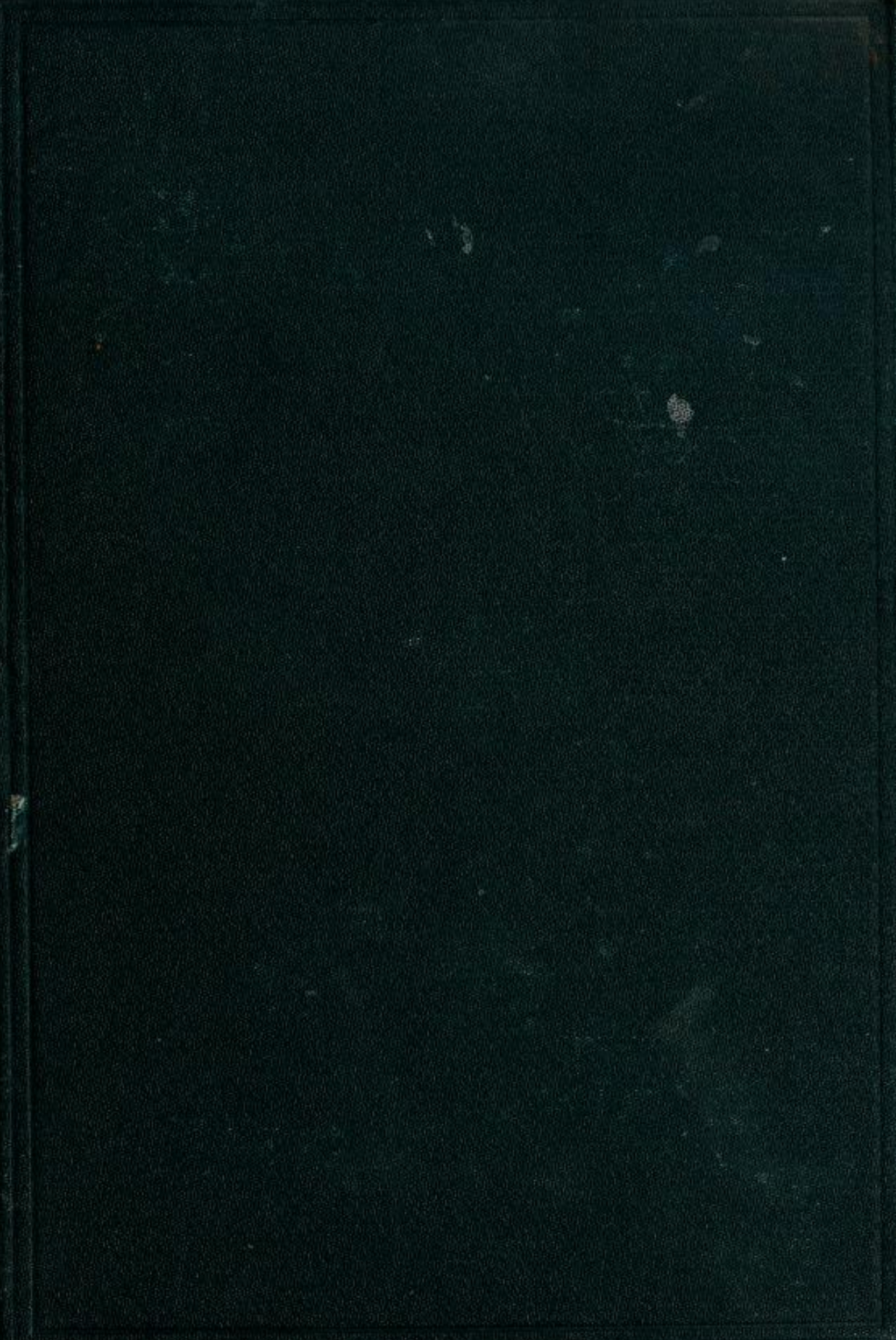




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The
Journal
of the
Alchemical Society

Edited by
H. Stanley Redgrove, B.Sc. (Lond.), F.C.S.

VOL. II.

OCTOBER, 1913, TO MAY, 1914.
(PARTS 6 TO 13).

LONDON :
Published for THE ALCHEMICAL SOCIETY
BY
H. K. LEWIS,
136, Gower Street, W.C.
1914.

The Alchemical Society.

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THE ALCHEMICAL SOCIETY was founded in 1912 for the study of the works and theories of the alchemists in all their aspects, philosophical, historical and scientific, and of all matters relating thereto. Papers dealing with these subjects for reading and discussion at the meetings of the Society and for publication in the Journal, will be welcomed by the Council. Further particulars, copies of the Rules, and application forms for membership, may be obtained from the Hon. Secretary, Mr. Sijil Abdul-Ali, 26, Bramshill Gardens, Dartmouth Park, N.W. Subscriptions should be forwarded to the Hon. Treasurer, Mr. Philip S. Wellby, M.A., c/o, Messrs. W. Rider and Son, Ltd., 8, Paternoster Row, E.C. All communications concerning the Journal should be addressed to the Editor, Mr. H. S. Redgrove, B.Sc., F.C.S., 191, Camden Road, N.W., from whom particulars as to advertising rates for the Journal may be obtained.

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THE JOURNAL OF THE ALCHEMICAL SOCIETY

EDITED BY H. STANLEY REDGROVE, B.Sc. (LOND.), F.C.S.

VOL. II. PART 6.

OCTOBER, 1913.

REPORT OF FIRST ANNUAL DINNER.

THE first Annual Dinner of THE ALCHEMICAL SOCIETY was held on Friday, June 6th., at Pinoli's Restaurant, Wardour Street, W. The chair was occupied by the Honorary President, Prof. John Ferguson, M.A., LL.D., F.I.C., F.C.S.

After dinner the following toasts were proposed and responded to:—

THE ALCHEMICAL SOCIETY; proposed by Mr. Arthur Edward Waite; responded to by Mr. Philip S. Wellby, M.A.

THE HONORARY PRESIDENT; proposed by Mr. H. Stanley Redgrove, B.Sc., F.C.S.; responded to by Prof. John Ferguson, M.A., LL.D., F.I.C., F.C.S.

THE OFFICERS AND COUNCIL; proposed by Mr. George H. Spurling; responded to by Mr. W. Gorn Old.

THE LADIES; proposed by Mr. Ralph Shirley; responded to by Mrs. Alister Macdonald.

THE VISITORS; proposed by M. W. de Kerlor; responded to by Mrs. Louisa M. James.

REPORT OF SIXTH GENERAL MEETING.

THE sixth General Meeting of THE ALCHEMICAL SOCIETY was held at 8.15 p.m. on Friday, October 10th, at The International Club, Regent Street, S.W. The chair was occupied by the Honorary President, Prof. John Ferguson, M.A., LL.D., F.I.C., F.C.S.

The Chairman announced with regret that Mr. W. T. Horton had been obliged to resign from his position on the Council. M. Gaston De Mengel was elected to fill the vacant position.

The Secretary announced the names of new members, and informed the meeting that he had received letters from several members expressing their regret for inability to attend the present meeting.

Prof. Ferguson delivered, from the chair, the opening address for the new session, on "Some English Alchemical Books". (The address is printed in full in the present number of the JOURNAL).

Mr. H. Stanley Redgrove, B.Sc., F.C.S., proposed a very hearty vote of thanks to the Honorary President for his admirable address, which was seconded by Mr. Philip S. Wellby, M.A., and carried by acclamation. Prof. Ferguson, in a few well-chosen words, thanked the members of the Society for their appreciation of his efforts.

SOME ENGLISH ALCHEMICAL BOOKS.

By Prof. JOHN FERGUSON, LL.D.

ENGLISH printed alchemical literature is not bulky; it may be precious, it has certainly become rare. I have thought that a brief survey of some of the books which I have come across in the course of my inquiries and on which I have made a few notes from time to time, may serve as an introduction to the work of the coming session.

After all, what we know about Alchemy is obtained from books and records. There are no remaining tangible, demonstrable facts. Even supposing that gold coins or medals were ever made from alchemical gold, it is a question whether such relics now exist, and it is still more a matter of evidence whether those extant, if there be such,—which I do not know—are genuine or not.

It is different with technical processes in other departments. Both the methods are known and the objects themselves produced by them, and we can tell how they may or must have been done, even though the described methods are not wholly intelligible, or differ from what we should do now. But in the case of a gold medal or other object, we see the medal certainly and can confirm that it is of gold, but, that the gold was made from mercury or lead or other metal there is no proof, and, even if we believe it, we do not know how it was effected and the books do not explain the process.

All the same, since we have undertaken to investigate the foundations upon which the idea of transmutation is based and the truths which the superstructure may contain, we may as well know what material we have to work upon.

The remark has been already made that the literature in English is not extensive, but it is not the less attractive on that account. It is select and suggests many questions.

In pursuing this survey, however, what exists in manuscript must be excluded, firstly, because of its abundance, which is too great for the brief possibilities of such an address as the present, and, secondly, because of relative inaccessibility. Numbers of manuscripts are preserved in the British Museum, and whoever takes the trouble to consult Black's Catalogue of the Ashmolean MSS. at Oxford, will find more than enough to occupy his attention. I do not speak of the manuscripts which have offered themselves to me in past years, for they were for the most part in Latin and very few indeed were in English, but even now there is no lack of alchemical manuscripts to be had, if one is able and willing to pay a price for them. They are dear, however, and late. One never sees an early manuscript on parchment or even on paper, which might be valuable for supplying a new or unknown tract, or various readings of those known.

Putting all these aside as material for an independent research, attention may be directed to the printed literature.

The printing generally of alchemical books in quan-

tity and especially so in English, began at a comparatively late period. So far as I know the first alchemical book of all was printed in Italy, possibly at Rome, between 1470-80, and it was the *Summa Perfectionis* of Geber. It may have been taken from the Vatican manuscript. There is something rather significant in this selection. It was the only alchemical book printed in the 15th century. It is true there is another work ascribed to the same author, entitled *Flos Naturarum*, which was printed in Italy and is dated 1473, but this is a book of receipts and contains only one or two paragraphs relating to Alchemy; its rarity, besides, puts it out of consideration.

Within recent years it has become the fashion to speak of the reputed author of the *Summa Perfectionis* as the pseudo-Geber, to place him in the 12th Century and there to leave him, without further consideration. This is not the occasion for entering upon a controversial topic such as this, but it savours somewhat of affectation to employ such a qualification of his name, when the works of Dschabir-ben-Hayyan, if there be such a person, have never been in general circulation at all. I say advisedly, if there be such a person, for although his name has been recorded as early as the 10th century and manuscripts of a few of his reputed writings have long existed at Leyden, Paris, and elsewhere, the accounts of him are so discordant that good authorities have not hesitated to regard him as a myth, or a sort of general title for various writers. But whoever Geber may have been and whatever his date, it is remarkable, as has been said already, that his writings should have been selected for printing in preference to those ascribed to Roger Bacon, Avicenna, Arnoldus de Villanova, Raymond Lully, and others, which were not printed till long after. It may have been that the MS. was at hand for the printer; it is also possible that the work was chosen as being the best of its kind then known. It retained this character to comparatively recent times, for editions and translations of Geber's works have been printed steadily during all the centuries, until the 19th. But now, in the 20th, the merit of the *Summa Perfectionis* as a typical treatise is recognised, and a reprint of it is promised as one of a series of epoch-making books. That, it seems to me, is a weighty comment on the pseudo-Geber nomenclature, as if there had ever been another and real Geber whose place had been usurped.

Early in the sixteenth century after the rush of philosophy, school-theology, law and classics was over, those interested in natural history, medicine and science, began to print, and occasionally works on Alchemy appeared; such as those of Pantheus, Augurellus, Raymond Lully, and a little later, Nazari, Picus Mirandulanus, Vallensis and others, for the most part in Latin. At Nürnberg in 1541, appeared one of the earlier collections of tracts, although it was not the first. This mode of publication became popular, and as time went on many gatherings were made: Gratarolo's *Veræ Alchemiæ doctrina*, *Ars Aurifera*, Albineus' *Bibliotheca Chemica*

Contracta, *Pretiosa Margarita Novella*, and others, ending in the six densely printed volumes of the *Theatrum Chemicum*, and Manget's *Bibliotheca Chemica Curiosa*, Roth Scholtz's German *Bibliotheca Chemica*, and Ashmole's *Theatrum Chemicum Britannicum*, to be referred to below.

