeds.

CURCUMA LONGA.

HULDI, HARIDRA.

The root of the *Curcuma Longa*, of the natural order Zingiberaceæ. It is cultivated in all parts of India. It is stimulant and carminative, but less so than ginger, to which it is allied. The dose is from 5 to 20 grains, twice a day, for flatulency. The natives of India use it for culinary purposes, and sprinkle it in a powdered state over ulcers as a desiccant. Mixed with lime, it is very successfully applied by the natives to relieve pain from bruises.

Price, $1\frac{1}{2}$ annas per lb.

CURCUMA ZEDOARIA.

BUN-HALDI, SHUTEE.

The root of the *Curcuma Zedoaria*, of the natural order Zingiberaceæ, a native of Bengal and China, yields the round Zedoaria, all kinds of which resemble ginger in their medicinal qualities, but are inferior to it in strength and agreeableness of flavour. It can be used like ginger as a carminative and aromatic stimulant in flatulency and dyspepsia, and also as a corrective of purgative. It forms the basis of the red powder (faug) used in the *Hooly* festival.

Price, 2 annas per lb.

CYDONIA VULGARIS.**BEHEEDANA.**

The seed of *Cydonia Vulgaris*, of the natural order *Pomaceæ*, produces the *beheedana* of Indian markets, where they are imported from Cabul, Bokhara, and Asia Minor. They are highly valued by the Mahomedans as a demulcent tonic and restorative remedy. From the presence of a mucilage, which they yield to water, they possess the demulcent and emollient properties of mucilage of *accaciæ*.

Price, 1 rupee 4 annas per lb.

CYPERUS HEXASTACHYUS.**MOOTHA.**

and

CYPERUS PERTENUIS.**NAGUR MOOTHA.**

The roots of *Cyperus Hexastachyus* and *Pertenuis*, of the natural order *Cyperaceæ*.

Besides the above, several other species of the same genus are also occasionally used as medicinal agents. The mootha and nagur mootha are common domestic remedies among the natives of Bengal.

Medicinal properties.—Tonic, diuretic, and diaphoretic. Mootha in its fresh state is given in infusion as a demulcent in fevers; used largely by the koberages in diarrhœa and dysentery. Nagur mootha is especially employed as a diuretic and diaphoretic.

Price, 2 annas per lb.

DATURA ALBA.

SADA DHATURA.

and

DATURA FASTUOSA.

KALA DHATURA.

These plants, *Datura Alba* and *Datura Fastuosa*, of the natural order *Solanaceæ*, are very common over the Peninsula of India, generally growing in waste places and in the midst of rubbish. They have long been known to the people of India, for their intoxicating and narcotic properties. They are administered with sweetments for effecting criminal designs; the seeds are taken by the dissipated and depraved in combination with *subjee* to induce a state of delirious stupefaction. They are called by the Arabs the *Jowz mazil* or *methel*, and are very familiar to the Indian poisoners who give them not with the intention of killing but of stupefying their victims for the purpose of facilitating theft and expediting other evil designs.

A profound lethargy resembling coma combined with delirium, a difficulty of respiration, and a dilated state of the pupils are generally induced. Medicinally they can be substituted for *Belladonna*, for many of the purposes for which the latter is used; both the seeds and leaves and sometimes the fresh juice of the leaves also are mixed with emollients, and applied externally in rheumatism and other kinds of pain. The practice of smoking the leaves or the dried stems, is attended with great success and relief in asthma.

Their properties are narcotic, anodyne, and antispasmodic; can be taken advantage of in almost all affections of the human system in which such remedies are indicated, but they are to be used with great caution, for when carried to excess, they are apt to prove exceedingly dangerous. The *Datura*

Fastuosa is more powerful than *Datura Alba*, both of which have occasionally been used with alleged benefit in some forms of mania, epilepsy, and obstinate headache

Price, 5 annas per lb.

DIOSPYROS EMBRYOPTERIS.

GAUB, SINDICA.

The tree *Diospyros Embryopteris*, of the natural order *Ebenaceæ*, grows commonly all over India. The fruit yields on expression an excessively astringent juice containing 60 per cent. of pure tannic acid. It is used in medicine as a valuable astringent and styptic, and is employed in Bengal for paving the bottoms of boats. The bark has been given in intermittent fevers, but with doubtful results. The infusion of the unripe fruit is used to steep fish-nets in, to make them more durable. The ripe fruit is eaten by the natives. The concrete oil obtained by boiling the seeds is used in native medicine for various purposes, chiefly as an external application. The glutinous pulp surrounding the seeds is used by Europeans in binding books, as it is obnoxious to insects. It is used on the Malabar Coast as an excellent glue by the carpenters. The wood is of indifferent quality, and not much used.

Price, 4 annas per lb.

DIPTEROCARPUS LÆVIS.

GURJUN-TEL, TILEA-GURJUN.

The oil or balsam obtained from the trunk of *Dipterocarpus Lævis*, of the natural order *Dipterocarpaceæ*.

The plant is a native of Chittagong, Tipperah, Assam, and of the Andaman Isles ; yields in great

abundance a thin balsam well known in all the Indian bazars under the name of Gurjan-tel or wood oil. As found in the bazar, it is a brown oily-looking, semi-transparent liquid. On distillation, it yields about 35 to 40 per cent. of volatile oil, leaving a thick resin. Its odour, Sir William B. O'Shaughnessy compares to that of copaiba balsam when mixed with a little naphtha. This substance is an excellent substitute for balsam of copaiba.

Specific gravity, 0.9620.

Soluble in alcohol ; sparingly so in ether ; insoluble in water.

Medicinal properties.—Diuretic and slightly stimulant. Acts upon the mucous membrane of the genito-urinary organs ; very useful in gonorrhœa, gleet, and other similar affections. In gleet, especially, it has been found more efficacious than balsam of copaiba. It is also used externally as a stimulating application to indolent ulcers.

Dose.—Ten to thirty drops in a mucilaginous draught, two or three times a day.

Price, 8 annas per lb.

DRACOCEPHALUM ROYLEANUM.

TUKHM-BULUNGO.

and

OCYMUM BASILICUM.

BABOoye-TOOSLEE-BEEJ.

The seeds of the *Dracocephalum Royleanum* and *Ocymum Basilicum*, of the natural order Labiatae, differ slightly in their character from each other ; the former is small and round, the latter is thin and oblong. Both kinds of seeds abound (in the testa or envelope) in a peculiar mucilaginous matter, slightly imparted to cold water, and mostly retained within their envelope.

Medicinal properties.—Demulcent and emollient. Employed as a good cooling remedy in gonorrhœa and in all inflammatory affections of the mucous membranes of the urinary passages.

It is also useful in catarrh, dysentery, and chronic diarrhœa. It is sometimes used for relieving the after-pains of parturition. The mucilage can be used with effect in relieving gastric irritation. It is useful as a soothing application to inflamed parts.

Preparation.—Mucilage :

Babooye toolsee seeds ... 1 drachm.

Water ... 8 oz.

Soak for two hours. *Dose.*—*ad libitum*.

Cataplasm :

Soak the babooye toolsee seeds in water till they swell up, enclose between thin pieces of muslin, and then apply over the inflamed part.

Price, 12 annas per lb.

ELETTARIA CARDAMOMUM.

CHOTA-ILLACHEE, GUZERATEE-ILLACHEE.

The plant *Elettaria Cardamomum*, of the natural order Zingiberaceæ, is a native of the mountainous tracts of Malabar, Travancore, Wynaud, Coorg, Nagga, and Cannore. It yields the cardamoms of commerce, three varieties of which have generally been described and spoken of, but what is found in the markets usually consists of a mixture of all of them. They are much used as a condiment, and enter into the composition of the famous oriental masticatory. As a warm cordial and spicy stimulant, they are used in medicine. These properties are due to the presence of a volatile oil which has a strong aromatic taste.

Price, 4 rupees per lb.

EMBLICA OFFICINALIS.

AMLA, ANOLA, AMLAKI.

The dried seeds of the tree *Emblica Officinalis* (also called *Phyllanthus Emblica*), of the natural order *Euphorbiaceæ*, growing all over India, especially in Bengal, Coromandel, Malabar, and the Deccan, are chiefly used by the native females to clean and perfume their hairs. They are given internally as a cooling remedy in bilious affections and nausea, and in infusion make a good drink in fevers. In diabetes, they are said to act with benefit. The bark of the tree is a powerful astringent, and used in diarrhœa and for tanning. In the recent state, this *Myrobolan* is very acid, and somewhat purgative; when dry, chiefly astringent. In Travancore the natives put the young branches into wells to impart a pleasant flavour to the water, especially if it be impure from the accumulation of vegetable matter or other causes. The tree yields a hard and valuable timber. Candies are made from its fruits.

Price, 2 annas per lb.

EMBELIA RIBES.

BIRUNGA.

The *Embelia Ribes*, of the natural order *Myrsinæ*, is a large creeper very common in Sylhet and its vicinities, where its berries are generally gathered by the natives and sold to the small traders in black pepper, who fraudulently mix them with that spice, which they so resemble as to render it impossible to distinguish them by sight. The dried berries are pungent, heating, and stimulant, and given in infusion, act as a certain anthelmintic.

Price, 6 annas per lb.

ERYTHRINA INDICA.

PALITA-MANDAR.

The tree *Erythrina Indica*, of the natural order Leguminosæ, is common in Bengal, Travancore, the Coromandel and the Concans, and is much used to support the black pepper vine, and to protect young coffee trees, and, from being armed with numerous prickles, it serves as an excellent hedge plant to keep off cattle from cultivated grounds. Leaves and bark are used in cases of fevers by the natives. The leaves are sometimes applied externally to disperse venereal buboes, and relieve pains on the joints.

Price, 1 anna per lb.

EUPATORIUM AYAPANA.

AYAPAN.

The plant *Eupatorium Ayapana*, of the natural order Compositæ, is a native of Bengal and Brazil. The leaves are substituted for tea in Mauritius. This plant was formerly employed against snakes and snake bites, in fever, cholera, and tetanus with alleged efficacy; but at present it is only given as an agreeable and useful diaphoretic and gentle tonic. The expressed juice of the fresh leaves is used internally as an astringent, in from 2 drachms to $\frac{1}{2}$ ounce doses.

Price, 3 annas per lb.

EUPHORBIA LIGULARIA.

MUNSA-SHIJ.

and

EUPHORBIA NIVULIA.

SHIJ.

The juice of *Euphorbia Nivulia* and *Ligularia* of the natural order Euphorbiaceæ.

These plants are common all over India. The root of Muns-shij, mixed with black pepper, is employed in cases of snake-bites, both internally and externally. The juice of the leaves of both the above species, when warmed and dropped into the ear, has been found to give great relief in ear-ache. The shij leaves, when warmed, are applied over the hypogastric region, and are said to promote the secretion of urine.

Medicinal properties.—Diuretic, purgative, and deobstruent.—The juice mixed with neem or some other oil is employed externally in rheumatic pains, and in cases of contracted limbs resulting from rheumatism. The juice of the shij leaves are used as a diuretic, and those of Muns-shij for relieving asthmatic attacks.

Price, 1 anna per lb.

FAGRŒA FRAGRANS.—*Rorb.*

The bark of Fagrœa Fragrans, of the natural order Loganiacæ, is successfully used in malarious fevers occurring epidemically in the Malacca, where it grows to a large size, and in great abundance, on a light and a very poor gravelly laterite soil. It has lately been brought by Dr. A. C. Maingay, of Malacca, to the notice of the Inspector General of the Medical Department. From a careful chemical analysis of the same, I have found it to contain traces of Strychnia, which, therefore, must suit it admirably in the treatment of malarious fevers.

Price, 8 annas per lb.

FERONIA ELEPHANTUM.

KUTHBEL.

The gummy exudation from the stem of the *Feronia Elephantum*, of the natural order *Aurantiaceæ*. It resembles in properties and appearance the true Gum Arabic.

Medicinal properties.—Demulcent. Used by the Tamil physicians as a soothing remedy in diarrhœa and dysentery. They use it in the form of powder, mixed with honey.

Price, 4 annas per lb.

FERRI SULPHAS.

HEERAKUS.

This is a common market article of India, and can be used as a hæmatinic tonic like other preparations of iron.

Price, 2 annas per lb.

FÆNICULUM PANMORIUM.

PANMOURI, SONF.

The fruit of *Fœniculum Panmorium*, of the natural order *Umbelliferæ*, a native of various parts of India, possesses the same properties as the common fennel of the European market. It is used in India as an aromatic condiment and a cordial and stomachic in flatulency, dyspepsia, and atony of the digestive organs.

Price, 5 annas per lb..

GARCINIA MANGOSTANA.

MANGOSTEEN.

This is the well-known fruit of *Garcinia Mangostana*, of the natural order *Guttiferæ*, brought into

the Indian market from the Eastern Islands. The rind of this fruit chiefly imported from Singapore, has been used with much advantage in cases of chronic hæmorrhagic dysentery.

Price, 1 rupee per lb.

GARCINIA (HEBRADENDRON) PICTORIA.

GAMBOGE, OSSARA-REWUND.

The concrete juice of the *Garcinia Pictoria*, of the natural order *Guttiferæ*.

The tree grows abundantly in the Wynaod forest, and it is also procurable in various parts of Mysore, Coorg, &c. The gamboge yielded by this tree is superior in color to the Siam and the Ceylon varieties. It is used by the natives as a dye, but its medicinal properties are unknown to them. On analysis, it has been found to contain the same ingredients as the other varieties, with a little excess of pigmentary matter.

Medicinal properties.—Purgative. Can be used in the same way and for the same purpose as the gamboge of the *Pharmacopœia*.

Besides the above, several other species of *Garcinia* produce gamboge.

Price, 4 annas per lb.

GENTIANA (PNEUMONANTHE) KURROO.

KURROO.

The root of *Gentiana Kurroo*, of the natural order *Gentianeæ*, a native of Simla, Mussoorie, and other parts of the Himalayas, possessed of the same

properties as the other species of gentian, can be used as an excellent bitter tonic. It constitutes an adequate substitute for *Gentiana lutea*.

Price, 8 annas per lb.

GLYCYRRHIZA GLABRA.

JESTO-MODHU.