But as yet no alchemical book in English had made its appearance, for such treatises as *The Treasure of Evonymus*, *The Secrets of Alexis*, Brunswick on *Distillation* (1527) and others, were books of medical and technical receipts, containing plenty of primitive chemical detail, but with no reference to transmutation.

In fact, in the sixteenth century, Alchemy was either not cultivated and pursued energetically in England or its literature was rigidly preserved and concealed in manuscript. This latter is probably the correct way of explaining why so little alchemical literature was issued before 1600.

So far as known to me at the present time—there may be others which I have forgotten or have never heard of—there are only two books in English belonging to the sixteenth century; one is George Ripley's *Compound of Alchymy*, 1591, the other, Roger Bacon's *Mirror of Alchymy*, 1597. Both have passed into the limbo of forgotten things, and are now among the great rarities of alchemical literature.

In the sixteenth century also lived John Hester at the sign of the Furnaces at Paul's Wharf, who called himself practitioner in the Art of Distillations, and who translated a number of books on chemistry and pharmacy. More particularly, however, in connection with our present theme, he printed in 1591 the answer which Quercetanus wrote to the work of Aubertus on the origin of metals, in which the latter opposed the current chemical view of their composition and formation. This point was of some importance, for on it turned the possibility and probability of transmutation.

This is a very meagre output on the subject, but either there is nothing more to be had or else I have missed it. This seems unlikely, for had it existed, it could hardly have escaped notice altogether during the time I have been noting these books.

It is hardly better during the first half of the seventeenth century. There is a translation in 1605 of Quercetanus' *Chymical Physick* and *Hermetical Physick*, and Francis Antonie wrote an Apologie for his menstruum called *Aurum Potabile*, London, 1616; but these are mainly medical and do not refer to Alchemy.

There is a book by Th. Tymme: *Philosophical Dialogue, wherein Nature's secret Closet is opened*, London, 1612, 4°, which, from the title, one might expect would furnish an exposition of views respecting the great secret; and another like it by Timothy Willis, 1616, 8vo: *A Search of Causes of a Theosophical Investigation of the Possibility of Transmutatory Alchymy*. These books I have just seen, but have not had the opportunity to examine carefully.

A little later, namely, during the year 1623, there appeared two of the very rarest tracts in English.

The first of them is the brief pamphlet, *A Revelation of the Secret Spirit, declaring the most concealed Secret of Alchymy* written in Italian by Giovanni Battista Agnelli, and Englished by R. N. E., which initials are said to be those of Robert Napier of Merchiston. This is dedicated to Bishop Thornborough, of Worcester, himself the author of a remarkable book, *Lithotheoricos*, which would have been included in this survey had it not unfortunately been in Latin, and just now these observations relate to books in English only. This little tract is written in the most allegorical, allusive and illusive manner; and, while there is no doubt about the secretness of the Spirit, one may well wonder and ask whereabouts is the Revelation. It is not, however, a work to be dismissed off-hand, but would require a searching examination for itself.

The other work was Patrick Scot's *The Tillage of Light, or a True Discoverie of the Philosophical Elixir*. This, however, is not an exposition, but a criticism of Alchemy, and the author maintains that the true philosopher pursues spiritual things and not the fabrication of gold with its concomitant evils. This tract belongs, therefore, to a different aspect of the subject.

In the year following, namely 1624, there appeared a translation of Flamel, whose story is well known. It reads like a romance, which in fact it is. His *Hieroglyphical Figures* were published in French in 1612, and were frequently reprinted in collections and in translations. Salmon printed his version in 1691, and the book appeared in London so recently as 1889, edited by Dr. Westcott. Of course, the question always remains in all those cases in which books have appeared under names that are doubtful: If not by their accredited authors, then who were the authors? Almost certainly such a person as Flamel is said to have been never existed, for if we are to believe the legendary history, he lived for some four hundred years, and for that matter may be alive still. Some authorities refuse to believe that Flamel was the author of any Hermetical work, so that, as I have said, the question remains, Who did write the *Hieroglyphical Figures* and other works ascribed to him? That is another topic for examination.

After these there was a lapse of five and twenty years, during which time I have no examples of any work on the subject; but about 1650 began the publication in earnest of alchemical writings of all kinds, to say nothing of mystical and occult books besides. Between the years 1650 and 1675 or 1680 more alchemical books appeared in English than in all the time before and after those dates. As has been pointed out, only a few appeared before this great outburst in 1650, and the output began to slacken about 1680; there were a few in the 18th century and very few original works in the 19th, though there were a good many reprints. The progress of chemical discovery and the preparation of medi-

cines from a chemical point of view, the discussion of the nature of combustion and the criticism of the Aristotelian and alchemical elements, the discovery of numerous new compounds and the stripping away of mystery from chemical reactions, the failure of Alchemy to effect transmutation according to its doctrines and practice, and the evil repute into which it fell through unscrupulous impostors: these drew away attention from the main aim of Alchemy, and transferred it more and more to experimental chemistry and pharmacy. It must not be forgotten that in this same 17th. century and parallel with the books presently to be noticed, there ran a whole series of genuine chemical textbooks, giving clear and satisfactory directions for practical chemical manipulation, for the preparation of all the then known chemical substances, metals, acids, salts, tests of various kinds and so on, in language exact and definite; and if the theory was less profound than ours, that was an unavoidable consequence of the less comprehensive knowledge of facts then possessed by the chemists.

Recurring to the alchemical publications of 1650, the first we encounter is one of the most notable of the collections made by J. F., who was almost certainly John French, M.D. It is the quarto edition of *The New Light of Alchymie with the Treatise of Sulphur*, written by Sendivogius, *Nine Books of the Nature of Things* by Paracelsus, and a *Chymicall Dictionary*. This volume also contains the famous Dialogue between Mercury, the Alchymist and Nature. It is somewhat hard to interpret this work and to decide whether it is to be taken literally as a satirical comment on the ordinary alchemist or as an allegory. In any case small respect is shown to the Alchemist.

A later edition appeared in 1674, in 8vo. and there was an independent translation, by John Digby, of the first tract in 1722. Though ascribed to Sendivogius, the dissertation is said to have been written by Alexander Seton, who, in the early seventeenth century, performed many striking transmutations, but, falling into the hands of the Elector of Saxony, Christian II., was tortured to make him reveal the secret and then put in prison and closely guarded. From this prison he was rescued by Sendivogius, who took him to Poland. After Seton's death, Sendivogius obtained a quantity of transmuting powder and manuscripts which he ultimately published under his own name. But while the book is plain enough in parts, it requires much explanation when it deals with the Great Work itself.

John French, about the same time, translated and edited other books on chemistry and Alchemy. In 1651, there came his edition of Glauber's *Philosophical Furnaces*, one of the most original and notable books on chemistry of the century; there was his own book, *The Art of Distillation*, of which there were four editions between 1651 and 1667. The title does not convey fully all that the book itself contains, for there are besides added to it alchemical tracts by Paracelsus, Sendivogius, Pontanus, and the Smaragdine Table

of Hermes. He also translated the *Occult Philosophy of Cornelius Agrippa*, and edited Dr. Everard's translation of the *Divine Pymander* of Hermes Trismegistus.

The year 1652 was a fairly notable one in this record, for in it appeared a book which has to some extent the character of a classic, namely the *Theatrum Chemicum Britannicum* of Elias Ashmole, alluded to above. It is noteworthy on several accounts: Firstly, it is an edition of pieces which, with two or three exceptions, existed previously only in manuscript; secondly, they are all in verse; thirdly, Ashmole has prefixed an introduction and added notes full of interesting matter, though rather discursive. The introduction, if somewhat verbose, contains a review of the early state of learning in England, and Ashmole's justifiable lament over the destruction of the libraries at the dissolution of the monasteries.

Ashmole's book contains Ripley's *Compound of Alchymie* already printed in 1591, and the *Chanon Yeoman's Tale* from Chaucer. His defence of the reprinting of this, which is such a heavy indictment of the fraudulent ways of the alchemists of the time, is that it is a warning how to avoid all such impostors and a vindication of the true sons of art, which position he supports by the authority of Norton, Ripley and Bloomefield.

Norton's *Ordinall* was here printed for the first time in English, but it had already appeared in 1618, translated into Latin by Michael Maier.

There was only one volume of this collection printed, for although Ashmole had apparently gathered a number of prose works sufficient to form a companion volume, he could not be induced to put it to the press. This is to be regretted, for he had not only the material, but he was himself a believer in transmutation, and into his preface and notes he would have infused the spirit and beliefs of the time, in a way utterly impossible for anyone making such a collection to do now, however enthusiastic he might be.

In the same year there was another gathering: *Five Treatises of the Philosopher's Stone*; two were by Alphonso, King of Portugal; one by John Sawtre, a monk; one by Florianus Raudorff, on the Mercury of the Philosophers; and lastly the names of the Stone collected by William Gratarolo. This last tract is instructive, for in the multitude of synonyms and analogies the careless or ignorant reader may easily go astray, and lose his time and labour, not to speak of his temper. William Johnston, too, published his Dictionary which, however, was in Latin, and does not therefore come into this list.

It would be tedious to enumerate individually, outside a professed bibliography, all the books which literally poured from the press during these five and twenty or thirty years, but there are some half-dozen groups of books, which were not only conspicuous then, but have remained to this day landmarks of the literature of the subject, eagerly sought after by the students of the present time. They have even

been reprinted to supply the demand for them, for owing to various causes, the original editions have become unattainable.

Foremost among them are those books of Paracelsus which were translated into English. They are but a meagre representation of the three volumes folio in Latin, or the ten quarto volumes in which Huser collected the writings of the heterodox physician. Some, which pass under his name, as *The Key of Philosophie*, called also *the Secrets of Physick and Philosophy*, are not really by him, but there are *Nine Books of the Nature of Things*, 1650, 1674, published along with Sendivogius' *New Light*, already quoted; his *Dispensatory and Chirurgery*, 1656; *The Supreme Mysteries of Nature*, 1656; *The Chymical Transmutation, genealogy and generation of Metals and Minerals*, along with *Chymical Experiments* by Lully, 1657; *Philosophy to the Athenians, Discovering the wonderful Mysteries of the Creation*, in *Philosophy reformed and Improved*, 1657; *Aurora and Treasure of the Philosophers*, 1659; *Archidoxes, comprised in Ten Books*, containing tracts about transmutation, 1660, 1661 and 1663. There are two or three medical works, besides, and that is all. When Richard Russell tells us in 1678 that he had Englished two of the three volumes of the works of Paracelsus, and about half of the third, which he intended to finish "as time, opportunity, or encouragement shall be offered," and when we know that that translation whether finished or not was never published, we can but lament our loss at the present day, now that Paracelsus is recognised as one of the great leaders of the sixteenth century in the advancing of medicine and the sciences on which it is based. Paracelsus, however, was more of an experimental chemist and pharmacist, than an alchemist; in fact he rather repudiates transmutation as part of chemistry, and the subject interested him more as a theory of matter, perhaps, than for either the material or spiritual and moral gain that was supposed to follow the acquisition of the great elixir.

At the beginning of the 17th century, appeared in German the works of Basil Valentine, most of which were turned into English. Held in greatest esteem were the *Triumphant Chariot of Antimony*, 1656, and a different edition by Russell, 1678; the *Last Will and Testament*, 1651 and 1670; and *Of Naural and Supernatural Things* along with other tracts, 1671.

Over this reputed monk of Erfurt, or, as some say, of Walkenried, there has been no end of controversy. Some, with apparent good documentary evidence, maintain that he really existed and was the author of the works ascribed to him. Others, with apparent equal reasons, assert that no such person ever lived and that the books were written by Thölden, under the fictitious name. It seems an almost hopeless task to adjust the facts and inferences, but the subject is still an open one and affords opportunity for research.

But whatever be the result, it seems fairly certain that the author had worked practically with antimony, and, dis-

counting his hyperbolic and figurative language, that he had made most of the compounds which were in use until comparatively recent times.