The dried root, or under-ground stem of *Glycyrrhiza Glabra*, of the natural order Leguminosæ, constitutes the ordinary liquorice which is so common in Indian bazars, though the plant itself is a native of South of Europe, Crete, Candia, and Cochin China. It is used by some classes of natives as an ingredient of their masticatory, to which it gives a sweetish taste. Both in Indian and European medicine, it is extensively given as a demulcent and pectoral, and as an adjunct to nauseous drugs.

Price, 8 annas per lb.

GMELINA ASIATICA.

GOMOODOO.

and

GMELINA PARVIFLORA.

SHREE GOMOODOO.

The root of the *Gmelina Asiatica*, and the whole plant of *Gmelina Parviflora*, of the natural order Verbenaceæ.

Medicinal properties.—The root is demulcent. The plant has the power of rendering water mucilaginous; it is employed for the relief of the scalding of gonorrhœa.

Price, 2 annas per lb.

GYNOCARDIA ODORATA.**CHAULMOOGRA.**

The oil expressed from the seeds of *Gynocardia Odorata*, of the natural order *Flacourtiaceæ*.

It is imported from Sylhet. The kernels of the seeds yield, by expression, about 15 per cent. of a thick fixed oil, of unpleasant flavour, and rather offensive smell. It becomes concrete at a temperature below 70°, and fluid at about 90°.

Specific gravity, 0.9613.

Soluble in ether, partially in alcohol.

Medicinal properties.—Emollient. The oil is extensively used in the treatment of cutaneous diseases, especially in leprosy, ichthyosis, and in all kinds of syphilitic eruptions, simple or in combination. When taken internally, it is said to purify the blood of patients afflicted with leprosy.

Dose for adult, 10 to 15 grains of the kernel, daily.

Preparation.—Ointment :

Chaulmoogra oil	... one pint.
Spermacete	... 2 oz.
Wax	... 6 oz.

Melt and strain.

N. B.—Any active medicinal agents suited to particular cases in the treatment of cutaneous diseases can be incorporated with this ointment with great advantage.

Price, Oil, 2 rupees; Seeds, 2 annas per lb.

HELLEBORUS NIGER.**KALA-KOOTKEE.**

The root of the *Helleborus Niger*, of the natural order *Ranunculaceæ*.

This and another species of the black Hellebore are produced in Nepal. Pure Kala-kootkee is scarcely procurable in the Calcutta market ; but it comes adulterated with another species which is sold as genuine ; but it has no purgative properties.

Medicinal properties.—A powerful cathartic, used in maniacal and dropsical cases ; but its actions are so violent, and results so uncertain, that it has been discarded from ordinary practice, though in veterinary pharmacy it still holds a prominent place.

Price, 8 annas per lb.

HEMIDESMUS INDICUS.

UNANTA-MOOL.

The root of Hemidesmus Indicus, of the natural order Asclepiadeæ, common all over the Indian Peninsula, has been long employed by the natives in a variety of diseases generally with advantage. It has now found its way to European practice, and become officinal. It is used as a cheap and efficacious substitute for Sarsaparilla in cachectic complaints, and hence its names, the Asclepias Pseudo-sarsa and the Indian Sarsaparilla. Its use as a diuretic, diaphoretic, and alterative tonic has generally been attended with great success, and Dr. O'Shaughnessy even considers the activity of this medicine to be much more decided than that of "Sarsaparilla."

Price, 6 annas per lb.

HERMODACTYLUS.

SOORINJUN.

The bulbs or cormus of some unknown species of the natural order Liliaceæ. There are two varieties

of this substance commonly sold in Indian bazars, viz., Soorinjun tulk or bitter, imported from Cashmere, and soorinjun shereen, or sweet, from Arabia. They are evidently obtained from some species closely allied to that of colchicum, the medicinal virtues of which they have been found to possess in a nearly equal degree, and they constitute, therefore, an excellent substitute for it.

Medicinal properties.—Diuretic and sedative. An acetous tincture prepared from the bitter variety is found to produce increased action of some of the secreting organs; the action of the skin is also increased, that of the heart diminished. Can be employed, like colchicum, in gout, rheumatism, torpidity of the liver, and some cases of dropsy. It has, likewise, a depressing action, for which it is to be used with caution. Both the varieties are extensively used by the hakeems; but they require further trials before they can be safely adopted as an article of pharmacy.

Preparation.—Tincture :

Hermodactyle (Soorinjun tulk) in powder ... 5 oz.

Proof spirit ... Oij

Macerate for two days, then boil for 20 minutes in a digesting apparatus; strain while hot.

Price, 2 rupees per lb.

HIBISCUS ABELMOSCHATUS.

KALA-KUSTOOREE, LOTAH-KUSTOREE.

The seeds of *Hibiscus Abelmoschatus*, of the natural order Malvaceæ, are found in all the bazars, and are much esteemed for their cordial, stomachic and antispasmodic virtues. Reduced to powder, the Arabs use them as an adjunct to coffee. This plant is also called Musk Hibiscus, and is very common all over India.

Price, 1 rupee per lb.

HIRUDO MEDICINALIS.

JONK.

The *Hirudo Medicinalis*, of the order *Asnnelida*, have long been employed in India for local abstraction of blood. There are twelve species of leeches, six poisonous and six not so, described in *Susruta*, a work on Hindu medicine. They are found in abundance in Persia, Delhi, and Poona, &c.

Price, (in Calcutta) 2 annas each.

HYDRARGYRI CHLORIDUM CUM BICHLORIDUM.

RUSKUPPOOR.

This powerful mercurial is an important article of Indian commerce. Besides its extensive use in Indian medicine as an alterative and fumigatory, it is greatly consumed as a poison.

Price, 6 rupees per lb.

HYDRARGYRI PERSULPHURETUM.

HINGOOL, SHUNGRAF.

In Indian medicine, Cinnabar is the basis of almost all mercurial preparations. It is used externally and in fumigation. The preparation known as *Mokurer-dhuj* or *Rassa-Sindoo* of the *Koberaj's*, is almost a pure sulphide of mercury, prepared in a peculiar way mixed with gold, which, however, does not enter into its composition. This preparation is one of the most efficacious remedies in the hand of native practitioners, in all cases where an alterative plan of treatment is necessary.

Price, 3 rupees per lb.—Crude Hingool.

HYDROCOTYLE ASIATICA.**THUL-KURI.**

The plant *Hydrocotyle Asiatica*, of the natural order *Umbelliferae*, grows wild in Bengal and many other parts of India. The leaves which are bitter are toasted and given in infusion to children in bowel complaints and fevers. They are also employed as anti-inflammatory in pains and bruises. This plant is considered to possess powerful alterative properties, and on the Malabar Coast reputed as an excellent specific in leprosy, but further trials are necessary to substantiate its properties.

Price, 2 annas per lb.

HYOSCYAMUS NIGER.**KHORASANEE-AJOWAN.**

The plant *Hyoscyamus Niger*, of the natural order *Solanaceae*, is a native of Europe and Asia Minor, but now has been extensively cultivated in Sheharunpore, in the neighbourhood of Agra and Ajmere, and also in the Botanic Garden of Calcutta. The seeds are sold in all the bazars under the name of Khorasaneer-ajowan. Its leaves and seeds are employed for their narcotic properties; the latter, however, being more active, are generally used. In its effects on the human system, this plant and its preparations stand mid-way between Opium and Belladonna, combining great soothing and anodyne power with the property of dilating the pupils. It can be used as a sedative in place of opium, when that drug is contra-indicated from its constipating and exciting properties. The leaves are sometimes used as cataplasms to allay pain and remove irritation.

An excellent dry inspissated juice of the leaf has been prepared by Mr. Superintending Surgeon Ludlow at Agra and Ajmere, by exposing the juice in thin layers on a shallow earthen vessel to the intense heat of the sun in April and May. This extract has been used frequently, and considered far superior to any imported from Europe or prepared in this country by other processes. In three grain doses, its soporific and anodyne effects are most decisive, and its use, rarely, if ever, followed by any headache or other unpleasant symptom.—(B. D).

Price, 1 rupee per lb.

ICHNOCARPUS FRUTESCENS.

SHAMA-LOTA.

The *Ichnocarpus Frutescens*, of the natural order Apocynaceæ, is a common hedge plant in Bengal, Ceylon, Travancore, and many other parts of India. It is said to possess the alterative and diaphoretic properties of Sarsaparilla, for which it is sometimes used as a substitute.

Price, 12 annas per lb.

INDIGOFERA TINCTORIA.

NIL.

The plant *Indigofera Tinctoria*, of the natural order Leguminosæ, grows wild in China and Cochin China, and is extensively cultivated all over India. This and several other species of the same genus yield the indigo of commerce. The indigo prepared in the Districts of Kishnaghur, Jessore, Moor-

shedabad, Tirhoot is considered to be of the best quality. It is chiefly consumed as a coloring agent. The leaf of this plant has been used in India as an alterative in hepatitis. The root is considered as an antidote for poisons generally, and given in decoction in calculas. The leaves are rubbed up with water and applied over the hypogastrium to promote the flow of urine. Where the leaves are not available, indigo itself is used in the same way. Powdered indigo has been also used in Germany in epilepsy, but with uncertain results. In fact, its medicinal virtues have not been thoroughly ascertained.

Price, 2 rupees per lb.

IPOMŒA TURPETHUM.

TEOREE, TOOR-BOOD

The Turpeth root, the produce of *Ipomœa Turpethum*, of the natural order *Convolvulacæ*. It grows abundantly in Bengal, Ceylon, and all over India generally.

Medicinal properties.—Purgative. The powder of the bark of the dry root, mixed with sugar, is used by the Koberajes in scruple doses, which act within three hours, producing two or three semi-solid stools, unaccompanied by griping, nausea, or vomiting. Sir W. B. O'Shaughnessy, however, condemned its use, from what he considered the uncertainty of its action. The native Koberajes, even up to this day, use it as a mild purgative, and its action they say is far from being uncertain.

I cannot recommend its abandonment until a further trial has been given to it by English practitioners.

Dose.—Powdered root, one to two scruples.

Price, 12 annas per lb.

IRIS FLORENTINA.

BEGBUNOFSHA.

The roots of *Iris Florentina*, of the natural order *Iridaceæ*, are the orris root of European shops. This plant is a native of Italy and Asia Minor, but excellent orris root is procurable in the Calcutta bazars under the name of *Begbunofsha*. A species of *Iris* is cultivated in India, and its roots are used in the same manner as those of the Florentine kind. In large doses, they act as a purgative and emetic, and when reduced to powder, constitute a favorite ingredient in hair and tooth powder. Peas turned from the wood are used in issues to support suppuration.—(B. D.)

Price, 12 annas per lb.

JUNIPERIS COMMUNIS.

ABHUL, HOOBER.

The plant *Juniperis Communis*, of the natural order *Coniferæ*, a native of Europe, has been discovered by Captain Webb, as growing wild on Netee Pass, and by Mr. Inglis in Kunawar. The berries are brought into Calcutta from Cabul and the Himalayas, and considered as an excellent emenagogue and diuretic. They are, however, chiefly consumed in the manufacture of *gin* to which it imparts its flavour. The diuretic properties of *gin* are attributable to the presence of this substance.

Price, 4 annas per lb.

LAURUS CAMPHORA (CAMPHORA OFFICINARUM)

KUPPOOR.

The tree *Laurus Camphora* is a native of Japan, Borneo, Sumatra, and some other parts of the

Eastern Archipelago. A concrete volatile oil obtained from its wood by sublimation, and re-sublimed in bell-shaped masses, is the camphor of commerce. Specific gravity varies from 0.986 to 0.997.

Solubility—in water, 1 in 1000 ; in rectified spirit, 1 in 1 ; freely in chloroform, ether, volatile and fixed oils, and acetic acid, but not in alkalis.

It is antispasmodic, diaphoretic, and stimulant at first, sedative afterwards. It produces slight exhilaration without quickening the pulse ; quiets nervous irritation and restlessness. It is an anaphrodisiac, and given in chordee.

Price, 1 rupee 4 annas per lb.

LEPIDIUM SATIVUM.

HALEEM.

The *Lepidium Sativum*, of the natural order Cruciferae, cultivated all over Asia, yields the seed known in the Bazars as *Haleem dana*. It is very much used by the native physicians as a gentle stimulant; bruised and mixed with lime juice, is deemed useful in checking local inflammations. In half drachm doses, it has been found to act as a gentle and warm aperient.

Price, 5 annas per lb.

LIGUSTICUM (CNIDUM) DIFFUSUM.

BONJAWN.

The plant *Ligusticum Diffusum*, of the natural order Umbelliferae, is cultivated all over Lower

Bengal, and very common in many other parts of India. The seeds are carminative and stomachic, and chiefly used as a medicine for cattle.

Price, 4 annas per lb.

LIGUSTICUM (PTYCHOTIS) AJOWAIN.

AJOWAN, JOAN, JUVANEE, AMOOS.

The plant *Ptychotis Ajowain*, of the natural order *Umbelliferae*, grows in great abundance everywhere in India. The seeds have an aromatic smell and a warm pungent taste. They are largely used in India as a carminative in flatulent colic. They are generally taken by a certain class of the natives as an ingredient of their masticatory.

Price, 5 annas per lb.

LINUM USITATISSIMUM.

TESEE, MUSHINA.

The plant *Linum Usitatissimum*, of the natural order *Linaceae*, is extensively cultivated in Bengal, Northern India, and also in the Neilgherries. It is the common flax plant of Europe, its native country being still unknown. In Europe it is extensively cultivated chiefly for the sake of its fibres, but in India for its seeds alone. The best flax comes from Russia, Belgium, and, of late years, from Ireland. The seeds retain a large quantity of vegetable mucilage, and yield, on expression, 27 per cent. of clear, yellowish brown fluid oil, not

congealed even by the most intense cold ; smoking very much when burnt, readily becoming rancid, and drying speedily on exposure to the air. To this oil and mucilage, the meal owes its emollient, and demulcent properties which makes it so useful, when mixed with hot water, to form a poultice, or soothing application to injured or inflamed external parts. The oil is laxative, and an infusion of the seeds sweetened with liquorice is given internally as a demulcent drink in catarrhs, inflammation, and irritation of the bladder, &c., &c. The boiled oil is used in painting and varnishes.