A third author whose works attracted a good deal of attention, both in his own life time and since, was Thomas Vaughan, better known perhaps under the name "Eugenius Philalethes." He wrote some half-dozen of little books, not very much in bulk, but weighty in their contents. There may be mentioned: *Anima Magica Abscondita*, 1650; *Anthroposophia Theomagica*, 1650; *Magia Adamica*, 1650; *Lumen de Lumine*, 1651; *Aula Lucis*, 1652; *Euphrates, or the Waters of the East*, 1655, 1671; and some controversial tracts with Henry More, the language of which is in striking contrast to what he employs in some of his other writings. Vaughan was a mystic, and though he seems to have had some practice in alchemical work, his proclivities were mainly in the direction of mystical rather than of physical Alchemy. He was a devoted admirer and follower of Cornelius Agrippa, which is somewhat singular, for the *Occult Philosophy* of that writer can hardly be considered a mystical book. For an estimate of Vaughan's views and an exposition of the general character of mystical science, I must refer you to the excellent reprint of Vaughan's *Magical Writings* by Mr. Waite.

By another of his books Vaughan links on to a fourth section of the literature of this singular epoch, that, namely, which emanated from or was concerned with the Rosicrucians. Vaughan's book in question was a translation of the *Fama et Confessio—the Fame and Confession of the Fraternity of the Rosie Cross*, 1652. The early literature in English is meagre, for besides the book just mentioned there are only Foxcroft's version of the *Hermetic Wedding*, 1690; Michael Maier's *Themis Aurea*, 1656; and the works of John Heydon: *The Rosicrucian infallible axiomata*, 1660; *The English Physicians Guide*, 1662; *The Wise Man's Crown, or the Glory of the Rosie Cross*, 1664; *Theomagia, or the Temple of Wisdom*, 1664; and *Psonthonphanchia*, 1664.

The German literature was a little more extensive, and the controversial literature most of all. For the Rosicrucian mystery has been a bone of contention ever since the first manifesto concerned with the fraternity was issued, and if the questions no longer provoke discussion, it is not because the problems have been solved, but because they no longer excite any curiosity. Whether there ever was such a fraternity, and if so who originated it and when and where, are points which have been discussed again and again, but here, once more, I must refer you to Mr. Waite's reprints of the main tracts, and the historical introduction in which he discusses fairly the question of origin and the theories advanced by various advocates.

Another writer about this time concerning whom there have been many questions, and who is connected with one of the most mysterious personages in the whole history of

the pursuit, was George Starkey. He is said to have been born in the Bermudas, was educated in America, became an apothecary and made the acquaintance of "Eirenæus Philalethes" (to be referred to later) there. From him he obtained some transmuting powder and MSS. which he afterwards published and appropriated. It is like Seton, the Cosmopolite, and Sendivogius over again. Starkey's own works relate chiefly to medicine and pharmacy, but one, the *Marrow of Alchemy*, was edited by him and published in 1664. His introductions are not signed with his own name but with an anagram: *Egregius Christo*, and *Vir gregis Custos*, which with some wrenching will stand for Georgius Stirk, which seems to have been his true name. From the contents of the Introduction it is not quite clear whether Starkey obtained the MS. direct from the author or not.

The work is in two parts and is in verse, the first book containing the theory, the second the practice. It is a tantalizing book, which doubtless it was intended to be, but, anyhow, when one reads it, it seems fairly intelligible, till one runs up against a phrase or stanza which may contradict what went before or give a totally different significance from what was expected. Even with the help of a commentary the meaning is no clearer. This, however, may be said: that it is apparently of transmutation that the poem treats, though one can never be quite positive on that point.

"Eirenæus Philalethes" or "Philaletha," as seems to be the more correct form, a very obscure person, became an adept at the age of 23, wrote several works, which had a very great reputation and of which some were turned into English. These are: *Secrets Reveal'd, or an Open Entrance to the Shut Palace of the King*, 1669; *Ripley Reviv'd*, 1678; and *Three Tracts of the Great Medicine of Philosophers*, 1694. These last are entitled respectively, *The Transmutation of Metals*, *A short Manuduction to the Celestial Ruby*, and *The Fountain of Chymical Philosophy*. It is unnecessary to attempt the analysis of these books, it would take a whole lecture to itself.

I cannot, however, pass from them without some reference to Will. Cooper of the Pelican, in Little Britain, Publisher and Bookseller. Unfortunately there is no record of his life, and we only know that he was in Little St. Bartholomew's, near Little Britain, before he moved to the sign of the Pelican. But when one conjures up the nest of that mighty bird, it produces upon us nearly as stirring sensations as the little shop full of black letter and magic and astrology and alchemy—was it Bumstead's?—so effectively portrayed by Bulwer Lytton. Cooper, indeed, was a bookseller; his lists demonstrate that; but he was something more—he was a publisher, an author, and above all a collector. Of what his general stock may have been no trace is left, but he specialized in chemistry, in Alchemy, in chemical medicine, and to some extent in natural history. Among the books he published, some have been already mentioned. *Secrets Reveal'd*; *Ripley Reviv'd*; *Collectanea Chymica*,

1684; *Aurifontina Chymica*, 1680; Simpson's *Discourse of Fermentation*; Geber's *Works*, 1686; *The Philosophical Epitaph, A Brief of the Golden Calf* from Helvetius, *The Day Dawning or Light of Wisdom*, which last three appeared in a volume in 1673. But it should be especially remembered that in this year he published his *Catalogue of Chymical Books*, which was the first of its kind that appeared in English, and the second in Europe. The first of all was the *Bibliotheca Chimica* of Borellius, 1654, and as it contained all the foreign literature, Cooper confined himself to books in English. As first issued it had been compiled in haste, but by 1673 he had revised it, added many new titles, improved the descriptions and the cross-references, and added a third part, being a catalogue of all the communications on chemistry, mineralogy, mineral waters and such like topics, made to the Royal Society and published in their *Transactions* to date. This was a great novelty, and was the forerunner of similar indexes, since drawn up. I question if Cooper's list is known, or if he has ever got any credit for his foresight. This catalogue contains many of the books which I have alluded to, and enumerates others of great rarity now, which, however, lie beyond the present subject. But interesting though the catalogue be, it is not complete, and requires to be supplemented by the lists which he appended to several of his other publications.

Contemporary with Cooper lived Richard Russell, already quoted, who deserves well of students of chemical and alchemical literature. He it was who translated Beguinus' *Tyrocinium* in 1669, one of the first student's manuals of chemistry in Europe; Helvetius' *Golden Calf, which the world adores and desires*, in 1670; the *Royal Chemistry* of Oswald Crollius, also in 1670; and in 1678, the works of Geber, reissued eight years later. The translations of Paracelsus and of Raymond Lully on which he was at work were never published, unfortunately, as has been already mentioned. From the books he selected it would appear that he too was of the physical school, for these now enumerated have all a practical character, with a leaning towards medicine.

I can do no more than mention other books in English of the period. *Fasciculus chemicus or Chymical Collections*, 1650, by Ashmole, who calls himself James Hasolle; Espagnet's *Enchyridion Physicæ Restitutæ*, or the *Summary of Physicks Recovered*, 1651; Michael Maier's *Lusus Serius*, 1654, one of the very few of his queer books in English; and a collection of chemical and other addresses to Samuel Hartlib, a well known agriculturist of the time, containing among other things, Sir George Ripley's *Epistle Unfolded*, Gabriel Plattes' *Caveat for Alchymists*, and *A Discourse about the Essence or Existence of Metals*, 1655; Henry Nollius' *Hermetical Physick*, 1655; Ludovicus Combachius' *Sal. Lumen, et Spiritus Mundi Philosophici, or the Dawning of the Day, discovered by the Beams of Light: Shewing the True Salt and Secret of the Philosophers*, 1657, translated

probably by Robert Turner, another of the Hermetic students of that time. The last book subsequently appeared with an altered title-page in 1658: *Fundamenta Chymica; or a sure guide to the high and rare Mysteries of Alchymie*, by L.C.

Ashmole's third book, *The Way to Bliss*, came out in 1658, but this is a more general treatise and only a chapter or so deals with that portion of bliss that comes by the metals and by transformation of them to the highest degree of perfection.

George Thornley's *Cheiragogia Heliana, a Manuduction to the Philosophers Magical Gold, . . . to which is added Zoroaster's Cave, or an Intellectual Eccho, etc., Together with the famous Catholic Epistle of John Pontanus upon the Mineral Fire*, was issued in 1659, and again in 1667.

In the next ten years only a few books on the subject were published: Heydon's Rosicrucian books have been already referred to; Joachim Poleman's *Novum Lumen Medicum* and the *Philosopher's Sulphur* came out in 1668, and in the same year Lancelot Colson's *Philosophia Maturata* to which was added St. Dunstan's work on *The Philosopher's Stone*. One or two reprints also were made.

There was more activity in the seventies, though again there were several reprints: Van Suchten's little tract on Antimony, 1670; Helvetius' *Golden Calf*; Webster's *History of Metals*, 1671; Will Cooper's *Catalogue* and other works, 1673; the *New Light of Alchemy*, 1674; Starkey's *Treatise on the Alkahest*, 1675. Kelly's two tracts in Latin, 1676, must be excluded. Then came the three most notable books, published in 1678, already mentioned, Philalethes' *Ripley Revived*; Basil Valentine's *Triumphant Chariot*; and Geber's *Works*; those last two edited by Richard Russell.

After this the production of new works and the reprinting of old begin to slacken; thus in the next ten years, I can refer to only four books. One is by Becher, *Magnalia Natura, or the Philosopher's Stone lately exposed to Public Sight and Sale*. It contains an account of how one Wenceslaus Seilerus made a successful projection before the Emperor at Vienna. It is a curious story which hardly bears repetition, but Becher, who was on the Commission to investigate the matter, seems to have had no doubt about the virtue and reality of the powder.

Other two of the books are attractive because of their contents and rarity, and both were printed for Cooper. One is the *Collectanea Chymica*, 1684, the other *Aurifontina Chymica*, 1680. The last of the number is a tiny pamphlet of date 1688, and is a translation by Christopher Packe of 153 *Chymical Aphorismes* with one or two additional tracts.

About this time Packe published Glauber's *Complete Works* in a large folio volume. In 1690 appeared the *Aphorismi Urbigerani or Certain Rules clearly demonstrating the Three infallible ways of preparing the Grand Elixir or Circulatum majus*. This is by Baro Urbiger, and he makes

no mystery of his material, provided always that he attaches the same meaning to the names he uses, as we do. Of this I am not quite certain, and I have not had time to verify the good old motto on his title-page: *Experto Crede*. In 1691 appeared a rather interesting volume by the notorious William Salmon, *Medicina Practica*. To this he added translations of Hermes, Kalid, Flamel, Geber, Artefius, Roger Bacon and George Ripley, and arranged them in chapters and clauses for facility of study. Salmon was something more than an alchemist. He practised medicine and pharmacy and wrote books on art and technical subjects, and had a good reputation as a scholar.

Bernardus Penotus was a chemist and physician. Certain tracts by him were published as early as 1593, but in 1692 an English translation was made of his book, *The Alchymists Enchiridion*, in which he treats both of receipts for curing diseases in man and the practice of the red and white elixir for the betterment of the metals. The volume contains also the dialogue of Arislaeus and a reply to Nicholas Guibertus, who denied the possibility of transmutation. Philaletha's three tracts were printed in 1694, and in 1696 an anonymous author wrote *Sanguis Naturæ, or a Manifest Declaration of the Sanguine and Solar Congealed Liquor of Nature*. In these books there seems to be a greater tendency to emphasise the material side of Alchemy. It was becoming infected more or less by the progress of chemistry in the hands of the metallurgists and such experimenters as Boyle, Stahl, Lemery, Becher and many others.

In the 18th century, the publication of alchemical books in English fell off in a marked degree, and of those which I have noted I have not seen more than nine or ten spread over the century. The pursuit of the subject had dwindled almost to nothing, or else it was pursued in private and its devotees studied the old literature. That may account for the scarcity of that literature now—it may have been destroyed by hard usage.

In 1702, and then in 1704, a certain Cleidophorus Mystagogus published a pamphlet called *Mercury's Caducean Rod: or the great and wonderful Office of the Universal Mercury, or God's Vicegerent, displayed*. This is an exposition of the whole art, and the author who was well read in the ancients, after discussing the subject in its theoretical and practical aspects, quotes historical evidence of transmutations actually performed. Careful perusal of it might throw some light on the bodies employed and what they were supposed to be able to do.