Price, 2 annas per lb.—Seeds.

LUFFA ECHINATA.

BUNDAUL.

The *Luffa Echinata*, of the natural order Cucurbitaceæ, is a creeper very common all over Bengal and many other parts of India. The whole plant is intensely bitter, and, when dried, an infusion of it is given as an excellent bitter tonic and febrifuge. In native medicine, it is considered as a specific in chronic enlargement of spleen, and Dr. Dickinson speaks of it as such in very high terms. He attributes to it the properties of an alterative, and gives several illustrations of success attending its use in chronic malarious fevers, complicated with enlarged spleen. The powder of the dried pepó is also used as an errhine in some obstinate forms of headache with good results.

Price, 4 annas per lb.

LYGODIUM (OPHIOGLOSSUM) FLEXUOSUM.

BHOOTRAJ.

The *Lygodium Flexuosum*, of the natural order *Osmundaceæ*, is a native of Bengal and many other parts of India. The powder of the dried leaves is used with alleged success as a powerful errhine in obstinate headache.

Price, 8 annas per lb.

MALVA MAURITIANA.

KUNGEE-KE-PAT.

The plant *Malva Mauritiana*, of the natural order *Malvaceæ*, is cultivated in most parts of Bengal. Its seeds are brought from Hydrabad. It can be used with equal efficacy as a substitute for marshmallow, from which emollient drinks and ptisans are prepared in Europe, and on which the French physicians place so much confidence.

Price, 10 annas per lb.

MANGIFERA INDICA.

AMAR-KUSSEE.

The *Mangifera Indica*, of the natural order *Anacardiaceæ*, is an elegant large tree, common every where in India. Its fruit, the mango, well known as the most delicious of Indian fruits, is esteemed very wholesome, and when unripe is much used in tarts, pickles, preserves, &c. The kernel of the seed, called *Amar kussee*, appears to be nutritious, and in times of

scarcity and famine, it is boiled and eaten by the destitute and indigent people. It is possessed of anthelmintic properties for which the native physicians use it largely. The kernels are astringent, and yield a large percentage of Gallic Acid by a similar process to that followed in extracting from Gall-nuts of commerce. From the trunk of the tree, a soft reddish brown gum resin exudes, which, mixed with lime juice or oil, is applied externally to scabies and cutaneous affections. Several medicinal virtues are ascribed to its bark, young leaves, and the resinous juice, but none of them have undergone the test of experiment. The wood is commonly used as fuel, and the timber, though apt to decay, if exposed to wet, serves well for ordinary purposes.

Price, 8 annas per lb.—Kernel.

MANNA OFFICINALIS.

SHEER-KHIST.

This is a concrete exudation obtained from *Fraxinus Ornus*, *Fraxinus Rotundifolia*, and probably several other species of the same genus of the natural order *Jasmineæ*. These trees are natives of the southern part of Europe. The Manna of the European druggists is chiefly imported from Italy and Calabria. This Manna is also obtained in the Calcutta bazars under the name *Sheer-khist*. It is nutritious, particularly when recent, and acts as a mild laxative without irritating the bowels, and, therefore, very useful for children and delicate females.

Price, 3 rupees per lb.

MARANTA ARUNDINACEA.**ARROWROOT.**

This is a fecula obtained by washing the crushed or rasped root of several species of the natural order Marantaceæ. In India, *Maranta Arundinacea* and *Maranta Ramosissima* form the principal sources of Arrowroot. The latter species abounds in the Eastern districts of Bengal, as Sylhet, Comillah, &c. I have cultivated it in my garden at Burdwan, and have obtained a very superior produce. The Arrowroot sold in the bazars is sometimes fraudulently mixed with potatoe-starch, which, in a great measure, deteriorates its properties. The particles of potatoe-starch being large and marked with concentric layers, can be easily detected by the microscope. Arrowroot is a pure starch, and chiefly given as a light food to sick and invalid people.

Price, 6 annas per lb.

MEL.**MODHU, SHUHUD.**

Mel, or honey, is a saccharine secretion deposited by *Apis Mellifica*, an insect of the order Hymenoptera, commonly known as the honey-bee. It is, in fact, a vegetable product, occurring chiefly in the nectaries of flowers, but the bee collects and brings it to the hive to store it up for the food of the community. It contains two kinds of sugar, one of which crystallizes, but the other does not. It is nutritious, demulcent, and laxative; but chiefly in use as a vehicle, as in *Mel Boracis*, *Mel Rosæ*. Honey is the most favorite vehicle of native medicines, and forms the basis of several very popular medicinal preparations. Combined with vinegar, it makes the oxymel of the *Pharmacopœia*. In some localities it is poisonous, owing to the deleterious nature of the plant from which it is collected.

Price, 5 annas per lb.

MELÆ (MYLABRIS) CICHORII.

TELINI, TELEE.

Melœ Cichorii is an insect of the order Coleoptera, common in the neighbourhood of Dacca, in the Hyderabad district and numerous other localities. This fly, if procured before the mites have commenced its destruction, yields, on the average, one-third more cantharidin than the Spanish fly of the European shops.

Its actions on the human system, and uses in therapeutics, are similar to those of the Spanish fly (*Cantharis Vesicatoria*) for which it is an adequate substitute.

Price, 1 rupee 8 annas per lb.

MENTHA SATIVA.

POODEENA.

The *Mentha Sativa*, of the natural order Labiatæ, is a favorite medicine of the native physicians in dyspeptic complaints, and frequently given to stop vomiting. It is common all over Bengal, and a *chutney* prepared from the fresh herb is in common use among the natives. Its actions correspond with those of the other mints.

Price, 4 annas per lb.

MESUA FERREA.

NAGKASHORE, NAGASSUR.

The tree *Mesua Ferrea*, of the natural order Guttiferæ, is found chiefly in gardens in Bengal, and much cultivated in Java and the Malabar. The flowers are obtained in the bazars in a dried state, being used in medicine, as well as esteemed for their fragrance. The grandees of Ava are said to stuff their pillows with the dried anthers of the flowers

on account of their fragrance. Every part of this tree has been supposed in some place or other to be possessed of some active medicinal virtues, which have not been properly ascertained. The flowers and leaves are used in Bengal as antidotes to snake poison. The dried flowers in powder are used by the natives as an astringent in hæmorrhoidal discharges in doses of one scruple to one drachm with butter. The flowers when distilled yield an Attur known as the Nag-Kussur-ka-Attur. The kernel of the seeds when expressed yields a fixed oil, known as Nahur oil, which is very useful in the cure of itch.

Price, 8 annas per lb.

MICHELIA CHAMPACA.

CHAMPACA, CHAMPA.

The *Michelia Champaca*, of the natural order Magnoliaceæ, is a native of Java and the Moluccas, but extensively cultivated all over Bengal. This tree flowers and bears fruits all round the year, but most plentifully during the hot months of April, May, June, and July. The flowers are of a yellow, sometimes deep orange color, and exquisitely fragrant. They are highly esteemed by the Hindoos, especially for the use they make of them in their religious ceremonies. The bark of this well-known tree is bitter and aromatic, and Sir W. B. O'Shaughnessy considers it as an excellent substitute for Guaiacum, like the *Magnolia glauca*. It may be given in powder in intermittent fevers, in doses of from 10 to 30 grains. Its aromatic properties are dissipated on being boiled either in water or spirit, and on evaporation a bitter extract remains, which contains tannic and gallic acid.

Price, 2 annas per lb.

MOMORDICA CHARANTIA.**KUROWLA.**

The *Momordica Charantia* and *M. Muricata*, of the natural order *Cucurbitaceæ*, cultivated every where in the Peninsula, differ from each other in the forms of their fruit; the former having the fruit longer and more oblong, the latter smaller, more ovate, muricated, and tubercled. The fruits of both these species are bitter and wholesome, and eaten in curries by the natives, who value more the second variety, the *Oochya* of the Bengal bazars. The juice of the fresh leaves, especially of *M. Charantia*, mixed with warm water, has been successfully used as an athelmintic. The whole plant pulverised is said to act as a good specific in leprosy and malignant ulcers, when applied externally.

Price, 2 annas per lb.

MOMORDICA DIOECA.**GHOSAL-PHUL.**

The plant *Momordica Dioeca*, of the natural order *Cucurbitaceæ*, grows commonly all over India. The tender green fruits and tuberous roots (sometimes weighing from 2 to 3 lbs.) are eaten by the natives. The powder or infusion of the dried fruits, when introduced into the nostrils, produces a powerful errhine effect, and provokes a copious discharge from the schneiderian mucus membrane. Rheede considers it a valuable cephalic, being found to relieve all pains in the head. The root, which is mucilaginous to the taste, is prescribed by Hindoo practitioners in the form of electuary in hæmorrhoids.

Price, 4 annas per lb.

MORINGA PTERYGOSPERMA.—*Hyperanthera Moringa.*

SUJEENA, SOHUNJUNA, SHOBHUNJUNA.

The tree *Moringa Pterygosperma*, of the natural order *Moringaceæ*, is commonly cultivated all over India for its leaves, flowers, and immature capsules, which are used by the natives in curries. The root resembles the English horseradish, both in flavor and chemical composition. The native practitioners prescribe the fresh root in paralysis, intermittent fevers, hysteria, and epilepsy, and reckon it as a valuable rubefacient in palsy and chronic rheumatism. The seeds yield an oil used very much by perfumers and watch-makers as the *Ben oil*, and also as a salad oil in the West Indies, because it does not, by keeping, congeal or turn rancid. The oil is also used as an external application in gout, rheumatism, and various other kinds of pain in the limbs. In Jamaica the wood is used for dyeing a blue color.

Price, 4 annas per lb.

MUCUNA (PRURIENS) PRURITUS.*Carpopogon (Dolichos) Pruriens.*—*Cowhage.*

ALKUSHEE, ATMAGUPTA, KIWACH.

The *Mucuna Pruriens*, of the natural order *Leguminosæ*, is an annual twining plant common in Bengal, Dhera-Dhoon, and all over the Peninsula. The hairs covering the pods mixed with honey or sugar, and made into syrupy consistence, are given in the treatment of worm cases: they seem to act mechanically on the body of the worms. Their action is especially directed to the round worms, and it is expedient to follow it up by a dose of castor

oil, or any other purgative medicine. Applied to the skin, these hairs produce intolerable and almost maddening itching.

Price, 2 annas per lb.

MYRICA SAPIDA.

KAIY-PHUL.

The *Myrica Sapida*, of the natural order *Myricaceæ*, grows in the Himalayas, from the Sutlej to Sylhet. The fruit has an agreeable flavor. The aromatic bark is much used in native medicine as a mild stimulant and powerful errhine.

Price, 4 annas per lb.

MYRISTICA (MOSCHATA) OFFICINALIS.—*Nutmeg*.

JAYPHUL, JATIPHUL (JYTREE).

The tree *Myristica Officinalis*, of the natural order *Myristicaceæ*, is a native of Sumatra and the Moluccas, being most abundant in Banda. The nutmeg is of a spheroidal shape, marked with reticulated furrows, greyish red internally, with dark brownish veins. It has an aromatic odour and taste, and contains a peculiar volatile oil, besides a fatty principle. It owes its stimulant and stomachic properties to the volatile oil, which is generally given to disguise the flavor of less agreeable medicines. The fat or Kocum butter of nutmegs is used in making ointments. The mace, a peculiar texture covering the shell of the nutmeg, is also aromatic, and sometimes used in medicine. Besides their use in medi-

cine, the nutmeg and the mace are greatly consumed by the rich natives as a condiment, and also as an ingredient of their masticatory.

Price, 1 rupee 8 annas per lb.

NARDOSTACHYS (VALERIANA) JATAMANSI.

JATAMANGSI, SHUMBUL, BULKUR.

The *Nardostachys Jatamansi*, of the natural order *Valerianaceæ*, is a native of the mountains of North India, at very great elevations. The celebrated spikenard of the ancients has been referred to this article. The roots of *Jatamangsi* are brought down from the mountains in large quantities, and chiefly used by perfumers for their strong fragrance. In this drug, we have a perfect substitute for the official *Valerian*, like which it can be used as a nervous stimulant and antispasmodic in hysteria, cholera, epilepsy, and other nervous disorders, and also as an adjunct to tonics.

Price, 6 annas per lb.

NARTHEX (FERULA) ASSAFCETIDA.

HING UNGOOZEII.

This is the celebrated gum-resin obtained from the excised root of *Narthex Assafoetida*, of the natural order *Umbelliferæ*, growing in abundance in Persia, the neighbourhood of Herat, the mountains of Laristan, and Beloochistan, Hindukosh, Punjab, and some other parts of North India. It has a very disagreeable odour, for which it is called the 'devil's dung.' It is a moderate stimulant, a powerful antispasmodic, an efficient expectorant, and feeble laxative, and

is used with advantage in cases of flatulency in the bowels, hysteric paroxysms, and other kinds of nervous affections, and also in some forms of chronic bronchitis. It yields all its virtues to alcohol, and forms a clear tincture, which becomes milky on the addition of water.

Price, 2 rupees 8 annas per lb.

NERIUM ODORUM ALBA.—*White Oleander.*

SHETH-KAROOBEE, KANEER.

The *Nerium Odorum*, of the natural order Apocynaceæ, grows abundantly all over India, especially in the hilly districts about Hurdwar, and is a very common garden plant. There are five varieties of it, but the most poisonous, and that most generally used, is the white Oleander, having a single row of petals. Dr. Ainslie calls it the *Albo Simplex*. It is known throughout Bengal as the *Sheth Kurubbee*. The other varieties are considered in this country as innocuous; at any rate, they seem to be comparatively less powerful. It is the root of this, the white variety, which is reputed as the best antidote for snake bite, and which is also frequently used for purposes of criminal abortion. Both Dr. Ainslie and Sir W. B. O'Shaughnessy describe it as a powerful repellent when used externally, and also as a violent poison when taken internally; but neither of the authors gives us any clue to its mode of operation on the human system. From cases on record, and from what we have seen, it appears that the Oleander resembles, in a great measure, the *Nux-vomica*, and its alkaloid principle strychnia, in its effects on the human system. Indeed, Oleander

belongs to Apocynaceæ, a family of plants closely allied to Loganiaceæ, which contains among its members the *Nux-vomica*.

Price, 5 annas per lb.

NICOTIANA TABACUM.

TUMAK, TAMBAKOO.

The plant *Nicotiana Tabacum*, of the natural order Solanaceæ, is a native of the warmer parts of America, and extensively cultivated all over the world, for the leaves which, when dried, are variously manufactured, for the purposes of smoking and chewing. In India the leaves powdered, or sometimes cut into very small pieces, are mixed up with treacle and various other aromatics, according to the taste and means of the individual, and made into the consistence of a pill-mass, which constitutes the *Tumak* of Indian bazars. Tobacco is a narcotic, emetic, and powerful sedative, especially affecting the heart, frequently causing great depression. Smoked, it is a sedative and expectorant in various cases of asthma. Occasionally used as snuff for affections of the head. It is dangerous on account of its poisonous properties, which are attributable to the presence of a volatile alkaloid, the *nicotina* or *nicotianin*.

Price 4 annas per lb.—Leaves.

NIGELLA SATIVA.

KALA-JIRA.

The plant *Nigella Sativa*, of the natural order Ranunculaceæ, extensively cultivated in India, pro-

duces the triangular seeds, which resemble coarse gunpowder, and possess a strong aromatic odour and a flavour similar to that of Sassafras or Cubebs. The *Nigella* seeds have been long used in medicine, and are praised by Hippocrates as a tonic condiment. At present they are chiefly employed by native physicians as aromatic adjuncts to purgative or bitter remedies. In Bengal they are given to nurses in the belief that they increase the secretion of milk. Facts have been observed to corroborate the opinion. They are chiefly used as a condiment and stomachic. The seeds yield by expression 13 per cent. of aromatic oil.

Price, 6 annas per lb.

NYMPHŒA SOLUS.

SHALOOK.

The dried seeds of *Nymphœa Solus*, of the natural order *Nymphæacæ*, common in Bengal, are fried and used as a light food for the sick suffering from fever.

Price, 2 annas per lb.

OLDENLANDIA BIFLORA.

KHET-PAPURA.

The plant *Oldenlandia Biflora*, of the natural order *Cinchonacæ*, grows in abundance all over Bengal. The whole plant used in infusion acts as an excellent tonic and febrifuge in fever.

Price, 4 annas per lb.

ORCHIS MASCULA.

SALEP-MISREE.

The tubers of *Orchis Mascula*, of the natural order *Orchideæ*, obtained in small, oval, irregular masses, hard, horny, semi-transparent, of a yellowish color, a feeble odour, and a mucilaginous taste. It is composed chiefly of bassorine, soluble gum, and starch. Requires about sixty times its weight of boiling water to dissolve. In India the Salep of Cashmere is reckoned the best, and is obtained chiefly at the Hurdwar fair from the Cashmere merchants.

Medicinal properties.—It is highly nutritive and demulcent. It is employed as a food for invalids (particularly for weak and sickly children), and may be used for the same purposes as tapioca or sago. The native practitioners ascribe to it aphrodisiac properties.

Preparation.—Decoction :

Salep powder ... 1 drachm.

Water ... 8 ounces.

Boil and strain. *Dose.*—*ad libitum*.

Price, 12 annas per lb.

ORYZA SATIVA.—*Rice*.

CHAUL.

The seeds of the *Oryza Sativa*, of the natural order *Graminaceæ*, freed from husk. It is extensively cultivated in Bengal and all over India, for its universal use as an article of diet. It forms the staff of life in Bengal.

Medicinal properties.—It is highly nutritious. It is free from laxative properties, and, therefore, admirably adapted to cases in which there is a

strong tendency to diarrhœa. The decoction of rice (rice water) is a good nutritive drink in fevers and inflammatory affections of the bowels, lungs, and kidney.

Preparation.—Decoction :

Clean rice ... 4 oz.

Water ... 4 pints.

Boil to one-half and then strain. *Dose.*—*ad libitum*.

Price, 1 anna per lb.

OXALIS CORNICULATA.

AMROOL, AMLIKA, CHOOKA-TIPUTTEE.

The *Oxalis Corniculata*, of the natural order Oxalidaceæ, grows wild all over India, and resembles the European Sorrel in every respect. The small leaves, tender shoots, and flowers are given in electuaries by the Hindoos as a cooling medicine in fevers, to the extent of two teaspoonful daily, and also used with efficacy in dysentery.

Price, 2 annas per lb.

PAPAVER SOMNIFERUM.—*Poppy*.

POSTO, AFEEM, DHEREE.

The plant *Papaver Somniferum*, of the natural order Papaveraceæ, is very extensively cultivated in India for the manufacture of opium.

The half-dried juice obtained by cutting the unripe capsules of the Eastern or white Poppy, constitutes the opium, perhaps the most important drug in the whole *Materia Medica*. It is largely consumed in the East as the ready agent of a pleasing intoxication produced either by smoking or taking it in substance or in solution. In the districts of Patna, Benares, and Malwa, the manufacture of opium is carried on under the management of Government Agencies. Its use in medicine as a hypnotic,

narcotic, anodyne, and stimulant, employed both internally and externally, is well known in every country. In Bengal and some other parts of India, it is used as a poison for suicidal and other criminal purposes.

The ripe capsules, the Poppy heads, or the *postodheree* of Indian Bazzars, contain a narcotic and an anodyne principle similar to opium. Their extract is given in the same cases as opium, but it is not so powerful. The decoction of poppies is much used as an anodyne fomentation to painful bruises and swellings, and the syrup as a paretic for children.

The seeds (*posto*) largely used as an article of diet yield by expression about 50 per cent. of clear, limpid, bland oil, of a pale golden color, and of an agreeable flavour. It is used by the Natives both for culinary purposes and for burning in their lamps. It affords a clear flame. The oil concretes below 40° F^t.; above that temperature it is fluid. Advantage is taken of this property by burning this oil in Argand lamps, instead of cocoanut oil, when the temperature of the air falls below 60° F^t.

Specific gravity, .9243.

Soluble in ether, partially in rectified Spirits.

It is nutritious and emollient. It can be used in pharmacy in liniments, ointments, and plasters, in place of olive oil.

Price, of opium 10 rupees 8 annas per lb.

„ of seeds 2 annas per lb.

„ of Capsules 4 annas per lb.

PÆDERIA FÆTIDA.—*Apocynum Fætidum.*

GUNDO-BHADULEE, GANDHALEE.

The fresh leaves of *Pæderia Fætida*, of the natural order Cinchonaceæ, are very fætid and alliaceous,*

* The offensive odour is removed in the process of cooking.

and are extensively used in the form of curries as a cooling astringent in convalescence from diarrhœa, cholera, &c., &c. The plant is found in many parts of the continent and islands of India, and very common all over Bengal. The leaves are also used in baths, and given internally in retention of urine and in some fevers. The root is considered by the Hindoos as a good emetic, and often prescribed as such. Two other species of the same genus are described by Roxburgh, but their medicinal properties are not so highly valued.

Price, 4 annas per lb.

PEDALIUM MUREX.

BURRO-GOKHOORA.

The leaves of *Pedaliium Murex*, of the natural order Pedaliaceæ. The whole plant has an odour of musk. The fresh leaves, when stirred in water, render it mucilaginous. Butter-milk is often fraudulently thickened by the use of these leaves. The plant is common about the sea coasts.

Medicinal properties.—Diuretic and demulcent. The mucilage of this plant, when taken internally, greatly increases the flow of urine, and thus proves serviceable in gonorrhœa and some forms of dropsy. It is useful in allaying the irritation of the bronchial mucous membrane.

Preparation.—Mucilage:

Half a pint of water to be stirred with the fresh plant till rendered mucilaginous.

Dose.—*Ad libitum*.

Price, 10 annas per lb.

PHARBITIS NIL.

KALLA-DANAH.

The seeds of *Pharbitis Nil*, of the natural order *Convolvulaceæ*.

They are available in most of the Indian bazars, and could be obtained at a very small cost. This plant grows wild in all parts of Bengal. Its seeds have been for a long time in extensive use by all classes of the native practitioners, as an effectual purgative. In fact this is a very ancient medicine, the mention of which occurs in the *Nedan*. Dr. Roxburgh first brought it to the notice of the English practitioners in India.

Medicinal properties.—A valuable, safe, and certain purgative, operating with great rapidity, and intermediate in strength between rhubarb and jalap.

Sir W. B. O'Shaughnessy had the seeds used under his direction in the treatment of 100 patients in the Calcutta Police Hospital, among whom it proved efficacious in 94, occasioning vomiting in 5, and griping in 15; on an average, 5 stools were produced within $2\frac{1}{2}$ hours. The operation generally commenced within an hour, and was never delayed beyond four hours. Drs. Goodeve, Leckie, Martin, Chapman, and Stewart, all reported favorably of its effects. Drs. Kirkpatrick and Bidie have confirmed the statement of Sir W. B. O'Shaughnessy by numerous experiments. The seeds are now daily used in large quantities in the out-door dispensary of the Calcutta Medical College Hospital, and all charitable dispensaries in Bengal, as a substitute for jalap.

We have sufficient experience of their good effect, and can bear testimony to it. The only objection there has been, and that can be raised against its use, is the largeness of the dose required; but Dr. Bidie proposes to substitute a resin extractable from

it, which he calls pharbitisin, which, in doses of 5 to 8 grains, has been found to act safely and effectually as a cathartic.

This drug does not nauseate like jalap, than which it is not less certain in its action, though not equally active.*

<i>Dose</i> .—Powder	...	30 to 40 grains.
Extract	...	5 to 10 „

For the different preparations of the Kalla-danah powder, extract and tincture, refer to Sir W. B. O'Shaughnessy's Bengal Pharmacopœia.

Price, 4 annas per lb.

PHARBITIS (SHAPUSSUNDO?)

SHAPUSSUNDO.

The seeds of a species of *Pharbitis*, of the natural order *Convolvulaceæ*.

This plant grows abundantly in the Upper Provinces ; when cultivated in Bengal, it grows equally well. The seeds are sold in large quantities in Patna and other markets of the Upper Provinces. Each capsule contains three seeds of a brownish-red color, and studded with minute hairs. When soaked in water, they swell and yield a mucilage. The seeds are to be dried in the sun previous to their being powdered.

Medicinal properties.—A gentle aperient and tonic. The powdered seeds have been observed to act on the bowels very pleasantly and safely. In the Upper Provinces it is largely used in various cutaneous disorders, by the Hakeems, with much advantage.

We gave it a fair trial in cases of lepra anæsthetica and tuberculosa. We used to prescribe it in scruple

* For a part of the information here contained, I am indebted to Dr. Waring's article published in the *Pharmaceutical Journal*, Vol. VII., No. X., April 1866.

or half-drachm doses daily, and found it act on the bowels very gently, producing two or three semi-solid stools, unaccompanied by griping or nausea, and affording much relief to the patient. The action on the skin was beneficial.

As a mere purgative, its action is somewhat better than that of Kalla-danah.

Price, 8 annas per lb.

PHYLLANTHUS URINARIA.

HAJUR-MONI.

The plant *Phyllanthus Urinaria*, of the natural order Euphorbiaceæ. It is indigenous to Bengal and other parts of India.

Medicinal properties.—Diuretic. The infusion of this plant is used as a powerful diuretic.

Price, 4 annas per lb.

PINUS DEODARA.

DEBDAROO.

The leaves and small twigs of *Pinus Deodara*, of the natural order Terebinthaceæ. A coarse kind of fluid turpentine is obtained from this tree. It is the most celebrated of the Himalayan pines.

Medicinal properties.—Diuretic. The leaves and small twigs are used by the Natives to promote the flow of urine. The turpentine obtained from this tree is also used internally as a diuretic, and externally applied to stimulate foul and indolent ulcers.

Price, 2 annas per lb.—Leaves.

PINUS LONGIFOLIA.

GUNDABEROZA, CHEER, SURUL, THAUSA.

The tree *Pinus Longifolia*, of the natural order Coniferæ, is a native of the Himalayas, at elevations of 5 to 6,000 feet, and also found in the Kherree Pass, the entrance to Nepal, and along Tonse and Jumna rivers. Being found at the lowest elevations, and therefore most accessible from the plains, it is often employed as a substitute for deal. The wood is light, and being full of resinous matter, like the *Pinus Deodara*, both are frequently employed in the hills for making torches, as pieces of other species often are in other parts of the world. A very fine turpentine is obtained as exudations from incisions made on the trunk. This is chiefly valued by the Natives for its resin, and as the latter is only obtained by exposing the turpentine to heat, the oil, the more valuable product, is dissipated to procure the resin; but by adopting a very simple still, the resin is obtained as good as ever for the purposes of the Natives, while the oil of Turpentine on being sent to the General Hospital of Calcutta was found "to be of very superior quality." (Royle, Voigt).

Price, 4 annas per lb.

PIPER CHAVICA, CHAVICA BETEL.—*Betel-Leaf.*

PAN, TAMBOOL.

The leaf of *Piper Chavica*, of the natural order Piperaceæ, is the basis of the favorite masticatory of the East. The plant has been found wild in Java which is probably its native country, but is extensively cultivated all over India and the Malay countries, and also in the West Indies. In Bengal, it is cultivated within a fenced enclosure covered on all sides and on the top by reeds. Slices of the areca-nut, with a proportionate quantity of catechu,

and various spices according to the means and taste of the individuals, are wrapped in a leaf of the betel, pepper sprinkled over with *chunam* or shell lime, and chewed by the Natives. The betel-leaf acts as a powerful stimulant to the salivary glands and digestive organs. Its juice is also used by the kobirajes as a vehicle for administering many of their pills. The use of the betel-leaf is, indeed, conducive to health, and has been found to be an excellent preservative against scurvy in long sea voyages.

Price, 2 annas per 100 leaves.

PIPER CHUBA.

CHOIE.

The Piper Chuba, of the natural order Piperaceæ, is a native of the Moluccas, Singapore, and Penang, and though introduced in Bengal, has not been seen to flower there. The Choie is used as a warm aromatic.

Price, 8 annas per lb.

PIPER CUBEBA.—*Cubeba Officinalis*.

KABABCHINIE.