In 1714 a little volume appeared "by a Lover of Philalethes," containing *A short enquiry concerning the Hermetick Art*, to which was annexed a *Collection from Kabbala Denudata* and a translation of *Æsch Mezareph or Purifying Fire*. The first part is an exposition of the mystery by a collation of parallel passages, but the fundamental difficulty is not thereby much lessened without a fuller explanation of the terms employed, than is given. For the writers

had a way of juggling with their terms and names which, however ingenious it might be and suggestive to the initiate, is bewildering to the man outside. That, however, is part of the hunt for the Green Lion. About 1732 there was another pamphlet published, called *Wisdom Reputed Folly, or the Composition and Reality of the Philosopher's Stone*. This is dedicated to the Royal Society. Like the preceding tracts, it is an analysis of parallel passages from which is deduced the constitution of the Stone, and as in very many others, the conclusion is that it is fruitless to seek for the generative principle of gold outside of gold itself. The difficulty lies in getting this principle and using it.

The Hermetical Triumph or Victorious Philosopher's Stone, which was an early production, a commentary on the 'Ancient War of the Knights', was published in English in 1723, and reprinted in 1740. This is an allegory capable of various interpretations.

Thirty years later, in 1770, there was published a pamphlet entitled *A Guide to Alchemy, or the grand secret laid open*. It professes to declare clearly the first matter, and the method of operation, and to explain the figurative terms in which the secret has been concealed for ages. But one cannot say that the illumination in this brief abstract throws any more light into the dark recesses of the subject than other works that have been enumerated already.

But the notable thing is that the literature fizzled out—I can use no other term—in the 18th century, that sceptical century of credulity and superstition—and the art itself landed finally in the hands of Cagliostro and such persons.

It was pushed to one side by the chemists who were making discovery after discovery, while the alchemists could only reiterate the old formulæ and phrases about the generation of metals from an ideal sulphur and mercury, which could never be obtained.

So in the nineteenth century there is no new investigation on the old lines, and the only work in English which I remember at the moment that may be called original, is the *Suggestive Inquiry into the Hermetic Mystery and Alchemy* published in 1850, and which I believe, was withdrawn from circulation.* That too is a work which would occupy a whole discourse, and I am unable to consider it here.

A collection printed nearly a hundred years ago, in 1815, was *The Lives of the Alchemystical Philosophers*, said to be by Barrett, the author of *The Magus*. Besides the lives, the book contains reprints or original translations of a number of tracts, but the lives are not very well done. It was revised and remodelled by Mr. Waite, but I doubt if it deserved the trouble bestowed on it.

* I understand that a new edition, edited with an Introduction by Mme. Isabelle de Steiger, will shortly be issued by Mr. Tait of Belfast.—EDITOR.

Somewhere about twenty years ago the nineteenth century made its contribution to Alchemical Literature in a series of reprints and translations which brought the old and difficultly attainable literature within reach of the modern student of Hermetic lore.

I may add a note here of those that I have seen:—Dr. Westcott's reprint of the translation of Flamel's *Exposition of the Hieroglyphical Figures* . . . 1889; a reprint of the *Collectanea Chymica* (Will. Cooper?), 1893; a reprint of John Lilly and Meric Casaubon's edition of the works of Edward Kelly, with an introduction by Mr. Waite; and the following new translations, all edited with useful introductions by Mr. Waite:—Basil Valentine's *The Triumphant Chariot of Antimony*, 1893; Benedictus Figulus' *The Golden and Blessed Casket of Nature's Marvels*, 1893; *The Hermetic Museum*, 2 vols., 1893; *The New Pearl of Great Price*, attributed to Peter Bonus, 1894; *The Turba Philosophorum*, 1896. Besides these there was a series of reprints, and new works entitled *Collectanea Hermetica*, edited by Dr. Westcott, some of which are of alchemical interest:—Espagnet's *The Hermetic Arcanum*, 1893; *A Short Enquiry concerning the Hermetic Art by a Lover of Philalethes*, 1894; *Æsch Mezareph, or Purifying Fire*, 1894; Vaughan's *Euphrates, or the Waters of the East*, 1896. The original editions of these have been quoted in preceding paragraphs.

I had nearly said that these were all, when I remembered that a collection had been made of Paracelsus' Chemical and Hermetical Writings, translated and published in two volumes, and edited by Mr. Waite, in 1894. This brings together all the works of Paracelsus, which are of particular interest to this Society, as distinguished from his medical writings.

I have put now before you a very brief enumeration of the English literature of Alchemy, during three hundred years. It is not complete, for I have omitted books that I know, and have no doubt that there are many that I do not know. If I were to scrutinize the catalogues of the British Museum or the Bodleian Library, I am certain that I should find numerous works to add to the present sketch. But I may say that, except from the bibliographer's point of view, there is ample material in the books now quoted for the most devoted disciple of Hermes to study and digest, and if from these books he cannot get an answer to his questions, or a clearing up of his doubts and difficulties, I can hardly think that the addition of any more books, equally obscure, would help him. But what has now been said may put some of my hearers on the hunt, and they may be rewarded by the discovery of something hitherto unknown which they may be able to communicate to this Society. I hope so, and wish them all success.

What little I have read of these books and of comments upon them seems to me to refer plainly to a metallic transmutation. I have seen in the whole of them, except in a very few, nothing that suggests a mystical or religious signifi-

cance, without a transfiguration of the apparent meaning of the words, which would be much more difficult for me—I speak only for myself—to understand and interpret than the metallic transmutation itself. If such a meaning can be taken out of the words, it is hidden in them more profoundly than the seed in the philosopher's gold, and that is recondite enough for most students.

But when one sees the fuss that Starkey made about the Alkahest, which seems to be ammonia gas or perhaps ammonium carbonate, it is not at all surprising that the obscurer phenomena to them of, say, oxidation and reduction, or the action of sulphur on other bodies, were not only unintelligible, but came to be endowed by them with mystical or transcendental properties, because they could not be otherwise explained.

It is very difficult to sift out the actual facts from their defective or misunderstood and confused descriptions, and when to that is added their effort to conceal what they supposed took place, shifting their terms from one thing to another, the task of interpretation becomes in many cases quite futile. So at least it has appeared to me.

One of the books which was not mentioned under 1652 is entitled in the fanciful manner of the time: *A Hermetic Banquet drest by a Spagirick Cook for the better preservation of the Microcosm*. Personally I feel the sort of spagirick cook "toiling in Geber's kitchen," to quote an old phrase, who might be employed by Hermetical Barmecides. For after you have come to what should have been a feast, I have put before you nothing but an array of dishes, not altogether empty perhaps, but with their contents raw and unprepared.

I am aware of that, but to tell the truth I have been endeavouring to bring together in some sort of order—chronological as it happens on this occasion—material which has not been dealt with in this way as a whole, and you must accept this as a mere preliminary sketch map of the ground, which may be and ought to be surveyed more exactly, and a critical review of the Literature of English Alchemy prepared.

Even as a preliminary it is defective, as I have said, for I have dropped a number of things of which I have some record, just because I was afraid that a prolonged enumeration of authors and titles might prove tedious. I hope it has not been so, and that what has been said will help towards the elucidation of those parts of the subject which have not been examined, and will suggest themes which may be brought up and discussed at the meetings of this Society during the coming or some future winter.

THE JOURNAL OF THE ALCHEMICAL SOCIETY

EDITED BY H. STANLEY REDGROVE, B.Sc. (LOND.), F.C.S.

VOL. II. PART 7.

NOVEMBER, 1913.

REPORT OF SEVENTH GENERAL MEETING.

THE seventh General Meeting of THE ALCHEMICAL SOCIETY was held at 8.15 p.m., on Friday, November 14th., at The International Club, Regent Street, S.W. The chair was occupied by the Acting President, Mr. H. Stanley Redgrove, B.Sc., F.C.S.

A paper was read by Mme. Isabelle de Steiger on "The Hermetic Mystery," which was followed by a discussion. (The paper and an abstract of the discussion are printed in the present number of the JOURNAL).

A vote of thanks was passed to Mme. I. de Steiger for her paper.

The Honorary Secretary announced the names of new members.

THE HERMETIC MYSTERY.

By ISABELLE DE STEIGER.

IN this paper I shall endeavour to give you, as far as I can, some idea of what is meant, or what I mean, by the title—"The Hermetic Mystery." This word "Mystery" does not imply quite the same as "Doctrine," but practically, as you will see, the one is included within the other.

The Hermetic Mystery refers to the Art of Alchemy, "The Royal Art," as this science is described.

The Hermetic Doctrine implies those connate philosophical and religious concepts, required to be held and put into practice by alchemists.

Broadly speaking, I may say I consider it is that primitive heavenly doctrine underlying all formulated religions; but as Alchemy comes more directly through Christian sources, I use the word "Christian" as more especially explanatory of the religious views of Western alchemists.

In these days of the great expansion of knowledge concerning comparative religions, it will not be necessary to enquire as to the relation between the religion of the Western alchemists and of their Eastern brother-artists.

Please note the use of the word "artist." We say that the poet, artist, and doctor, are born, not made. The same assertion is true of the alchemist. And I would like here explicitly to remark that I find that Professor Bergson's idea of intuitive intelligence exactly covers much of the

meaning of the alchemists as to mental requisites, such as intuition or understanding to grasp the situation, intelligence plus instinct to make and use the tools required for the work, that being for the purpose of creating, as an artist creates, an already conceived idea, which idea can only be manifested to other eyes by means of the tools he uses in order to demonstrate it. Here, a very strange thing may be noted with regard to tools, for in the case of Alchemy, the first tools that man could ever, and must for ever use, were and are his hands. "Thine own right hand can save thee," we read in *The Book of Job* (Ch. xl., v. 14).

I will begin with the first of my affirmations, which is, that in the Hermetic Mystery, lies the *Art of Alchemy*, and proceed to say that the subject on which this Art was practised was *Nature*: not nature in general, but nature in particular, in a word, on nothing else than man himself. It was understood by the Sages that man was "demonstrated to be a compendium of the whole created nature (Kabalistically called a microcosm) and was generated to become wise, and have dominion over the whole of things, *having within him*, besides those faculties, which he exerts ordinarily—the germ of a higher faculty or wisdom, which, when revealed and set alone, all the forms of things and hidden springs of nature became intuitively known and are implied essentially." [*A Suggestive Enquiry into the Hermetic Mystery and Alchemy*, 1850, p. 155.] Man, therefore, is the subject of the Hermetic Mystery, and the Royal Art is that Art which reveals and "sets alone" the germ of Universal Wisdom. This germ is called the Pearl of Great Price.

The work on *Superhumanity*, which I am bringing out as a serial in *The Path*, deals with the duality (inevitably pre-existent in the first move from homogeneity) subsisting in man from birth, inasmuch as he has a germ of death (the *gluten* of Eckartshausen), as well as the germ of life, in his heart, that is in his blood. The germ of death has to be eradicated in its special organ, the body, which is the task for present day medical art, since this works from secondary causes; but the art of revealing and bringing to the light of day the Pearl of Great Price, is the Hermetic Art.

My second affirmation is that the *first matter* from and out of which the Philosopher's Stone is differentiated is truly the *Cosmic Ether*. No doubt you will say that that term is too general or vague. What, I shall be asked, do I mean by "Ether" or by "first matter"? By "ether," the alchemists meant a certain matter; they called it "a substance," as opposed to any notion of mere existence derivable from some prior cause; "Substance" to them implying causation and potency; "matter" or "existence" signifying effect, dependent on prior cause. They considered ether to be that *prima materia* out of which all things, man himself included, was made, signifying thereby the "nothing" that Theology calls

the "dust of the Earth." This is the "First Matter" containing all existent matter. Thus "the dust of the Earth" meant to the alchemists undifferentiated Cosmic Ether, holding potentially all forms, shapes, destinies, varieties of all things and in all kingdoms.

The ancient and mediæval alchemists held that the elements, fire, earth, water, were but constituents of the Ether, not one being simple, *i.e.*, consisting of only one element, but partaking of each other; and when they meant to speak particularly of a quality of the Ether, they described it indifferently as fire, dryness, heat, light, etc. By "air" they never meant only the immediate atmosphere, which we inhale. They said also that no one quality was unmixed. Consequently they used the terms with confusing, apparent indifference, but if one reads into their descriptions the words "Cosmic Ether," to mean the One Thing, when they described a dozen, the clue to the labyrinth gets firmer in one's hand.