The unripe berries of Piper Cubeba, of the natural order Piperaceæ, are dried and imported from Java. Their medicinal virtues are ascribed to the presence of a volatile oil; and lately a crystalline substance, *Cubebin* apparently, identical with Piperin, has been

obtained from Cubebs. Acting as a gentle stimulant with special direction to the urinary organs, Cubebs are employed with almost certain success in gonorrhœa after the height of the inflammatory action has subsided a little. Besides its powder, an oil and a tincture are also used.

Price, 1 rupee 4 annas per lb.

PIPER LONGUM.—*Long Pepper.*

PIPOOL, PIPPALI.

The dried female catkins of *Piper Longum*, of the natural order *Piperaceæ*, are the long pepper of the shops. The plant grows wild in India, along the water courses towards the Circar Mountains, and has been much cultivated all over the Peninsula. The powdered *pipool* is given with honey in catarrhal affections, and also used as a stimulant application, being generally rubbed over the painful parts. The root, sliced and dried, is known among the native druggists as the *Pipool-mool*, a substance much used as a stimulant remedy and spice.

Price, 5 annas per lb.

PIPER NIGRUM.

KALA-MORICH, GOL-MORICH.

The dried berry with pulp of *Piper Nigrum*, of the natural order *Piperaceæ*, is the black pepper of commerce. The black pepper vine is a native of Malacca, Java, and Sumatra, and cultivated along the Malabar Coast. The black pepper deprived of its pericarp by macerating it in water, and allowing the pericarp to swell, burst, and separate, constitute the white pepper, the *Sha-morich* (*Piper Alba*). On analysis, pepper has been found to contain

piperin, concrete acrid oil, volatile oil, gummy matter, extractive, malic and tartaric acids, starch and bassorin. The pungency and stimulant property of pepper resides in the acrid concrete matter. A powerful febrifuge action has been ascribed to piperin from 6 to 8 grain doses, but Sir William B. O'Shaughnessy adduces his own experience and that of Souberain in proving its inefficacy as such. It acts as a general stimulant, and is considered valuable as an external application in chronic piles in the form of Ward's paste. The pepper is extensively used by native practitioners both internally and externally, and largely consumed for culinary purposes, preference being given by some to the white variety for its less acidity.

Price of black Pepper, $2\frac{1}{2}$ annas per lb.

„ of white Pepper, 4 annas per lb.

PISTACIA LENTISCUS.—(*Mastic*.)

ROOMIE-MASTAKEE.

A resinous exudation obtained by incision from the trunk of *Pistacia Lentiscus*, of the natural order *Terebinthaceæ*, constitutes the valuable substance commonly known as mastic. The tree is a native of the south of Europe and of Asia Minor, and has been introduced into Bengal more than half a century ago. This resin occurs in oval tears of variable size, and possesses an agreeable odour and a weakly balsamic flavour; it softens in the mouth, and becomes ductile like white wax. It is insoluble in water, but entirely soluble in ether, chloroform, and oil of turpentine. It gives its name to the process of *mastication*, being universally chewed in the East; it is occasionally used as a mild stimulant, but chiefly prescribed in pills to divide active medicines, and especially with mercurials, when the pills are to be silvered, to prevent the silver being coated with mer-

cury. Cotton saturated in a solution of 4 parts of mastic with 1 of ether, is much used by dentists for filling up carious teeth. It is burnt as an incense, and in some parts of Greece it is added to bread in small quantities, to give it an agreeable flavour. Mastic dissolved in turpentine or alcohol, is extensively used as a transparent varnish in combination with other resinous substances.

Price, 2 rupees 8 annas per lb.

PLANTAGO ISPAGHULA.

ESUPGOOL.

The plant *Plantago Ispaghula*, of the natural order *Plantaginaceæ*, is found common in many parts of India, especially in Assam. The seeds, available in all the Bazars at a very cheap cost, are much valued for the peculiar mucilaginous matter which resides in their envelope or testa, and is readily imparted to cold or warm water. They are largely used in the preparation of a cooling drink.

Medicinal properties.—Demulcent and emollient. Employed with the greatest advantage in chronic diarrhoea and dysentery, and in all inflammatory affections of the mucous membrane of the alimentary canal. It is also useful in gonorrhoea.

Preparation.—Powder:

Gently warm the seeds, and then powder.

Dose.—Half a drachm to a drachm-and-half, with an equal part of sugar.

Price, 3 annas per lb.

PLUMBAGO ROSEA.

LALL-CHITTRA, CHITTRACA.

The *Plumbago Rosea*, of the natural order *Plumbaginaceæ*, grows wild all over Bengal and many other parts of India. The root when bruised is

acid and stimulating ; and, when mixed with oil, is used externally in rheumatic and paralytic affections. Its bark is used for the purpose of blistering, exciting inflammation, and producing less effusion than Cantharides, and over which it possesses this peculiar advantage that it never produces strangury or any other form of irritation of the urinary organs. Its cheapness is also one of its recommendations. The bark is made into a paste with water and a little flour or congie, and being applied over the affected part, raises an uniform blister full of serum. Its properties are due to the presence of a peculiar and irritating principle, *Plumbagin*, discovered by M. Dulong, in 1824, found most abundantly in the bark of the root.

Price, 4 annas per lb.

PLUMBAGO ZEYLANICA.

CHITTA, CHITTRA.

The *Plumbago Zeylanica*, of the natural order *Plumbaginaceæ*, is a native of Bengal and Southern India, and is well known to native matrons who use it extensively for producing counter-irritation and occasionally vesication. The bark of the root bruised and made into a paste with rice congie, is applied by the natives to buboes in the incipient state. The fresh root is also used for purposes of criminal abortion, by introducing it into the neck of the womb, and keeping it there for some time. It is identical in all its properties with the foregoing species, and, like it, owes its active virtues to the presence of *Plumbagin*.

Price, 4 annas per lb.

PLUMBI CARBON.

SUFFADA.

This is an impure Carbonate of lead, and is a very cheap and common article of the Indian markets.

It is used in medicine in the form of ointment, but largely consumed as a basis of paint.

Price, 4 annas per lb.

PLUMBI OXIDUM.

MOORDAR-SUNKUR.

The Moordar Sunkur is a semi-vetrified oxide of lead, and is, like the former, used in all kinds of sores as an ointment. It is also given internally as a tonic in $\frac{1}{8}$ to $\frac{1}{4}$ grain doses, and enjoys a good reputation for its efficacy among native physicians. It is also used as an ingredient for Hair-dye.

Price, 6 annas per lb.

PLUMBI OXIDUM, RUBRUM.—*Minium Red Lead.*

MATAY-SINDOOR.

It is imported into India from Europe, and is largely consumed as a coloring material. It is also used in various ointments.

Price, 3 annas per lb.

POGOSTEMON PATCHOULI.

PUCHA-PAT.

The dried flowering spikes and leaves of Pogostemon Patchouli, of the natural order Lamiaceæ, are imported from Singapore, Sylhet, Penang, and the Malay Peninsula, and are sold in every Bazar in Hindoostan. Patchouli has a very powerful odour, and is extensively used by perfumers. When distilled, it yields an essential oil called Puchapatka-athur. The Cashmere shawl merchants use it in scenting their fabrics to distinguish them from the common manufactures of other places.

Price, 6 annas per lb.

POLYNEMUS PLEBEUS.—*Isinglass.*

SALA-MACH.

The air bladder of the fish *Polynemus Plebeus* is obtained in the Bengal Market at a price varying from Rupees 25 to 30 per maund. This substance is much used in its crude state as an article of diet by the Chinese.

The crude air bladder is partially soluble in boiling water, about 60 per cent. of which is dissolved. When freed from the insoluble substance, it gives an excellent quality to the Isinglass, making it resemble the isinglass of European manufacture.

Price, 8 annas per lb.

POTASSÆ NITRAS.

SHORAH.

It is produced in great abundance in the soils of East Bengal, and available in the Indian Bazars at a very cheap price. It is one of the most important articles of the European Pharmacopœia.

The Nitrate of Potash, or Saltpetre, a very important article of commerce, is obtained as a natural product in various parts of the East, where it occurs as a thin white efflorescence on the surface of the earth, and also artificially manufactured in some parts of the world. The British market receives its supply from India by the purification of the native Nitre. In the district of Tirhoot, in Bengal, it is produced most abundantly, as the nature of its soil which contains a redundancy of carbonate of lime is conducive to its development. "In the month of November, the *leonahs*, or native manufacturers of Saltpetre, commence their operations by scraping off the surface from old mud-heaps, mud-buildings, waste grounds, &c., where the saltpetre has developed itself in a thin white efflorescence,

resembling frost-rind. This saline earth being collected at the factories, the operator first subjects it to the process of solution and filtration. This is effected by a large mud filter lined on the inside with stiff clay." As the earth thus treated contains Nitrate of Lime besides Nitrate of Potash, the solution is also made to pass through layers of wood-ashes (Impure Carbonate of Potash) by which the former is transformed into Nitrate of Potash, Carbonate of Lime remaining as the result of reaction. The impure nitre thus obtained by crystallization, is termed *dhouah*, and contains 45 to 70 per cent. of pure Nitrate of Potash. It is re-dissolved and crystallized by the native merchants, who supply the Calcutta bazars; and, when thus purified, is called by the Natives *kalme*. It is further purified in Calcutta by re-solution and re-crystallization and then laid out for sale. As the art of making gunpowder and fire-works has been familiar to the Hindoos from the very ancient times, its manufacture and uses were evidently known to them. Its use in European medicine as a refrigerent, diuretic, and diaphoretic, is too well known to require further description.

Price, $1\frac{1}{2}$ annas per lb.

PRUNUS BOKHARIENSIS.

ALOOBOKHARA.

The plum of Bokhara is the fruit of *Prunus Bokhariensis*, of the natural order Rosaceæ. It is prominently described in Persian works on *Materia Medica*, and considered to act as a cooling laxative like the prunes of the European Pharmacopœia. Known as Alobokhara, it is available in all the Indian markets, where they are brought down by the Affghans, and largely consumed by the rich in various forms of *chatney*.

Price, 10 annas per lb.

PSORALEA CORYLIFOLIA.—*Trifolium Unifolium.*

BABCHEE, BACCHEE, BOOCHKEE, HAKOOCH ?

The seeds of *Psoralea Corylifolia*, of the natural order Leguminosæ, are somewhat ovate, very small, and of a dark brown color, and possess an aromatic and bitter taste. The plant is found common in Bengal and all over India. The seeds are considered by the Natives as an excellent stomachic and deobstruent, and used largely in cases of leprosy and other cutaneous affections. An extract is prepared from it, which, when mixed with oil or ointment, is applied in cases of leucoderma or white leprosy. The application of it promotes healthy action of the diseased part, and gradually restores the skin to its natural color. The subject is still under investigation, and we hope to be able to publish the results of our experiments shortly.

Price, 12 annas per lb.

PTEROCARPUS MARSUPIUM.—*Gum Kino.*

KOOMURKUS, PEET-SAL.

The tree *Pterocarpus Marsupium*, of the natural order Leguminosæ, is a native of the Neilgheries, Concans, and Travancore, and exudes a red juice which hardens into a strong, brittle, gum-resin, of a dark red colour, which constitutes one of the *Gum kinos* of commerce. It is exported in considerable quantities from Malabar, and used as an adequate substitute for the Pharmacopœial *kino*. The wood is employed for louse building purposes, and is a little inferior to teak. This *kino* is sold in the bazars of India as *koomurkus*, and has been in use for a long time as a simple astringent.

Price, 4 annas per lb.

PTEROCARPUS SANTALINUS.—*Red Sandal Wood.*

RUKTA-CHUNDUN.

The *Pterocarpus Santalinus*, of the natural order Leguminosæ, grows in great abundance in Ceylon, Mysore, Pulicat, and the Coromandel. The wood is compact, heavy, and of a beautiful red colour internally. Besides its enormous consumption as a dye stuff in the fine arts, it also enters into the composition of several officinal preparations to which it imparts its colour, such as the compound tincture of Lavender, &c. It is used by the Arabs as an astringent, and can well be substituted in medicine for logwood. It also forms the basis of various dentifrice mixtures.

Price, 2 annas per lb.

PTYCHOTIS INVOLUCRATA.

ANEESON, CHANOO, RANDOONEE.

The seeds of *Ptychotis Involucrata*, of the natural order Umbelliferæ, growing commonly all over Bengal and many other parts of India and its Islands, are chiefly used by the Natives as a condiment, and also as a stomachic and carminative in flatulency and other similar diseases. The leaves, though of an unpleasant smell, are now and then used as a substitute for parsley by Europeans.

Price, 1 anna 6 pies per lb.

PUNICA GRANATUM.—*Pomegranate.*

DARIMBA, DALEEM, ANAR, GULNAR, DARIM.

The *Punica Granatum*, of the natural order *Grenateæ*, is a native of Cabul, Bokhara, Mezenderan,

and Asia Minor, and is extensively cultivated all over India, and grows under almost all warm climates. Pliny considers Carthage as its place of nativity, wherefrom it has spread all over the world. His conviction has been based on the nature of its name. Its fruit abounds in an acidulous and sweet juice, from which a very pleasant, nutritious, and refrigerant sherbet is prepared. The fruits of Balabagh, lying under the Snowy hills, near Cabul, are of the best quality. The coriaceous rind of the fruit, the *naspal* of the Bazar, is highly astringent and bitter. It is much used in tanning and in dyeing yellow. The flowers are also rich in tannic and gallic acids, and can be used as an astringent. The root-bark has long been employed as an anthelmintic, and found very useful in the expulsion of tape-worms. These different parts of the plant are used both internally and externally, where astringents are indicated.

Price, of the root-bark, 1 anna ; fruit, 8 annas per lb.

QUERCUS INFECTORIA.—Gallnut Oak, Galls.

MAJOOPHUL.

The tree *Quercus Infectoria*, of the natural order Cupuliferæ, when punctured by a hymenopterous insect, the *diptolepis gallæ tinctoriæ* allows an astringent juice to exude, which concretes and produces the gall-nut; the ova deposited by the insect becomes enclosed in the excrescence. It is a native of Armenia, Asia Minor, and Kurdistan. Gall-nuts contain about 35 per cent. of tannic acid and 5 per cent. of gallic acid, to which their therapeutic properties may be attributed. Besides their extensive use as the source of those important drugs of the Pharmacopœia, the tannic and gallic acids,

their powder and compound ointment are also used in medicine. Powder of gall-nuts can be given as an astringent in from 3 to 10-grain doses, and the ointment is a good application to piles. Sometimes an infusion of gall-nuts is employed as an astringent injection in chronic discharges from the rectum or vagina, also as a chemical antidote in cases of poisoning by Opium, Nux-vomica, &c.

Price, 1 rupee 4 annas per lb.

RHEUM EMODI &c.—*Rhubarb.*

REWUND CHENEE.

The root of the various species of Rheum, of the natural order Polygonaceæ, deprived of its bark and dried, is the Rhubarb of European, and the Rewund Chenee of Indian markets. There are at least four species of Rheum that grow in the mountainous regions of North India, *viz.*, R. Emodi and R. Webbiamun, in the mountains of Gassaintan, Kemaon, and Niti; R. Spiciforme in the Northern face of the Himalayas at and beyond the Kerang Pass; and R. Moorcroftianum in Bhootan. The late Mr. Twining made several experiments on the medicinal qualities of the Himalayan Rhubarb produced by the first two species, and speaks of it in the following terms: "It has less aroma, and more astringency, than the best Turkey Rhubarb. In doses of 2 or 3 dr, it has a good purgative effect, operating 3 or 4 times, nearly as freely as the best Turkey Rhubarb. It is not apt to gripe; is less disagreeable than the best Turkey Rhubarb, nearly equally efficacious as a purge, and very superior in small doses as a tonic and astringent in profluvia."

Price, 6 annas per lb.

RICINUS COMMUNIS.—*Castor oil plant.*

ARENDA, BHERENDA, RAREE.

The oil obtained from the seeds of *Ricinus Communis*, of the natural order Euphorbiaceæ, growing wild in many parts of India, is extensively manufactured by expression. Seeds yield about 25 per cent. of pure oil (the cold-drawn), which is used as a cooling purgative. A larger quantity of the oil, about 35 per cent., may be extracted if the seeds are heated during expression, by which means much of the resinous principle of the seed is extracted. The oil thus procured can only be used for lighting purposes ; if taken internally, it produces irritation and much griping.

Medicinal properties.—A gentle and quick cathartic. Its action is well known, and the oil is largely used by Native practitioners. When its action becomes violent, it can be best checked by administering lime juice.

Price of oil, 3 annas per lb.

ROTTLERA TINCTORIA.

KAMILA, KAMOLA-GOOREE.

The red mealy powder covering the capsules of *Rottlera Tinctoria*, of the natural order Euphorbiaceæ, common in the Coromandel, Concans, Travancore, Mysore, Bombay, and some parts of Assam, is used throughout India as a dye stuff. It is also found, though in small quantities, on the leaves and stalks of the plant, but what is collected for sale is the powder carefully brushed off the capsules.

The powder possesses powerful vermifuge properties, which Dr. Royle ascribes to the minute stellate hairs found in it, and has been spoken of

very highly as a specific for tape-worms. When given in large quantities, it is apt to produce insanity. The Native dyers use it largely to impart a fine yellow color to silk.

Price, 8 annas per lb.

RUBIA MANJISTA.

MUNJETHE.

The roots of Rubia Manjista, of the natural order Cinchonaceæ, constitutes the Indian Madder. The plant grows in the Neilgherries, Dindigul, and Mahableswur, and is extensively cultivated in many other parts of the country. It is chiefly used as a red dye for coarse cloths and stuffs, but has also been employed with success as a grateful deobstruent in cases of scanty lochial discharge.

Price, 3 annas per lb.

RUETTIA LITEBROSA.

BOOREE-GOPAN.

The plant Ruettia Litebrosa, of the natural order Acanthaceæ, grows wild in Bengal. The fresh juice of the leaves mixed, with a little honey, is used with good effects as a topical application to apthæ.

Price, 1 anna per lb.

SACCHARUM OFFICINARUM.—*Sugar Cane.*

EKHU, GANDAREE, OOK, AK.

The Saccharum Officinarum, of the natural order Graminaceæ, is a native of India, and is also culti-

vated in the West Indies, Spain, Sicily, &c., &c. The stem yields an abundance of sweet juice, which, being strained, and boiled down to a dark thick consistence, constitutes the *goor* or *jaggery* of this country, very much used in place of sugar. The manufacture of sugar has been practised in India from the very earliest ages, but there are different processes of separating it from the cane-juice in different countries. *Raw sugar* (*goor*), *molasses*, *refined sugar*, and *loaf sugar* are among its chief products. The sugar is employed in medicine as a sweet demulcent, and largely consumed as an article of food. In the hot weather months, the cane is cut into small pieces, which being crushed between the teeth, fill the mouth with the raw juice, which is thus largely consumed as a cooling drink. The sugar being dissolved in water, and flavoured with lime-juice, is also used as an excellent cooling sherbet.

Price, 4 annas per lb.—Loaf Sugar.

SAGUS LÆVIS.—*Sago-tree.*

SAGO, RAMBIYA.

The *Sagus Lævis*, of the natural order *Palmaceæ*, grows in great abundance in Sumatra and the Moluccas. This palm attains its maturity in course of 15 to 20 years, when its stem is as thick as of the Cocoanut tree. The tree is felled, cut into billets, cleft, and the cellular tissue extracted and diffused through water; the fecula subsides, and the supernatant fluid being decanted off, it is dried and laid out for sale. Some say that it is passed through perforated plates, and then being dried assumes the granular form. One tree of eight years' growth yields about 3 to 4 hundred pounds of sago. Besides this there are some other species of the same family,

from which sago, though of an inferior quality, is also obtained.

Price, 4 annas per lb.

SAPINDUS EMARGINATUS.

RITAH, RISHTA, PHEMLA BINDAKE.

The pericarp of *Sapindus Emarginatus*, of the natural order Sapindaceæ, growing abundantly in Bengal, froths like soap when mixed with water, and is used instead of that substance for many important purposes, chiefly for washing hair, silk, &c., &c. The Hindoo physicians use its fruit as an expectorant, and the seeds pounded with water are often employed to stop epileptic paroxysm, by introducing a small quantity of it into the mouth. Its detergent properties are ascribable to the presence of a vegetable principle *Saponine* or *Æsculic acid*.

Price, 3 annas per lb.

SCILLA INDICA.—*Indian Squill.*

KOONDROE, JUNGLEE-PEEAZ.

The bulbous roots of *Scilla Indica*, of the natural order Liliaceæ, found common along the sea coasts, resemble the true squill both in outward appearance and medicinal properties. The bulbs are also burnt and applied to the soles of the feet, to relieve any burning sensation present in them. Dr. Buckle, principal store-keeper, Medical Department, gave me a sample of the *Salla Indica*, received by him from Dr. Durant of Arrah, who is in the habit of using it in place of the officinal Squill, and who found it equally efficacious as an expectorant. Dr. Buckle also informed me that the Squill grown at Madras is also used largely in other Medical depôts. In November 1865, one hundred and fifty

pounds of this article were obtained through the Madras Commissariat for the use of this Presidency, and it was considered a valuable substitute for the officinal Squill.

Price, 4 annas per lb.

SEMECARPUS ANACARDIUM.—*Marking Nut.*

BHALATUK, BHELA.

The seed of *Semecarpus Anacardium*, of the natural order *Terbinthaceæ*, growing in all the mountainous parts of India, contains a black acrid juice, which is employed by the natives externally to remove rheumatic pains, aches, and sprains. A little of it is rubbed over the part affected, and acts as a counter-irritant, but in tender constitutions is apt to produce inflammation and swelling. The Telingee physicians use it as a specific in all kinds of venereal affections. Its chief use, however, is in marking cotton fabrics, the color being improved and prevented from running by its being mixed with lime-water; and hence its name the marking nut. The juice is insoluble in water, and not diffusible in spirits of wine, unless the solvent be previously rendered alkaline by ammonia or potash. A brown gum exudes from its bark, which the Hindoos regard as a valuable medicine in scrofulous, venereal, and leprous affections. The bark itself is mildly astringent, and gives various shades of the brown dye. The fleshy receptacle on which the seed rests is roasted and eaten and tastes very much like roasted apples. An oil prepared by boiling the nut in water, acts, when undiluted, as a vesicant. Sir W. B. O'Shaughnessy placed a minute drop of it on the back of his hand, which occasioned a herpetic blotch intensely itchy, which did not disappear for 8 months, and left a scar like that of a burn. The vapours arising from the nuts during roasting, have been often

known to occasion erysipelatous inflammation. On expression of the kernal it yields about 7 per cent. of a somewhat black irritant oil.

The crust of the seed yields about 5 per cent. of dark vesicant oil.

Price, 2 annas per lb,

SESSAMUM ORIENTALE.

TEEL.

The plant *Sessamum Orientale*, of the natural order Pedaliaceæ, is extensively cultivated throughout India.

The seeds are about the size of a white mustard seed. Three varieties are known, the white, the parti-colored, and the black. It is principally from the latter that the teel oil of commerce is obtained. The seeds contain about 40 per cent. of oil. According to Pereira, it may be used as a substitute for almond oil; it does not get rancid soon. It forms the basis of all Indian perfumed and medicinal oils.

Specific gravity, 0.9253.

Soluble in Ether, partially in Alcohol.

Medicinal properties.—Nutritious. Internally used as a demulcent in the form of emulsion. Its local action is emollient; it is extensively used for rubbing on the skin to produce outward friction. It can be used for all purposes in pharmacy, in place of almond oil.

Price, 1 anna per lb.

SIDA ACUTA.

KURETA, PATA.

The *Sida Acuta*, of the natural order Malvaceæ, grows wild all over the Peninsula. An infusion of its

root, combined with ginger, is given in intermittent fevers and in chronic bowel complaints. The leaves bruised with oil are applied externally to promote suppuration. Its febrifuge properties are now questioned ; but it is still esteemed as a valuable bitter tonic. It has been found useful to promote perspiration, and increase appetite, and can be substituted for the more costly bitters. The expressed juice of the *Sida* is also employed as an anthelmintic ; though it has failed in the hands of several eminent physicians.

Price 8 annas per lb.

SILICATE OF POTASH.

TABASHEER, BUNGSHOLOCHUN.

The impure Silicate of Potash, which accumulates within the joints of the bamboo, is a very common article in the Indian markets. It comes from Sylhet and several other parts of India, and is highly valued by the Native practitioners as a powerful tonic and astringent.

Price, 1 rupee 8 annas per lb.

SINAPIS ALBA.—*White Mustard.*

SADA SARSHAPA.

The seeds of *Sinapis Alba*, of the natural order Cruciferæ, common all over India, differ from those of the black variety in their color. They are also somewhat larger and spherical. Their properties, though identical with, in the main, are less energetic than those of the other kind.

Price, 2 annas per lb.

SINAPIS NIGRA.—*Black Mustard.*

KALA-SARSHAPA, SURSOU, RAJIKÄ.

The *Sinapis Nigra*, of the natural order *Cruciferæ*, is extensively cultivated all over India. The seeds have been found to contain a fixed oil, volatile oil, and Sinapism or Sulpho-Sinapism. The mustard flour imported from England is the ground seed of this plant, which is also cultivated in Europe. The seeds, by expression, yield 33 per cent. of pungent oil, which is used by the Natives for various domestic purposes. Both for cooking and lighting, it is largely consumed, while it is also rubbed over the body by some classes of Natives when they go to a bath. It appears to exercise a salutary influence, by exciting the action of the sudorific glands. The mustard-oil cake is employed to feed cattle, and also as a valuable manure. The volatile oil possesses rubefacient properties, and the action of the mustard flour on the skin is to be attributed to its presence. The mustard flour is also given as a ready agent for producing vomiting.

Price, 2 annas per lb.

SMILAX CHINA.

CHOB CHINEE.

The root of *Smilax China*, of the natural order *Smilacæ*, is imported into the Calcutta market from China and other Eastern countries, and is largely used by Native physicians. It resembles *Sarsaparilla* in its medicinal properties, and can be given with advantage for the same purposes for which the other is prescribed.

Price, 1 rupee 4 annas per lb.

SODÆ BIBORAS.—*Borax.*

SOHAGA, TINCAL.

The Borax obtained in the Indian markets is generally imported from Persia and Thibet, where they occur in the waters of certain lakes. In Thibet there is a lake said to be about 20 miles in circumference, and supplied by brackish springs rising from its bottom. "The water of it contains both common salt and Borax ; the latter crystallizes on the edges and shallows of the lake, and is taken up in large masses, which are broken and dried." Borax is also artificially prepared in some parts of the world, by saturating boracic acid with soda. The salt is brought from Thibet and Persia in a crude state, and subjected to purification. Borax thus purified is largely used in medicine as a detergent application in apthæ and ulceration of the mouth. It is also supposed to possess the virtue of exciting uterine contractions, for which it is prescribed with ergot and cinnamon water to produce expulsion of the placenta. It is employed as an emenagogue, and externally in skin diseases, especially in Ptyriasis versicolor. It is also largely consumed by goldsmiths for soldering gold, and by the native potters as a glaze.

Price, 5 annas per lb.

SODÆ CARBONAS.—(*Impure.*)

SAJEEMATIE.

This impure carbonate of soda, very common all over India, is used in the manufacture of country soap. It is prepared in large quantities in Mooltan, Jhelum, Thannessur, and Jhung, but the Bengal market obtains its supply chiefly from Monghyr. The earth itself is also used by washerman for

cleaning cotton fabrics, &c. In Native medicine, it is given as an antacid in cases of heartburn and acidity in the stomach.

Price, 1 anna per lb.

SODÆ MURIAS.—*Common Salt.*

NIMAK, LOBON.

Common salt is manufactured in various parts of India, such as Hidglee, Tumlook, Cuttack, &c., &c., by boiling or evaporating by solar heat the salt water of the sea or lake ; the substance prepared by the latter method is known as the *kurkuch noon*. It is also obtained from some mines in the Punjab. The salt obtained from these sources is more or less pure, and has to be purified by re-solution, filtration, and crystallization before it is fit for use. Besides its universal use in the table, it is also given as an anthelmintic, emetic, and stomachic.

Price, 1 anna per lb.