"Universal Spirit" is also a term representative of the Alchemical Essence. It is mentioned by Mr. Pattison Muir, in his *The Story of Alchemy and the Beginnings of Chemistry* (1902). Sendivogius is certainly not referring to water, or at least to our water, when he speaks of the "solvent of the world," but is describing the Cosmic Ether. He says, writing as an alchemist:—It "is the solvent of the world, and exists in three degrees of excellence: the pure, the purer and the purest. Of its purest substance the heavens were created; of that which is less pure the atmospheric air was formed; that which is simply pure remains in its proper sphere, where, by the Will of God, and the co-operation of Nature, it is guardian of all subtle substances here below." [*The New Chemical Light*, see *The Hermetic Museum*, ed. by A. E. Waite, (1893), vol. II., p. 133.] The simply pure Ether is referred by the alchemists to all earthly things. The word "substance," as I have indicated, is used by them to imply reality, causality, permanence, self-motion, immortality, etc. A substance to them was not described by weight, immobility, solidity, ponderability or any of the usual qualities, which we now regard as attributes of substance. The true substance, they taught, energizes behind, beyond, yet also within, all existence. The "First Matter," to them, was purest substance, emanating with vibrational energy, in inexhaustible supply and source, from the great Universal Life. This "First Matter" is that which informs and pervades all things here below, enduing man himself and all nature with life.

The Universal Life has God for its Source; it is, indeed, none other than His Breath. The Vedanta and the Bible both tell us the world and ourselves live and breathe by, in and through God. This Universal Life has for its conducting channel and medium, the Cosmic Ether. Its divine condition

is however such that unless adulterated with less pure Ether man, since his fall, could not live in it, for the purest Ether can kill, as well as cause life. We have its analogy in the phenomena of radioactivity. The Greek name for the purest Ether is *Eleuthera*.

The purer Ether, which is called the "Free," "Sideral" or "Astral Ether," gives life in another degree to our Souls, and according as it energizes in each of us do we all differ temperamentally from one another.

Now I come to the third and lowest, or merely pure, Ether, which is our Cosmic Ether, in which we directly live and breathe. This is not free; it is bound and attainable, from and out of which are extracted those qualities of Ether known to us as magnetism, electricity, radioactivity, etc.

The ground of the alchemists was this, that man being body, soul and spirit, he must hold within himself the three degrees of Ether or Universal Life. They believed that man was meant to be an immortal, perfect being, that he was so once, but that owing to circumstances, which in western Theology we briefly term the Fall, the *Eleuthera* or source of immortality and life itself, is no longer paramount in man, on the contrary, being latent, dormant, and though inextinguishable, it is, as far as man can benefit by it, so latent that it is as useless to him as is the outer shell of the oyster to the pearl seeker.

They said that within man lies life and immortality, and yet man as he is, is described by them also as a mere elemental, weak creature subject physically as much now as ever, to the power of the elements, also to evil, death and corruption. They called him a fragile, porous, impermanent being, but they maintained that God did not create such condition, and that it is man's ignorance that keeps him in slavery to his outer and unreal self.

Now, some men greatly daring, but in true humility, found a method by which they could recover the buried treasure, and once more breathe directly and not indirectly from God. This Great Art of Recovery, the refinding of the lost Jewel, the true Life of man, is the Art of Alchemy, —the search after the jewel or the method to perfect nature.

Now I must attempt to say in what that Art consists. We have seen that the alchemists affirmed that man was once illuminated with all Wisdom, and that he was once immortal. They knew that no corruptible elements could be immortal. I refer especially here to the writings of three of my favourite authors:—*The New Pearl of Great Price*, *The New Light of Alchemy*, and those of "Eugenius Philalethes."

The alchemists knew that gold was the visible thing that was incorruptible. They had therefore to discover what there was in man that was analogous to gold, and this they affirmed, was the immortal part of him, which they decided was *not* his soul, for that, though capable of survival, was

subject to change. They also concluded that it was certainly not in the physical life of man; but that in the *Eleuthera* or purest Ether alone could immortality be found, and that *Eleuthera* subsisted in man.

We do not know the various stages of thought through which the knowledge of this discovery passed. My own idea is it never did pass through the crucible of a man's ordinary brain at all. I firmly believe it came originally, as does all supra-knowledge, by inspiration through man *in trance*, and is the utterance of his inner, perfected sensorium. This, when the Trance is a true one, is the only direct source of Divine inspiration.

The alchemists concluded that this incorruptible matter must be the One Thing, and they finally described it as a Stone, probably merely to abbreviate the description of the qualities which they could at once assign thereto; but it was named the *Philosopher's Stone*, as it could be no stone to any but a philosopher's mind. To the ordinary mind, it could be described in a thousand ways as it was *no known thing* at all.

The language concerning this matter has been described as "jargon." Jargon it was not, but a cryptographic method of description, because no one term describing the First Matter was convenient to use; but doubtless there was much tiresome play of words sometimes, or what seems so, incidental to many causes.

That chemistry, a science which seems to have existed for ages in the East, furnished the terms in which the alchemical introspection into nature was conducted, we all know. It seems highly probable to me that the philosophic student of those days had little else but chemical and medical knowledge on which to set up as a learned man, and he would naturally use terms which were familiar to the science of the day. Probably all the alchemists being born "searchers into nature" had more than the usual amount of chemical knowledge.

Now there was from ancient days a philosophic theory that the centre of each man is asleep, that is enchanted and awaits divine or magnetic fire to awaken him. The story of the Sleeping Beauty and many others of the beautiful old stories of classic and mediæval days are founded on this theory. The Art of Alchemy was neither more nor less than that of awakening the "Enchanted Centre" by its redemption from its prison since the Fall. The fairy tales concerning magicians and beautiful princes are only stolen or betrayed records of wondrous events taking place, not in enchanted or moated castles, Saracenic, Moorish, Gaulish or British, but in quiet silent rooms, probably the library or laboratory of the alchemist, according as his studies or temperament led him to literature or chemistry.

The Royal Art was, then, that of extracting from a

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You will at once say, This is mere speculation, you can give us no proof, neither do you yourself, perhaps, know of it otherwise than as a theory. I reply, Yes and no. Certainly the alchemists all agree in telling us that it is necessary for a philosopher to make good his theory before he proceeds to the *praxis*. Well, I submit, I can give you no proof, but if you could enter into the theory, I think you would find it could be proven. At all events, though I only speak now as if it were but theory, yet you will see as I proceed, that there are facts which you may not yet suspect, redeeming my theory from its present transcendental position, which position may not, until you have thoroughly digested the theory, appear adequate.

The art of mesmerism, which we now despise or ignore, except as a by-play of science, or misuse alas, was once the sublime secret of the master-men of each century, which they were enjoined to keep inviolate, because it was found that qualities and conditions between souls *were interchangeable*, and many mysterious and extraordinary results took place, that made it a necessity that a Magus or a Sage should be what was termed a Holy man, *i.e.*, one who held the secret of the Philosopher's Stone in all its conditions, and also that none but a man of proved spiritual state should be Priest or occupy the functions of the Master of Ceremonies: those of a lesser degree of purity of thought and aim being assistants only. This was the original condition, and the priests in olden days were no doubt men of the highest type. But there were lapses, and here and there the magical secret would leak out and be used for other than the true end. Finally, the knowledge of only a small portion of the true method remained, and that almost died away, but not altogether, for such a wonderful secret for humanity could not be utterly lost, and it was preserved as of the utmost importance in "The Mysteries," and afterwards in the Secret Orders.

It was always the same teaching—that that counsel which emanated from the holy trance utterance should alone be considered divine. I feel convinced that this key of knowledge was the one used by the alchemists. They were, so to speak, free-lances, but, being men of ardour and vigour, they by degrees formed a sort of non-cohesive order of solitary searchers. These men, with others who really might have belonged to existing secret orders, constituted a sort of understood hidden society not requiring any ordained hierarchy, and a cryptographic correspondence would necessarily ensue.

As time went on, and as what may be called the magical power of the orthodox priesthood died out, the sporadic growth of alchemists still continued, and such men certainly

were viewed with anger by the orthodox priesthood and those who considered mesmerism as truly the gift of God; but the alchemical secret is just what makes the Royal Art quite different from that mesmerism which is generally known.

It is clear that Mesmer was not the first to discover the art called by his name, but in his case betrayed the secret. However, the amount of mesmerism he knew and divulged was, perhaps, no more than that which had survived and was practised by the hierarchs, who, under all their different names, headed the Secret Orders in later times. This special secret method is one which though I do surmise, I must do as I was told, *keep inviolately* until someone else discovers it. It may be plainly inferred in its entirety from what is said in *A Suggestive Enquiry into the Hermetic Mystery and Alchemy*, a new edition of which is forthcoming. I do not want to state what I have just said with the pretension of making myself the custodian of any great secret; but because it is a certain something in the method of applying the art of mesmerism which can only be declared, so to speak, in the alchemical work itself.

I need not tell you that mesmerism is the key to magic, known to every race and time. It has been reserved for this period since Mesmer utterly to misunderstand, misapply and underestimate this extraordinary faculty, which, with respect to derivation, at least, may be called the gift of God. But modern hypnotism and its correlatives are truly as devilish and harmful to agent and patient as pure mesmerism is heavenly and beneficial. Now the aim of the alchemists was to discover and bring to light the immortal part of man, because if once this marvellous matter could be seen or handled, it would *pari-passu* be no longer dormant, but most truly living. They also knew that there could be no vessel that could hold life. Life is not constituted as a grain or as an atom that could be extracted or drawn forth, exhibited to shew its power in giving life.* They knew all this, yet they proceeded to the work; and I certainly think that there have been cases when "life" of this kind has been surely brought to the light of day, for the true alchemists were no liars.

Now, one of the many maxims of the alchemists is that which exhorts the seeker to dissolve the fixed, and fix the solved. What did they consider as fixed? According to the eye-sight of man, his physical body is "fixed." To the modern scientific eye, certainly not, but the alchemist held a theory which differed from the common idea, that the body tightly encases the soul, and the soul tightly encases the spirit. The first work, then, was to unfix the body. This was the "first gate." According to the old view of man he

* Its nearest demonstrated analogy is no doubt to be found in the phenomena of radioactivity.

contains as *minutem mundem*, in his three principles, as their vehicles, all the constituents of the kingdom of nature. Man, having been thus completed, combining all elements in his humanity, was Hermetically "sealed" by the fiat of the Almighty. The next step was for man to become super-man by permission of the Almighty, through His appointed messengers, who had the requisite knowledge to unseal the Hermetic signature. Man is always seeking for entrance into the higher order, for the Kingdom of Heaven can be taken unlawfully, or lawfully. The "Royal Work" of unsealing is true Alchemy; whilst true religion is another method suitable to the mass of men. The end of both is the same. Ignorant mesmerism is violence without the Kingdom of Heaven or treasure being found.

The first work, then, is to undo the Hermetic Signature and separate the "principles." You will find allusion after allusion to this process in the writings of the alchemists, but by mistranslating the words you may understand them differently and find nothing. The magnetic fluid and the linear action have the extraordinary effect of de-polarization, and every one knows how a human being when mesmerized can appear *pro tem* to be dead. However, I do not intend to deal with this process in detail. Suffice it to say, that all the descriptions of "Diana's doves," "flying eagles," "gates of brass," various colours and so forth, refer symbolically to the apparitions beheld in the astral realm by the emancipated soul. May I also say that the alchemist should be no common mesmerist, but have a clairvoyant and hierophantic vision within agent and patient? Those of you who have investigated such matters must have known or heard of those extraordinary events which are said to happen in the spiritistic séance-room where there is no hierarch (that is, a clairvoyant alchemist) present, and may have given a general acceptance to the term "externalized soul," as applied to mysterious appearances similar to those known as John King, Katie Cook, Samuel Wheeler, and such like, though no one has conclusively settled what these appearances really are, or of what quality of matter they are composed. I suggest, in these and similar cases, that they are not as spiritists contend, distinct personalities, and, certainly, they are not the ecstatic and whole soul of the sleeper; but might they not be disordered compositions of free ether, adulterated with astral matter, exuding from the bound Ether composing the body, through a certain unhallowed lesion of the nervous system; the result of the mesmeric traction of a strong discarnate spirit; or, of a natural lesion of the medium, operative at special times? It is, I think, in consequence of this chronic condition that this ever-gaping aperture permits the ingress and egress of free Ether in an unlawful and disorderly way, causing that too easy *rapport* between the universal and the physical, productive of what is known as mediumship.