SODÆ SULPHAS.

KHAREE NOON.

Sulphate of soda is also available in the Bengal Bazars, where they are brought from districts bordering the sea coast. It is used as a saline purgative.

Price, 2 annas per lb.

SOLANUM INDICUM.

BYAKOOR.

The *Solanum Indicum*, of the natural order Solanaceæ, is common all over India. There are varieties

of the plant differing from each other chiefly in the shape of the leaves. The root is used by Indian Doctors in dysuria and ischuria. It is considered as an exciting agent, and given in difficult parturition. Its infusion is also prescribed in fevers and coughs, and the juice of the leaves, with the fresh juice of ginger, is administered to stop vomiting. The leaves and fruit, rubbed up with sugar, are used as an external application to itch.

Price, 1 anna per lb.

SOLANUM JACQUINI.

KANTIKAREE.

The plant *Solanum Jacquini* grows wild all over India. The bitter and sub-acid berries, which are eaten in curries in some parts of India, are also given as an expectorant medicine in coughs and asthma. The roots beaten up and mixed up with wine, are given to check vomiting. The juice of the berry is also useful in sore-throat.

Price, 1 anna 6 pie per lb.

SOYMIDA (SWIETENIA) FEBRIFUGA.

ROHUN.

The *Soymida Febrifuga*, of the natural order *Cedrelaceæ*, is a large forest tree, and grows in great abundance in several of the mountainous districts of India, such as the Rajamundry, Circars, Cuddapa, the Chunar hills, and the jungles to the south of Hazareebaugh. Its wood is considered as one of the most durable woods, and is used for building purposes. The bark has a bitter and astringent taste,

and for ordinary purposes can be substituted for Cinchona bark. As an excellent tonic it is given in intermittent fevers with advantage, and from its containing a large percentage of gallic and tannic acids, it resembles the peruvian bark also in its astringency; and like it, therefore, cannot be prescribed with Iron. An over-dose of it is apt to derange the nervous system and produce vertigo and stupor. The bark is also used as a dye stuff.

Price, 2 annas per lb.

SPHÆRANTHUS HIRTUS.

CHAGUL NUDIE.

The plant *Sphæranthus Hirtus*, of the natural order Asteraceæ, grows very commonly on the banks of rice fields all over India.

Medicinal properties.—Diuretic, stomachic, and anthelmintic. The whole plant (except the roots) in decoction is diuretic; it is also used in Gastric affection. The powdered root is stomachic. The bark of the roots, made into a paste with whey, is an excellent remedy for piles. The powdered seeds are given as an anthelmintic; a liniment made from the plant is used externally in scabies and other cutaneous diseases.

Price, 1 anna per lb.

STRYCHNOS IGNATUS.—*St. Ignatius Bean.*

PAPEETA.

The seeds of *Strychnos Ignatus*, or *Ignatia Amara*, of the natural order Loganiaceæ, are brought into Calcutta from the Phillipine Islands, where the

tree grows in great abundance. Its flowers possess a very sweet scent resembling that of the jasmine. On analysis, these beans have been found to contain a much larger quantity of Strychnine in combination with igasuric acid than in the kuchila nuts, but no brucine. Their action on the human system, must, therefore, be more energetic and violent than that of nux-vomica, but unlike the latter they possess some purgative properties. Medicinally these beans can be used in all instances where nux-vomica is employed.

Price, 8 annas per lb.

STRYCHNOS NUX-VOMICA.

KUCHILA, KOOCHLA.

The tree *Strychnos Nux-vomica*, of the natural order Loganiaceæ, is a native of the Coromandel Coast, Ceylon, Concans, and the Bengal Jungles, especially near Midnapore. The wood is hard and durable. The bark is intensely bitter, and is given with success in intermittent and remittent fevers, preference being always given to that of the root. It is also employed as an antidote to snake-bites. In the Calcutta bazars, the kuchila bark is commonly sold under the name of "*Rohun*," and substituted for the harmless bark of the *Soymida Febrifuga*. In Europe it is known as the false *Angustura* bark, and it is frequently used to adulterate the true variety. The seeds are employed in the distillation of country spirits to render them more intoxicating. Instances have been observed where people having accustomed themselves to the use of kuchila nut, can consume with impunity one entire nut in the course of a day. The pulp of the fruit seems perfectly

innocent, as it is greedily eaten by many kinds of birds. The seeds of *nux-vomica* have been found, on analysis, to contain two vegetable alkaloids; *Strychnine* and *brucine*; besides an acid, the *igasuric* or *strychnic*, and yellow colouring matters, concrete oil, gum, starch, wax, and bassorin. To the presence of a larger quantity of *Strychnine*, can be attributed the active properties of the *kuchilaseeds*. The exciting action of *Strychnine* on the Spinal motor nerves is well known. Its use in medicine as a tonic and laxative by stimulating the muscular coat of the bowel, is attended with great success. In cholera it has been used from an idea of its being able to check excessive purging, by restoring the relaxed capillaries from enervation, but its success is still doubtful. It has been lately advocated very much as one of the potent remedies for malarious fevers. It is said to be an adequate substitute for quinine, nay, in some cases it has been found to act with decidedly good effects. We used it in a large number of cases, and though able to bear testimony to its efficacy as a valuable tonic, we must acknowledge that as an anteperiodic, it cannot equal quinine. It is very valuable in many kinds of paralysis after the inflammatory actions in the nervous centres have subsided.

Price, 3 annas per lb.

STRYCHNOS POTATORUM.—*Clearing Nut.*

NIRMALEE, INDUGA, TITANCOTTA.

The *Strychnos Potatorum*, of the natural order *Loganiaceæ*, is a large tree, and grows wild in the mountains and forests of the Peninsula. The wood is hard and durable, and used for ordinary house-

building and other economical purposes. The pulp of the ripe fruit is eaten by a certain class of the Natives. The entire plant is destitute of the poisonous properties of the other species. The ripe seeds dried and then laid out for sale, are highly esteemed and largely consumed for their property of clearing muddy water. This probably depends on its astringency. One of the seeds is well rubbed for a minute or two round the inside of the vessel containing water, generally an unglazed earthen one; in a very short time all the impurities fall to the bottom, leaving the water clear and perfectly wholesome. Every regiment in time of war should be provided with an adequate supply of the Clearing Nut, which is cheaper and more easily available than alum. The fruit is used by the native physicians of Southern India as an excellent emetic, and the powdered seed mixed up with honey are applied to boils to hasten suppuration, and with milk to sore-eyes.

Price, 3 annas per lb.

STYRAX BENZOIN.—*Benjamin Tree.*

LOBAN.

The Styrax Benzoin, of the natural order Styracaceæ, is a native of Sumatra, Borneo, Siam, and Java. By incisions made on the trunk of the tree when five or six years old, a resinous balsam is obtained, which occurs in dry and hard grey masses, and very much used as a varnishing material in Fine Arts. It may also be used as a source of Benzoic acid. The Storax when prepared, is useful as an expectorant and stimulant.

Price, 1 rupee per lb.

SULPHUR.**AMLASA-GUNDHAK.**

Sulphur occurs in the simple state in Nepal, Java, Persia, and many other countries. A very pure variety is obtainable in the Indian Bazars under the name of Amlasa-Gundhak. This variety is almost equal in purity to the washed Sulphur of the Pharmacopœia. It is used as a specific in various cutaneous affections, and also as a laxative for children.

Price, 13 annas per lb.

TAMARINDUS INDICA.**TINTIREE AMLEE, TENTOOL.**

The pulp of the fruits of *Tamarindus Indica*, of the natural order Leguminosæ, a native of the East and West Indies, is universally used by the Natives of India for various domestic purposes, especially to prepare tarts and pickles. It daily enters, in some form or other, into the composition of a Native dish. In famines, the poorer classes eat the seeds, after subjecting them to a certain preparation, to free them from their outer testa.

Medicinal properties.—The pulp of the fruit is a mild laxative and refrigerant, useful in simple costiveness; but it cannot be relied on where free purging is requisite. It promotes the action of sweet purgatives, as manna and cassia by combination, but weakens that of the resinous ones. The seeds are sometimes used by the Native practitioners as an anti-dysenteric and tonic.

An infusion of the leaves is used as an anthelmintic.

The pulp of the tamarind quenches thirst, and acts as an excellent stomachic.

Price, $\frac{1}{2}$ anna per lb.

TERMINALIA BELLERICA.

BEHEYRA, BAHIRA.

The *Terminalia Bellerica*, of the natural order Combretaceæ, grows in great abundance in the mountainous parts of India, and is very common in Mysore. The fruit is an astringent, a tonic, and an attenuant. It is much used in the Fine Arts as an astringent, and as the basis of several colors.

Price, 1 anna per lb.

TERMINALIA CHEBULA.

HUREE-TUKEE, HARA, UMBED-HER.

The tree yielding the fruit of the *Terminalia Chebula*, of the natural order Combretaceæ, grows wild in the forests of Bengal, and is common in Mysore. The fruit is very astringent, and is extensively used as a mordant by Native dyers for its fixing properties.

Medicinal properties.—The dried, unripe fruit—the Jangee Hureetukee—acts as a brisk purge. Its action is not attended with griping or vomiting. It is one of the three fruits that make the *Trifolia* of the Koberajes, which is extensively used as a domestic purgative. The ripe fruit—the Hureetokee of our bazars—is very astringent; it is very useful in conjunction with catechu in apthous ulcerations.

Dose of the unripe fruit, as a purgative, in powder, is 1 to 2 drachms with a little honey.

Price of ripe variety, 1 anna per lb.

„ of unripe variety, 2 annas per lb.

TIARIDIUM INDICUM.

HATEE-SHOORO, BISTURUK.

The leaves of the *Tiaridium Indicum*, of the natural order *Boraginaceæ*, are used as a domestic application to irritable ulcers, with much relief.

Price one anna per lb.

TRAPA BISPINOSA.

SINGARA, PANIPHUL.

The fruits of *Trapa Bispinosa* and *T. Natans*, of the natural order *Onagraceæ*, differ from each other in their size and number of spines. These are used very largely as an article of food, and when tender are prescribed to the sick as a light and cooling substance. The people of Cashmere are especially fond of this article, which forms there a rich source of revenue to the Government. The stalks of the fruit are used as coloring agents. The dried fruit abounds in fecula. It forms one of the important articles of Native sick dietary. It is used in place of Sago or Tapioca, preference being given to it for its taste and flavour. The Chinese also use the dried fruits as an article of food.

Price, 3 annas per lb.—Dried fruit.

TRICHOSANTHES DIOICA.

PULBULL, POTOLE.

The *Trichosanthes Dioica*, of the natural order *Cucurbitaceæ*, is a native of India.

The whole plant and its pepo are much used by the Natives as an article of food; the unripe fruits are eaten in curries with great relish; they are particularly adapted to weak stomachs, in convalescent cases. The fresh twigs and new leaves and the unripe fruits

are in great repute with the Koberajes and Hakeems. The juice extracted from the fruit, as well as from the leaves, is used as a vehicle for various native medicines. The plant itself is a wholesome bitter, and gives a tone to the system after protracted illness.

Medicinal properties.—The bulbous part of the root is a hydragogue cathartic. The root of this plant acts like *elaterium*, for which it can be substituted. An alcoholic extract of the unripe fruit is described as a powerful and safe cathartic, in 3 to 5-grain doses, repeated every third hour, till the desired effect is produced.

Price, 4 annas per lb.—Root.

TRIGONELLA FŒNUMGRÆCUM.

MATHA, MITHEE.

The *Trigonella Fœnumgræcum*, of the natural order Leguminosæ, is extensively cultivated all over India. The seed is largely used as a condiment and also administered with advantage in dysenteric affections. The Arabs employ it in poultices and fomentations.

Price, 1½ annas per lb.

UNCARIA GAMBIR.—*Pale Catechu.*

GAMBIR KAUTH, GNATA-KHOYER.

The *Uncaria Gambir*, of the natural order Cinchonaceæ, is a native of the Indian Archipelago, and yields the Gambir Catechu of commerce. Gambir Kuth is the extract prepared from the young leaves and roots of this plant, and used by the Malays with betel and areca, as catechu is employed in India. There are

two different processes followed in the preparation of this substance. In some places the young leaves and roots are sliced and bruized in water for some hours until a feculum is deposited, this is inspissated before the sun to a proper consistence, and cast in moulds of a circular form. But in others a decoction of the leaves is evaporated by fuel and solar heat, the product dried being cut into small thin cakes. It contains a very large percentage of tannic acid, and has been often described, though erroneously, as one of the kinos of the druggists. As an astringent medicine, it owes its properties to the presence of tannic acid. Its uses in the arts also depend entirely on the same circumstance.

Price, 6 annas per lb.

UVÆ PASSÆ.

KISHMISH.

The ripe sun-dried fruit of the *Uvæ Passæ*, of the natural order *Vitaceæ*, is imported from Cashmere, and used largely as an article of food. It is agreeably fragrant, pulp soft, and very sweet. It enters into the composition of compound tinctures of senna and cardamoms. The sweetness of the fruit depends on the presence of *grape sugar*. The raisins are agreeably demulcent; they are only employed as flavoring agents.

Price, 3 annas per lb.

VATERIA INDICA.—*Indian Copal*.

COPAL, KOONDRECUM.

The *Vateria Indica* of the natural order *Dipterocarpaceæ*, a native of Malabar, Travancore, and Mysore, exudes a gum which constitutes the East

Indian Copal. Before it hardens, the resin is applied and gives a good varnish; sometimes it is melted by a slow heat, is mixed with boiling Linseed oil, and then used as a varnish. It is the piney gum resin of Malabar, and can be very well employed in varnishing pictures and furniture. Its color as obtained in the bazars varies from a greenish shade to a yellow one. The East Indian Copal is sold in English Markets as Gum Anime. Candles are also manufactured from this substance, and, when burnt, diffuse a sweet fragrance. Its medicinal properties have been greatly over-rated, and its efficacy in gonorrhœa and other venereal affections has been strongly advocated; but they have not as yet been tested by experiments.

Price, 1 rupee 4 annas per lb.

VIOLA ODORATA.

BANOPSHA.