I use the words "unlawful and disorderly" because, according to the Hermetic Teaching, there should be no such aperture.

The allusion to Christ knocking at the door has mystic reference to what should be really *not* an aperture, but a closed door to all but The Honoured Visitor. The "Closed Palace of the King" is not a mere poetical title. Plato speaks of "the odylic wound," and he refers darkly to the possibility of its being healed. There is a passage in Sendivogius which is very pertinent to this, but as I have said so much on this subject in my book, *On a Gold Basis*, I shall not make any quotation here. You will perceive, however, that for any agent to inflict the wound, and force the unlawful egress of the partial, unprepared, startled soul into the atmospheric condition, is the crime which may be perhaps *the one* that is not forgivable in this world, or the next, because the consequences are beyond that agent's power of healing. Who can pardon the robber? "Break not the Superficies," says the old classical, Hermetic maxim, "or the Sin of the Patient may be referred or multiplied in the Agent." Was it not the hand of an inquisitorial, rather than that of an instructed Master which tormented the unhappy soul of the poor French girl, who had to bear the internal laceration, and in reply to her vivisector said she was Leonie I, Leonie II. etc.? She would have replied in any way that her dissected soul perceived to be according to the questioner's desire. There could be no truth or revelation, neither unhappily, any due restoration to its lawful place for that hapless creature's "Piece of Silver," ten of which she had owned, one of which was dragged out of her. It was the duty of a true master, not further to have dissolved her soul, but to have fixed the solution. When, so to speak, the operation was over, did the unqualified hierophant know where and how to replace and to fix the disintegrated atom of "First Matter"? That deeply important action, in which one human being "entrusts his soul to another," is lightly dismissed from the curriculum of present day study as one of no material value, whereas it is the opening of the first gate by the magical lance with the knowledge of "pyrotechnic artifice." I might read you pages proving this from *The Suggestive Enquiry* and elsewhere, where those romantic sounding words sometimes seem to lead you up to some conceivable chemical experiment, and then lo! the usual baffling jargon commences. But with the key, the apparent jargon can be turned into readable sense. However, let us now having the first key, Mesmerism, proceed to unlock further mysteries. It is conceded that there has appeared at spiritistic séances extraordinary apparitions, seemingly of human beings—a sort of strange simulacra, however, in most cases, though one *has* heard of beauteous appearances. Often there is a sort of a cloud-like vapour exuding from the

side of the entranced sufferer, for the medium must be and is truly a sufferer and victim, for the operator is as unprepared as his patient. Listen to these words of "Eugenius Philalethes,"—

"It was scarce day, when all alone
I saw Hyanthe and her throne.
In fresh, green damascs she was drest,
And o'er a sapphire globe did rest, . . .
And underneath her hand was spread
The white supporter of her head.
But at my second studied view,
I could perceive a silent dew
Steal down her cheeks; lest it should stayne
Those cheeks where only smiles should reign.
The tears streamed down for haste, and all
In chaines of liquid pearle did fall . . .
So dy'd Hyanthe. Here (said shee)
Let not this vial part from thee.
It holds my heart, though now 'tis spilled
And into waters all distill'd."

[*Cælum Terræ*. See Mr. Waite's edition of *The Magical Writings of Thomas Vaughan*, 1888, pp. 131 and 132.]

"For," says *The Suggestive Enquiry* (p. 349) "not all was vaporous vision as we have shown, or mere idealilty on the internal ground; but experience there was present, with power and effect in substance to bear its witness. This marvellous subsistence of the Vital Principles in their extreme separation by Art, requires care and attention to apply the three-fold secret of the Art, so that the hypostatic principles of attraction, repulsion and circulation, may be brought into perfect equilibriate accord, the one no more acting, than the other is resisting in the Ethereal Bond." "Seek three in one, and again one in three, dissolve, congeal, and remember," says Khunrath, "most carefully to observe the three-fold law of the composition. I write not fables, with thy hand thou shalt touch and with thy eyes, thou shalt see Azoth, the Universal, which alone with the internal and external fire in harmonious sympathy with the Olympic Fire is sufficient for thee, by inevitable necessity physico-chemically united, for the consummation of the Philosopher's Stone," [quoted in *The Suggestive Enquiry*, p. 352, from Khunrath's *Amphetheatrum Sapientiæ Æternæ*, etc., Ch. viii.]

I must now direct your attention to a remarkable classical curiosity, namely the "Tear Bottle." No one quite knows what these bottles were, neither is the origin known of the strange title to an Italian wine called *Lachrymæ Christi*. This name has but correspondential value, but the tear-bottles have reference to some strange ceremonies long ago lost and forgotten. Nevertheless, if any one will reflect what

sort of tears are shed, when the soul is in deep grief and contrition, it will be concluded, I think, that they are a physical effect caused by the attrition and solution of that soul, altogether different from the usual eye secretion. For tears of pure sorrow are derivable from feeling and emotion only, not from any outside effect or any matter put into the body, neither have they any further purpose to serve, but that of evaporation and return to the Cosmic Ether. Now, the alchemists carefully noted the correspondence between physical and psychical, and used terms that apply and explain the one by the other, but with this qualification, that the words used in descriptions of the various processes are often displaced, purposely no doubt, and though each process is described correctly, the words used may be applied to other stages. Each alchemist used his own class of terms to imply his own results, and the reason he did so, was to prevent unworthy and unfit men meddling with another person's soul-life. A certain possibility and condition of *will* and *knowledge*, I will not say whether of agent or patient, coming to the knowledge of a man of selfish and ambitious nature was at all costs to be avoided, for it was known that men and women only of the highest possible strength of character, unswerving probity and honesty of purpose, can stand the great temptation.

In the *Cælum Terræ* of "Eugenius Philalethes" you will find this caution, as also in many other places, very strongly put. [See Mr. Waite's edition of *The Magical Writings of Thomas Vaughan*, 1888, p. 138].

Religion, classical philosophy, the kabala and astrology are, indeed, inextricably mixed up with Alchemy.

My theory and that of *The Suggestive Enquiry*, on which it is based, may, to many, be altogether disappointing and seem to form a quagmire, rather than a firm ground for enquiry and research. You may, indeed, think all that I have so far said as very remote from what is considered to be the aim of Alchemy, namely the transmutation of metals and the art of making Gold. Well—let us see, and I do not forget that the alchemists claimed also to have discovered the Elixir of Life and Universal Medicine. Professor Pattison Muir, in his little work already referred to, says: "the language of the alchemists was rich in such expressions as these . . . 'our arcanum is gold exalted to the highest degree of perfection to which the combined action of nature and art can develop it.'" He then proceeds to say, "such commingling of ethical and physical ideas, such application of moral conceptions to material phenomena was characteristic of the alchemical method of regarding Nature. The necessary results were; great confusion of thought, much mystification of ideas, and a superabundance of *views* about natural events." [i.e., p. 30.] So far Prof. Pattison Muir. His conclusion would be perfectly just, if there were no

Ariadne's clue to lead one out of the labyrinth. But the mistake is too often made of assuming that the alchemists were all men of confused thought and mystified views, men, moreover so supremely silly as to add to their nonsense by using words known in the general world to have specific meanings. Truly they would have been considerable fools indeed, if century after century, they had, at hap-hazard and in real ignorance of the nature they professed to examine, used term after term, writing the same to each other, and studying with extraordinary zeal and respect, everything that those whom they considered masters wrote or had ever written. To me it is surprising that modern commentators are not more careful in their criticisms of the alchemists, and that they do not feel intuitively that they are dealing with men who were not concerned with chemistry as we understand it, but were Philosophers who were dealing with *Arch-Chemistry* and vitality itself, who had for their aim the loftiest problem that can engage the soul and brain of man. The alchemists openly disclaimed common chemistry; but in order to hide their *Arch-Chemistry* they used ordinary terms to which they attached other meanings. Their language, however, was no disorderly "Volapuk" but had an ancient pedigree. This is true of "sulphur," "mercury," "Green Iron," "Our Water," "Magical Earth," "Our Chalybs," "The Crow which is the blackness of the night and the clearness of the day," "Fiery Dragon," "Salt," "Sulphur" and "Mineral Radix," and a host of other terms.

You will ask me whether I believe in the possibility of the Elixir of Life and the Universal Medicine. Well, I do in their possibility and with reference to the *arcanum* of the Art, but not in the probability of their being soon found. The search implies too much unselfishness and devotion to be carried on now. But eventually, I do not doubt that some wonderful new discovery apparently will be made, which will put mankind on a safer basis, so that the Art of Alchemy or the spiritual resuscitation of man can be safely worked for his superb benefit. You will ask me, too, whether I think gold can be made by any of these apparently spiritual recipes. Yes I do, but much by the means that rubies and emeralds are made artificially now, namely, by tremendous pressure, which in the case of gold will be obtained by the transference of the spiritual force to another field of action. The alchemists always regarded light as a force, what they referred to as the *Light of Life* was an inconceivably great force or pressure. They worked *with* and *by* life, which they describe in various ways, as fire, heat, etc. You feel, no doubt, that this is still all on an abstract ground with no reference to alembics or furnaces or any of the paraphernalia of a chemical laboratory. Neither is one required, for as I have said Alchemy is *Arch-Chemistry* only. No doubt among enquiring and not very loyal "assistants," many things leaked

out, which their acute and sharp minds perceived and applied to physical conditions, with pathological directness. In consequence, I believe, as modern and physical chemistry grew and prospered, the arch-chemistry gradually withdrew, leaving men, such as Van Helmont, Glauber, Stahl, Boyle, etc., as only partial initiates and, as such, probably never knowing the *secretum secretorum* of mesmeric work, to settle down in degrees to the study of chemistry in the ordinary way.

It will also seem, perhaps, an eminently unsatisfactory trend in my philosophy to give such important position to that obscure and what many people consider undesirable phenomenon, namely that of trance. But I think if more study were directed to this subject it would be found that it is one of unprecedented interest and value. I am not stating my own words in saying that Revelation to be of universal importance such as are all Sacred Writings, must be given in deepest trance only.

Kant, I believe, decided that no knowledge that does not refer to phenomena can be known except by revelation, through inspiration. All such matters were deeply studied by the ancients, who, to my view, were occupied on profounder problems than moderns have imagined. Prof. Bergson demolishes in a splendid manner the mechanical notion involved in Spencer's philosophy. He describes, in his *Evolution Créatrice*, the radical error underlying Spencer's concept of evolution. Spencer integrates the evolved with the evolved, failing to see that he is thus taking useless trouble, and that in positing the slightest fragment of the actually evolved he posits the whole, so that it is in vain for him to pretend to explain the genesis of it.

To get at and understand the genesis of matter was just what the alchemists assayed. But they never confused "existence," which they claimed as an "aggregate," with the "whole." It was this "whole" they aimed at. And they knew it could not be found on the outside of man, but they must seek the "Cosmic Ether" in living man, not dead man, nor yet as vivisectionists, but, to coin a word, as "pyschosectionists."

Prof. Pattison Muir [l.c., p. 32] says of the alchemists, that their "essence [or Ether] was supposed to have a material form, an ethereal or middle nature and an immaterial or spiritual life." His interpretation of their theory is not mine, but he is certainly right in speaking of the three principles, which are to be found in the "First Matter," i.e., throughout the substance of all nature; or there would be no life at all.

The alchemists conceived of life differently from the manner of modern philosophy. Life, they regarded as varying in quality and only symbolically commensurate with the plane of life enquired into.

Mundane and phenomenal life, they considered, was

vitalised by "Ether" of inferior quality, force and power, containing and expressing the elements fire, light, heat, air, etc., so they had to turn the key on the lock opening the door to the middle region, the first gate of which is the astral or cosmic circuit, which by them was considered as no real advance on this world, in any true sense, as it contained all the failures, derelicts, stray, unfinished forms, mental and bodily *debris*, and flimsy, foolish thoughts. It is the day-dreaming region, where all the castles in Spain rear their shining but unstable towers, where all the foolish fancies are born from rambling imagination without aim, beyond the self-satisfaction of the dreamer,—the mirror on which the events in this world are photographed, and the phonograph where sound is stored,—for in this realm everything is refracted, confused, reversed and disturbed, the big is the little, the little the big. It is the realm of the "Sphinx of Antiquity," where the traveller has to pause and stand to answer the famous riddle in order that he should be thoroughly equipped with theoretical knowledge of the new country and with character to sustain active trials instead of passive ones. This was the "phantasmal" region of Plato, which was the first trial to be encountered in the Mysteries, which formed part of the educational curriculum of every man of birth and position. No one could have palmed off astral wonders on such a man. Just as revelation reveals itself, so does falsehood. Let me hasten to say, that there is hence involved all the difference of what Swedenborg calls a "discrete degree," for there is no easy link between the trance of an ordinary sleep-walker, or a subject the functions of whose brain are inhibited from conscious action by a hypnotist, and that of the whole or complete trance of the Spirit in which other consciousness is not inhibited, but stilled and at rest, as in that sublime moment, when "God moved on the Face of the Water and said, Let there be light, and there was light." Then does intuitive intelligence, illuminated intellect, the very Truth itself, make itself apparent, i.e., visible as the Substance out of which the Worlds are built. But we must pause, and if you will take it all in a symbolical sense, I will merely say that gold is the phenomenal analogue to truth. With regard to the mysteries: In modern times we use the skeleton ceremony of Consecration into Holy Orders, which consists, so to speak, of the non-vital remains of what was once an efficacious rite. The term "Efficient Hand" is no idle term. It meant a human hand, holding the vitality of the Logistic Ray, the Golden Bough, conveying life to the moribund. I am not here speaking of physical but of psychical decline and death. The "Efficient Hand," holding the power of God Himself, is the Hand which strengthens and sustains the life of every man. And this is not all symbology. There is an ultimatum to all intuition for the course of the special forces, to the

destined end: the ultimatum and demonstration in Alchemy on the physical plane was in the Mineral Kingdom. By this I mean that the transmutation that reached the physical plane referred to metals only. The alchemists claimed that inferior metals could be raised to the superior or noble state, but never did they claim that the stuff of the Cosmic Ether could be transmuted into the next higher kingdom, that of the vegetable. Not a daisy can be made or created. The alchemists maintained that it was necessary to find the seed of each Kingdom, and they declared they had discovered that seed of metals, which would produce gold. This seed was "the powder of projection," but here I cannot give details.

There is one point yet to mention and that is, that the "occult chemistry" of Mr. Leadbeater and Mrs. Besant has, I think, no resemblance at all to the Arch-Chemistry of the alchemists.

I have given what I consider three strong clues, and a very important key to the labyrinth of Alchemy, and lest you think my key is a poor and disappointing one, let me beg of you with that key to try to unlock therewith the old-myths, classical and mediæval, and to find out the meanings of the Kabala and of those great poems, the Iliad, the Odyssey, the wonderful verse of Virgil, of Dante, and the cryptic stories relating to the Arthurian Cycle, the Holy Graal, and much else of a like nature, as well as the hidden meaning of the Old and New Testaments. They all tend to one discovery and declare the same, and even in their inconsistencies will be instructive to him who has the key. And he who sets himself in this wise to the comprehension of the whole philosophy will be a competent judge of our labours, of how much assistance we have given to the recovery of lost wisdom, and with what sincerity we have opened the way permeating into those ancient abodes of light.

ABSTRACT OF DISCUSSION.

THE REV. J. J. POOL, F.R.G.S., said that he had listened to a most delightful paper, for which he considered that the Society was greatly indebted to Mme. de Steiger. It was full of suggestive thoughts, and, without assenting to everything expressed therein, he found that his reason went along with it as a whole. One expression, however, he was inclined to query, namely, "the Fall of Man," because he did not think that nowadays one could believe in the doctrine of the Fall.

Mr. D. N. DUNLOP (Editor of *The Path*) said that he had listened with great pleasure to what he considered to be the best paper of its kind he had heard during the last twenty-five years. He considered that it had made plain an opportunity for the Society to undertake a great work for human-

ity, namely the practical work of Alchemy, mystically understood. That was what was needed and should be attempted.

Mr. A. E. WAITE said that he had listened to the suggestions of the last speaker with an interest only second to that with which he had listened to Mme. de Steiger's paper. The life requisite to the great alchemical experiment was the life of saintship, and could not be attempted by a Society other than a secret one. The ancient alchemists, he thought, were concerned with the same work as the mystics within the Church living the life of contemplation; but they had carried the experiment a stage further, and embodied the results of their experiences in symbolic texts. It was, he considered, the chief aim of the Society firstly to decode these texts, and thus gain the secret knowledge, which could then be practically applied.

THE CHAIRMAN said that there was no necessity for him to point out that the meeting had listened to a very interesting and suggestive paper. It might, in certain respects, seem a departure from previous papers, which had been mainly historical or interpretative on the scientific side, but the founders of the Society had always intended that every side of the subject should receive attention, the mystical no less than the other. He agreed with Mr. Waite that the chief work of the Society must consist in decoding the alchemical texts. It was the business of the Society to get at the root of the matter and produce a complete explanation of the origin and significance of Alchemy. Mr. Dunlop's suggestions were also of much interest, but such practical work was the business of individuals, rather than of a Society as a whole; though were it possible to reveal it, the Society would be profited by an account of any such experiment. He was inclined to think, however, that there was something intrinsically secret in Alchemy, mystically understood, something which was secret, not because it must not, but because it could not, be told to any but an initiate. Mme. de Steiger had spoken of this secret under many symbols—not all of which he understood,—but to him the most beautiful and significant was that of the wonderful fairy-story of Sleeping Beauty and the Prince.

Mme. DE STEIGER thanked the speakers for their gratifying expressions of approval of her paper. She hoped the suggestions she had made therein would be followed up by other members. In reply to the Rev. J. J. Pool, she said that the doctrine of the Fall of Man was the ground of the whole Hermetic theory, without which it would collapse. It was not possible, however, in the time at her disposal to attempt a justification of that doctrine, which must be accepted as a preliminary to the work of Alchemy.

THE JOURNAL OF THE ALCHEMICAL SOCIETY

EDITED BY H. STANLEY REDGROVE, B.Sc. (LOND.), F.C.S.

VOL. II. PART 8.

DECEMBER, 1913.

REPORT OF THE EIGHTH GENERAL MEETING.

THE eighth General Meeting of THE ALCHEMICAL SOCIETY was held at 8.15 p.m. on Friday, December 12th., at The International Club, Regent Street, S.W. The chair was occupied by the Acting President, Mr. H. Stanley Redgrove, B.Sc., F.C.S.

The Honorary Secretary announced the names of new members.

Sir Richard Stapley and Dr. Elizabeth Severn were elected Honorary Vice-Presidents of the Society.

A paper by Prof. Herbert Chatley, B.Sc., of Tangshan Engineering College, North China, on "Alchemy in China," was read by the Honorary Secretary. (The paper is printed in the present number of the JOURNAL).

A vote of thanks was passed to Prof. Chatley for his paper.

A Conversazione was then held, musical items being rendered by Mr. Gaston De Mengel and Mr. Nigel M. Parsons.

ALCHEMY IN CHINA.

By Prof. HERBERT CHATLEY, B.Sc. (Lond.), M.I.C.E.I.

THE ultimate origin of the Hermetic concept has been sought in various directions. Some ascribe it to Egypt, others to India. Dr. W. A. Martin, formerly President of the Imperial University at Peking, makes out a very good case for a Chinese origin in his book, *The Lore of Cathay* (Oliphant, Anderson and Ferrier, Edinburgh, 1901). It certainly looks as if there is a continuity of ideas on the subject in Chinese literature which cannot be matched elsewhere, and there is considerable evidence to show how the principles could have been transmitted to Europe from China. Particular mention should perhaps be made of the fact that the noted Arabic alchemist, Avicenna, was born on the borders of the Chinese Empire (at Bokhara).

The principal Chinese references to the subject are as follows:—The *Ko' Chih' Ching' Yüan'* = "Study-cause-mirror—(of)—discovery" = "The Mirror of Scientific Discovery"; and the writings of Lieh Tzu (Licius), Lu Tsu (also called Lu Yen and Lu Tong Pin), Chuang Tze, Kao Shang Tzu, and Tan Tzu.

These contain the ideas on the subject which were current in China in the latter part of the first Christian millenium. They abound in references to the transmutation of base metals into gold (Lien Chin Fa Shu) and the Elixir (Tan). In general they agree with European writings in employing bizarre symbols, in predicating a spiritual influence as a necessity for the alchemist, in requiring astrological correspondence of operations, in using mercury as the material for projection, in believing in the slow natural development of gold from other metals, in associating asceticism with immortality, and above all in postulating a sexual generation for all things.

The fundamental notions of transmutations are to be found in the famous Chinese classic, the *I Ching* (Change-Canon), commonly known in Europe as the *Yih King* (employing Southern pronunciation). This is a composite book consisting of —

(1) A scheme of diagrams (hexagrams), 64 in number, which date back to at least 1000 B.C., and possibly to 2000 B.C.

(2) A series of cryptic sentences containing moral and practical references connected with the diagrams, attributed to the founders of the Chou dynasty, about 1000 B.C.

(3) Elaborate commentaries made by Confucius and his disciples about 400 B.C.

(4) Further exposition and commentary made by the scholars of the Sung dynasty, about 1,200 A.D.

There has been considerable dispute as to whether the Confucian and Sung schools were correct in attributing deep scientific meanings to the oracular utterances contained in the old parts of the book, but there is some supplementary evidence in this direction, and in any case they certainly express the ideas which were accepted on the subject about 500 B.C.

The main principle involved is that of duality, the two antithetical quasi-sexual principles, Yin and Yang, affecting each other to cause a steady evolution with periodic variations. The words "Yin" and "Yang" originally meant "Bank-now-clouded" and "Bank-sun-strewn," and probably referred to the bright and shady sides of a river; but at a very early date they were used to indicate antithesis and sex-distinction. Their generally accepted meanings are "Darkness" and "Light," and various synonyms are employed for them, the most important of which are "White

Tiger" and "Azure Dragon," suggesting the beasts of European Alchemy. They are spoken of as the attributes of the "Tao" or Course of Nature, and as produced in the beginning (not necessarily the beginning of time) by differentiation of Tai Chi, "The Great Extreme." They form the breaths or Prana which animate the universe and give it its polar and sexual character.

The next step is the mutual combination of the Yin-Yang elements into triads, forming eight attributes of substance symbolically represented by the Pa Kua or "Eight Diagrams," which are familiar to all students of Chinese curios. Mutual combinations of these give the 64 hexagrams which supply the scheme of the *I Ching*.

Below this in the scale of development are the five elements:—

Fire. (Violent chemical change in general)

Water, or the liquid state.

Wood, or the organic state.

Metal.

Earth, or the inert state.

Each of these may preponderate in Yin or Yang, so getting ten standards of reference. Antipathies and sympathies exist between these elements, and by attributing each of the five planets to an element and positing elemental influences to the lunar and solar divisions of the ecliptic, an astrological calculus was produced. The Sun and Moon were regarded as vehicles of Yang and Yin respectively, and to this day the colloquial name of the Sun is "T'ai Yang," "The Great Positive Influence."

This cosmological theory is supposed to serve as a key to all sciences. Divination, alchemy and medicine all rest on this basis, and all the adept needs to do is to be able to recognise the Yin and Yang and elemental character of the quantities or qualities which he is considering, and thereby learn their sympathy or antipathy and predict or produce results.

All the Hermetic literature of China is expressed in this terminology, which obscures to Western eyes any real meaning which may underly it. One cannot, however, but remark two things,—(1) the mediæval alchemist of Europe also referred to the sexual generation of matter, and (2) the modern chemist uses curiously similar language. Kelly, when boiling down the general traditions for the edification of Rudolphus II., says:—

"All genuine and judicious philosophers have traced back things to their first principles, that is to say, those comprehended in the threefold division of Nature. The generation of animals they have attributed to a mingling of the male and female in sexual union; that of vegetables to their own proper seed; while as the principle of minerals they have

assigned earth and viscous water." [*The Stone of the Philosophers*, see *The Alchemical Writings of Edward Kelly*, ed. by A. E. Waite, 1893, p 7.]