The whole plant, *Viola Odorata*, of the natural order *Violaceæ*, is sold in a dry state in all the bazars of Bengal, and is given in infusion as a diaphoretic in fevers. In larger doses, it nauseates, and often produces vomiting. Its active properties have been ascribed to a principle which have been called *Violina*, similar in many respects to *emetine*, the active principle of *Ipecacuanha*. The powdered plant has also been employed in the preparation of Dover's Powder in place of *Ipecacuanha*, but its efficacy is less reliable than that of the other.

Price, 8 annas per lb.

VITEX NEGUNDO.

NIRGUNDI.

The *Vitex Negundo*, of the natural order *Verbenaceæ*, growing wild all over Bengal, Deyra Dhoon,

and many other parts of India, is a very favorite medicine of the native matrons. The root is pleasantly bitter, and given with advantage in cases of intermittent fevers. The dried fruit has been employed against worms with alleged success. The leaves warmed form a very agreeable application to sprains and parts affected with rheumatism. A bath medicated with its leaves is used by the females after delivery. The dried leaves are smoked by the Mahomedans to relieve headache and catarrh. An ointment prepared from the juice of these leaves is said to promote the growth of hairs.

Price, 2 annas per lb.

VITEX TRIFOLIA.

NISHINDA.

The Vitex Trifolia, of the natural order Verbenaceæ, is a very common Indian plant, and in medicinal qualities is similar to, though stronger than, the foregoing species. The powdered leaves have been given with success in cases of intermittent fevers, and the flowers are prescribed with honey in fevers accompanied with vomiting and severe thirst. Pillows stuffed with the leaves of this plant are used to cure catarrh and headache. The leaves are considered useful as an external application to all rheumatic pains, sprains, &c. The fruit is employed in amenorrhœa and many other complaints.

Price, 1 anna per lb.

WAX.—*Cera Flava and Alba.*

MOOM, SIKTHA.

The wax is a secretion of several species of insects of the order Hymenoptera, commonly known as Honey-bee, with which they construct their Comb

known as bee-hive. When these bee-hives are melted in hot water, the impurities of the hive subside, and what floats on the surface of the water, constitutes the crude Wax of the bazar. They are purified by repetition of this process, and by exposure to the sun, air, and moisture. Two varieties of this substance are obtained in the Indian markets, the white or bleached and the yellow. Bees'-wax is produced in India in very considerable quantities, and forms an important article of commerce. It is the basis of several ointments, and plasters of the Pharmacopœia.

Price, 10 annas per lb.

WRIGHTIA ANTIDYSENTERICA.

KOORCHEE, INDRAJAB.

The *Wrightia Antidysenterica*, of the natural order Apocynaceæ, grows wild in the hilly districts of the Concan, the Ghauts, and some other parts of India. Its bark, the *Conessi-bark* of *Materia Medica*, is bitter and astringent, and considered a specific medicine in dysentery and other bowel complaints, in which it has been given, both in the acute and chronic forms, with remarkable success. A decoction prepared by boiling four ounces of the root-bark in a pint of water down to half the quantity, is generally prescribed in one or two ounce doses, and has been found very efficacious even in the hæmorrhagic form of the malady. Several physicians, of eminence and repute, have spoken very highly of it, and our own experience is greatly in its favor. It has also been employed as a febrifuge, but its efficacy, as such, is still doubtful. It is, however, a good bitter tonic. The wood is light coloured, and useful for cabinet and furniture makers. The seeds are used for their vermifuge properties, and generally administered by the Native physicians in combination with other drugs of a similar nature.

When used separately, they have also been found to succeed very well. Ten per cent. of a medicinal oil is yielded by the seeds.

Price of barks, 6 annas per lb.

„ of seeds, 4 annas per lb.

ZINGIBER OFFICINALE.—*Ginger.*

ADRUK, ADA, SOONTA.

The rhizome of *Zingiber Officinale*, of the natural order *Zingiberaceæ*, possesses a penetrating odour, and an acrid, pungent, hot, aromatic taste. It is extensively cultivated in both the East and West Indies and several other countries. The fresh juice of ginger is largely used by Koberajes as a vehicle for many of their medicines. It is an aromatic, a stimulant, and carminative, and given in flatulency, dyspepsia, and as an adjunct to purgative medicines; also as a gargle in relaxed sore-throat. The dried ginger (*soonta*) is powdered and rubbed over the parts affected with cramps in cholera, and have been found to give a great relief.

Price, 6 annas per lb.—Dried.

ZINGIBER ZERUMBET.

BUCH, MOHABUREE BUCH.

The *Zingiber Zerumbet*, of the natural order *Zingiberaceæ*, is found wild in the woods about Calcutta. The under-ground stem of this species resembles that of ginger, but is bitter as well as aromatic. A bit of the root being placed in the mouth is known to allay irritable cough.

Price, 4 annas per lb.

A D D E N D A.

CRINUM ASIATICUM.

BURRO-KANOR, SOOKHDURSON.

The *Crinum Asiaticum*, of the natural order *Amaryllidaceæ*, is a native of the Concans, the Ghauts, and Java. In Bengal, *C. Toxicarium*, which, according to Sir W. B. O'Shaughnessy, is a mere variety of the former, grows wild, and in great abundance. But Drs. Roxburgh and Bidie are inclined to consider them as quite different species, though both of them may be possessed of similar medicinal properties. Sir W. B. O'Shaughnessy was induced, by Dr. Horsfield's account of its emetic virtues, to subject this article to a trial, and found it a very valuable addition to the Native *Materia Medica*. There is some doubt, however, about the species employed by that gentleman, as he mentions both of them indiscriminately in his valuable work, the *Bengal Dispensatory*. The fusiform portion of the bulb, the bulb itself, and the colorless and sheathing bases of the leaves are of a somewhat narcotic heavy odour, and act in the recent state as a ready emetic. The fresh plant bruised into a paste and squeezed through cloth, yields a juice which excites vomiting after a few minutes ; in smaller doses it is nauseant and diaphoretic. No unfavourable result ever ensued from its use. The dried roots are also an efficient emetic, but require to be given in double doses of the recent article. The bruised leaves, mixed up with castor oil, are applied in form of a poultice to whitlows, and the juice is dropped into the ears in ear-ache. The watery or alcoholic extract having been found uncertain in action, a syrup may be used which retains all the active virtues of the drug.

Price, 4 annas per lb.

OLEUM JECORIS PISCIS.—*Madras fish oil.***MATCHAR TEL.**

The oil obtained from the liver of various species of *Raidæ* and of the *Carcharis Vulgaris* and *C. Glaucus*, which abound in Calicut, has been used for a long time in Hospitals and Charitable Dispensaries throughout India in place of Cod-liver oil. It has a very disagreeable smell and nauseous taste, which make it often very offensive to weak stomachs. But Dr. Bidie has ascertained, after extensive observation, that if fresh liver is employed in the preparation of the oil, the product becomes much more pleasant and agreeable. It is manufactured by boiling it in water, and a very large quantity* of it is annually exported by the Madras Commissariat to the Bengal Presidency. Through the kindness of Dr. Buckle, the Medical Store-keeper, we are in a position confidently to state, that the quantity annually consumed varied during the last few years from 1,800 to 2,000 lbs. It contains, like the Cod-liver oil, iodine, bromine, chlorine, and phosphorous combined in an easily assimilable animal oil, and to the presence of all these properties the beneficial effects of the oil are attributed. It can be employed as a demulcent and nutrient, and is most efficient in Scrofulous diseases, glandular enlargements, diseases of the joints, tabes, mesenterica, rickets, and chronic rheumatism, and generally in all chronic cases of impaired digestion, assimilation, and nutrition. In phthisis pulmonalis, its use has been attended with very successful results.

Price, 8 annas per lb.

* The annual amount of receipt in the Bengal Medical Store is 2,500 lbs.

ONOSMA ECHIOIDES.

RUTTUN-JUTA, LALL-JUREE, MAHA-RUNGA.

The plant *Onosma Echioides*, of the natural order Boraginaceæ, is a native of North India, especially of the Himalayas, and yields, like the *Anchusa Tinctoria* or the Alkanet root of the English Market, a red principle, which is used to impart a beautiful red dye to oleaginous substances. My friend and colleague, Sub-assistant Surgeon Tameez Khan, informs me that the coloring material is sold in the annual fair held at Baug-esh-shor, near Almorah, and that the people of this place value it so much that they exchange with it the raw produce and other articles which they bring from the plains. It is generally known there under the name of Lall-Juree, but is sold in the bazars here under that of Ruthun-juta. It has been noticed both by Sir W. B. O'Shaughnessy and Dr. Royle as the *Maha-Runga*, but it cannot be obtained under that name.

Price, 8 annas per lb.—Ruttun-juta.

POLANASIA ICOSANDRA.

HOORHOORYA, CHORIE-AJOOAIN.

The *Polanasia Icosandra*, of the natural order Capparidaceæ, grows wild all over Bengal and many other parts of India. It has been described under the various appellations of *Cleome Viscosa*, *C. Dodecandria*, *C. Icosandria*, and *Polanasia Icosandra*. The plant possesses an acrid taste resembling that of mustard, and is eaten by certain classes of the Natives among other herbs as a salad. The seeds of the plant sold under the name of Chorie-ajooain are pungent, and considered anthelmintic, carminative, and stimulant. When subjected to very powerful pressure, they yield a light limpid oil. The fresh

juice of the leaves is heated and dropped into the ear to relieve ear-ache. The leaves bruised and applied to the skin act as a counter-irritant, and in delicate constitutions as a vesicant. The roots are also given for their vermifuge properties.

Price, half anna per lb.

SAPONIS.—*Country Soap.*

SABUN.

The Soap manufactured in India is available all over the country at a very cheap cost, and largely consumed by washermen for cleansing clothes. The ingredients employed in its preparation are the *sajeematee* (an impure Carbonate of Soda described before), shell-lime, and some oleaginous substance. In Bengal, cocoanut oil is used, but in some places cow's suet is substituted. It is strongly alkaline, and a very powerful detergent.

Price, 1 anna per lb.

VALERIANA HARDWICKII.

TUG-GUR, SHUMEO.

The *Valeriana Hardwickii*, of the natural order *Valerianaceæ*, is a very common shrub in and about the hills of Almorah. The root, under the name of *Shumeo*, is burnt in that part of India as an incense in religious ceremonies. It is exported in very large quantities to the plains, where it is to be had under the name of *Tug-gur*. It is chiefly used to impart an aroma to tobacco. It resembles very much the *Valeriana Juta-mangshi* and *Valeriana officinalis* in its medicinal properties, and can be prescribed in their stead with equal benefit. I am indebted to Sub-Assistant Surgeon Tameez Khan for the above particulars.

Price, 4 annas per lb.

APPENDIX.

VEGETABLE OIL.

Many of the oils included in this list were unknown before, and have only been extracted by me here from several indigenous seeds from their known medicinal virtues, in the hope that the oils extracted from them will possess equal properties. It yet, however, remains to be seen by experiment how far that expectation may be realized.

	Plants.	Specific gravity.	Centesimal yield.
Akroot oil, (Nut) ...	Aleurites triloba ...	—	13
Almond oil ...	Amigdalia communis ...	0.9180	13
Almond oil, (Indian) ...	Terminalia cattapa ...	—	5
Bakul seed oil ...	Minusops elengi ...	—	13
Bassia oil ...	Bassia latifolia ...	0.9727	30—35
Belatee koomra seed oil...	Cucurbita (?) ...	—	17
Ben oil ...	Moringa pterygosperma ...	—	—
Bonduc nut oil ...	Guilandina bonduc ...	—	—
Cabbage seed oil ...	Brassica oleracea ...	—	—
Capula seed oil ...	Rottlera tinctoria ...	—	—
Cashew nut oil, kernel ...	Anacardium occidentale ...	0.9160	10—15
" erust ...	Ditto ditto ...	—	10
Castor oil ...	Ricinus communis ...	0.9611	28—35
Chaulmoogra seed oil ...	Gynocardia odorata ...	0.9613	15—25
Cocanut oil ...	Cocos nucifera ...	0.9288	40
Cotton seed oil ..	Gossypium herbaceum...	—	20
Cress seed oil ...	Lepidium sativum ...	0.9240	20
Cucumber seed oil ...	Cucurbita pepo ...	0.9231	10
Dhatura seed oil ...	Datura fatuosa ...	—	—
Fennel flower seed oil or kalazira oil ...	Nigella sativa ...	—	10
Garlic oil ...	Allium sativum ...	—	—
Ground nut oil ...	Arachis hypogæa ...	0.9242	33—43
Hoorhoorya seed oil ...	Polonisia icosandra ...	—	—

	Plants.	Specific gravity.	Cenantesima yield.
Indrojub seed oil	... <i>Wrightia antidysenterica</i>	—	10
Linseed oil	... <i>Linum usitatissimum</i>	... 0.9347	27
Marking nut oil, kernel...	<i>Semecarpus anacardium</i>	—	7
crust ...	<i>Ditto ditto</i>	... —	5
Mustard seed oil	... <i>Sinapis nigra</i>	... 0.9160	33
Myrabolan oil	... <i>Terminalia chebula</i>	... —	2
Nahor oil	... <i>Mesua ferrea</i>	... —	—
Neem seed oil	... <i>Azadirachta indica</i>	... —	10
Oleander seed oil	... <i>Nerium thevetia</i>	... —	5
Orange seed oil	... <i>Citrus aurantium</i>	... —	17
Pesta oil	... ————	... —	40
Physic nut oil	... <i>Jatropha purgans</i>	... —	30
Poppy oil	... <i>Papaver somniferum</i>	... 0.9243	50
Radish seed oil, or Moola seed oil	... <i>Raphanus sativas</i>	... 0.9187	13?
Safflower oil	... <i>Carthamus tinctorius</i>	... —	—
Soap berry oil	... <i>Sapindus emarginatus</i>	... —	—
Sunflower seed oil	... <i>Helianthus annuus, et perennis</i>	... 0.9262	10
Tea seed oil	... <i>Thea veridis et bohea</i>	... —	—
Teel oil	... <i>Sessamum orientale</i>	... 0.9253	40
Thistle oil	... <i>Argemone maxicana</i>	... —	—
Tobacco seed oil	... <i>Nicotiana, tabacum</i>	... 0.9232	—
Turnip seed oil	... ————	... —	20