The modern chemist similarly divides his reagents into acid and alkali, and is accustomed to think of kations and anions as the ultimate causes of chemical change. The physicist goes further and regards matter as consisting of positively and negatively charged electrons whose reactions are responsible for almost everything that happens. The biologist has become convinced of the all pervading character of sexuality in organic life, and the mechanical philosopher adheres to a duality of nomenclature (Potential and Kinetic Energy, Action and Reaction, etc.)

With regard to the Elixir of Life: Chinese books are more copious on this subject than on that of transmutation, it being regarded, as in Europe, as the higher branch of Alchemy. It is narrated that many men have attained to the condition bestowed on one by Elixir, the body becoming spiritualised and highly "poietic". In actual fact this belief is the working basis of Taoism. The immortals or Hsien Jen ("Mountain Men") are regarded as playing a part like that of the Mahatmas. They can be invoked, and to the sufficiently persevering manifest themselves directly or indirectly for the spiritual benefit of the aspirant. The "Tan" or Elixir requires psychological stimulus to make it operative. Analogous teaching may be found in the European books.

The following extract will show the position:—"Among the arts of the alchemist is that of preparing an elixir, which may be used as a substitute for food. This is certainly true; yet the ability to enjoy abundance or endure hunger comes not from the elixir but from the fixed purpose of him who uses it. When a man has arrived at such a state of progress that to have and not to have are the same . . . it will be of no consequence whether he eat a hundred times a day or once in 100 days." [TAN TZU.]

The Taoists' ultimate text on the subject of immortality is contained in the *Tao-te-ching* ("Way-Virtue-Canon"), Ch. x. § i. "By conserving the natural and spiritual powers it is possible to escape dissolution." [LAOTZE: *The Simple Way*, a translation of the *Tao-Teh-King*, by Walter Gorn Old, 1905, p. 38.]

The Confucian Classics not infrequently refer to the possibilities which are open to the "Son of the Prince" (Chun-Tzu, "Superior Man"), particularly as the result of his development of "Sincerity" (Ch'eng="Perfect speech"), "Loyalty" (Chung="Centred Heart") and "Reciprocity" (Shu="Like-Heart"). He radiates a beneficent influence which, commencing at his own heart, eventually influences the whole universe for good, becoming, as it is said, "with

Heaven and Earth a Ternion." The alchemists have readily adopted this notion, and conjoined to it a more detailed belief in the gradual transformation of bodily substance into a quasi-spiritual matter. Martin [l.c.] quotes as follows from *Kao Shang Tzu*:—"The body is the dwelling place of life; the spirits are the essence of life; and the soul is the master of life. When the spirits are exhausted, the body becomes sick; when the soul is in repose, the spirits keep their place; and when the spirits are concentrated, the soul becomes indestructible. Those who seek the elixir must imitate the Yin and Yang and learn the harmony of numbers. They must govern the soul and unite their spirit. If the soul is a chariot, the spirits are its horses. When the soul and spirits are properly yoked together, you are immortal."

To revert to the practical question of transmutation, it is scarcely necessary to mention that the Chinese were the first to discover a number of famous chemical preparations, notably gunpowder. The principal experimentalist seems to have been Lu Tzu (mentioned above). A very noticeable feature in the practical references is the frequent mention of mercury and lead. These two are regarded as symbolical of Yang and Yin, the dragon and tiger. Particular importance is given to mercury. Probably the phenomenon of amalgamation led to this, but it is a very striking fact that mercury is just above gold in the periodic classification of the elements, so that if a degradation of the electronic constitution of the atom is practicable, gold would be the first product of mercury. Lead also occupies a higher place than either gold or mercury, so a similar transformation in the case of lead may be possible. Ramsay's transmutations, if they actually occurred, seem to have been very violent, the electronic stability being so disturbed that the atomic weights fell from very high values to very low ones. A more gradual change would produce gold as one of the descending steps. Another curious analogy lies in the fact that mercury and lead correspond in the astrological analogy (which the Chinese also employ), to the fastest and slowest of the visible planets, namely, Mercury and Saturn.

The Chinese agree with the European alchemists in regarding gold as the Perfect Substance. Modern research does not indicate any particular reason why it should be preferred to platinum or certain other metals, except that gold is the commonest of the metals which are found native. In this connection it is, perhaps, noteworthy that gold does not appear in the solar spectrum, which would seem to indicate that at the solar temperature its electronic constitution is unstable. It is not altogether inconceivable that temperatures approaching the solar may be produced artificially, and that in that way the gold-atom may be dissociated, or other atoms brought into such a condition that, when the temperature is reduced, gold atoms will be produced.

As in Europe, the science of Alchemy in China has been harmed on several occasions by kingly "patronage." There are several historical instances of monarchs who wasted time and energy which they could ill spare on unspiritual and vain efforts after apotheosis. On the other hand there are numerous instances of individuals who by a life of asceticism amongst retired places in the mountains are said to have attained the "Hsien Jen" condition, and are now objects of worship.

The above notes, which are somewhat disjointed, will show that there is a body of thought on the subject in China which is well worth attention.

REVIEWS.

Modern Inorganic Chemistry. By J. W. Mellor, D.Sc. 8 ins. $\times$ 5 $\frac{1}{4}$ ins., pp. xx + 871. London: Longmans, Green, and Co., 39, Paternoster Row, E.C. Price 7s. 6d.

DR. MELLOR, who, by the way, is a member of THE ALCHEMICAL SOCIETY, is already well known through his *Higher Mathematics for Students of Chemistry and Physics*, and *Chemical Statics and Dynamics*, as an able writer of chemical text-books. The present work possesses many distinctive merits. It has a literary quality about it very far removed from the dull formalism of most scientific text-books; and Dr. Mellor is continually throwing out suggestions which cannot do otherwise than cause students to think rather more deeply about the philosophical side of chemistry. Readers who value this aspect of the subject will find much to interest them in the book, especially in the introductory chapter, and in the chapters on "Combination by Weight," "The Kinetic Theory of Atoms and Molecules," and "The Classification of the Elements." Dr. Mellor does well to indicate that "matter" and "energy" are concepts which the practical chemist finds useful, rather than self-existent things in themselves, and in treating of the molecular theory of matter as a useful construction of the scientific imagination, rather than as a description of any self-existent material world. But this might with advantage have been somewhat emphasised, and certainly any statement to the effect that matter is indestructible should have been avoided. In the last chapter, which deals with Radioactivity, there is some mention of Alchemy. Dr. Mellor maintains an agnostic position with regard to Sir William Ramsay's alleged transmutations. His account of Radioactivity gives an excellent summary (suited to the needs of the elementary student) of what has been done in that field. Prof. Armstrong's "helide" hypothesis is mentioned on p. 836. It is interesting as a speculation, but the evidence is all against its truth.

EDITOR.

Matter and Some of its Dimensions. By William Kearney Carr. 6 $\frac{3}{4}$ ins. $\times$ 4 $\frac{1}{4}$ ins., pp. vi + 120. London: Harper and Brothers, 45, Albemarle Street, W. (New York: Franklin Square). Price, 2s. 6d. net in cloth, 3s. 6d. net in leather.

THIS is a volume in *Harper's Library of Living Thought*. It is an interesting little book, dealing with some highly speculative topics. The author does not always do justice to his views: his explanations of matters obscure to the lay mind are frequently too hurried, and he is apt to take for granted questions which must still be regarded as *sub judice* without putting his readers in possession of the pros and cons of the case (e.g., see his treatment of Sir William Ramsay's alleged transmutations). Nor is he always careful about the construction of his sentences.

The first two chapters deal with modern theories of matter. The reader will probably be confused by the use of the terms "weight," "inertia," "mass," "apparent mass." The last three really connote the same phenomenon, but should be carefully distinguished from the first. The author's conclusion, however, that matter is essentially the product of force, whose existence is determined by the continued operation of will, in short, that it is "a projection from a spiritual plane" will prove acceptable to many thinkers.

In later chapters he uses the concept of the "fourth dimension" to outline a philosophy of consciousness and spiritual experience. It is only when a man reaches "fourth dimensional consciousness," he argues, that the inconsistencies which appear from a "third dimensional" view of this life are resolved. To reach this state, one might say, is to have performed the *magnum opus*, spiritually understood. In the last chapter the author deals with "spiritual exaltation," and although his mysticism is of a somewhat neurotic type, few will disagree with his assertion "that life, which proceeds from the All-Sustained, is immortal—that a consciousness exists apart from that which the average man recognizes, that the shadow cast by the glorious light of the second ring is what we call the psychical body, and that matter is not dead but a living presence." The expression "second ring" refers to the author's hypothesis that there are five ethers. The evidence for this is not stated, and his assumption that the density of such ethers is not great compared with matter does not agree with the calculations of Sir Oliver Lodge.

Although, as I have indicated, the book seems to me by no means free from defects, it contains much that is interesting and suggestive and is well worth reading. Many of the author's speculations connect with the doctrines of the alchemists.

EDITOR.

The Occult Arts. An Examination of the Claims made for the Existence and Practice of Supernormal Powers, and an attempted Justification of some of them by the Conclusions of the Researches of Modern Science. By J. W. Frings. 7½ ins. × 4½ ins., pp. 237. London: William Rider and Son, Limited, Cathedral House, Paternoster Row, E.C. Price 2s. 6d. net.

THE sub-title well explains the nature of this interesting book. The "occult arts" dealt with are Alchemy, Astrology, Psychometry, Telepathy, Clairvoyance, Spiritism, Hypnotism, Geomancy, Palmistry, and Omens and Oracles. In every case Mr. Frings attempts to show that, regarded in the light of modern scientific theories of the nature of matter and energy, the claims made are not wholly invalid. How far he has always succeeded may, of course, be questioned. Mr. Frings has frequent occasion somewhat to modify the claims of Occultism, and his quasi-materialistic (materialistic, I mean, from the standpoint of epistemological idealism) and deterministic philosophy is open to criticism. The chapter which mainly concerns us, however, namely that on Alchemy, is in many ways excellent. Mr. Frings holds that the ancient alchemists recognised that there were two sides to their art—a spiritual and a physical;—that there was a transmutation of soul as well as of metal. His main concern, however, is with the latter aspect; and he well argues that the modern theory of the unity and essential homogeneity of the fundamental stuff of the Universe is at one with the alchemists' speculations and justifies a belief in the possibility of the transmutation of the so-called elements.

EDITOR.

The Symbolism of the Tarot. By P. D. Ouspensky. Translated by A. L. Pogossky. 8½ ins. by 5½ ins., pp. 65. St. Petersburg: The Trood Printing and Publishing Co., Kavalergardskaja, 40 (London: The Path Publishing Co., Oakley House, Bloomsbury Street, W.C.). Price (paper cover) 2s. 6d.

THE origin of the Tarot is a historical puzzle which still remains to be satisfactorily and completely solved. Is the Tarot to be regarded as merely a pack of cards invented to amuse a mad king, or is it, indeed, "the most ancient book in the world", embodying in symbolic form the essentials of that synthetic philosophy which gave rise to Alchemy, magic and astrology? Something may be said for this latter view, and the facts that there are four suits in the Tarot, corresponding to the four worlds of the Kabbalah and the four elements of the alchemist, whilst the trump-cards number twenty-two, which is the number of letters in the Hebrew

alphabet, are suggestive of a Kabalistic origin. On the other hand, of course, care must be taken not to read into the Tarot symbolic meanings which were not intended by its author or authors.

Mr. Ouspensky opens his volume with an interesting essay on symbolism in the Hermetic sciences, though his statement that "Symbolism in which the symbols have definite meaning is pseudo-symbolism" is, to say the least, of doubtful validity. The major portion of the book is concerned with imaginative and interpretive pen-pictures of the twenty-two Tarot trump-cards. These pen-pictures are by no means lacking in literary excellence, and contain many useful suggestions towards a philosophy of self-knowledge.

EDITOR.

PERIODICAL PUBLICATIONS—*Soc : Ros : in Anglia : Metropolitan College. Transactions*, 1912. Edited by the Secretary, W. John Songhurst. 8½ ins. × 5½ ins., pp. 61 + 3 plates. (Privately printed).

THIS contains reports of the meetings of the Metropolitan College of the English Rosicrucian Society, held during 1912, including the following papers read at these meetings: Dr. W. Wynn Westcott: "The Star Lore of the Bible"; C. G. Zander: "Man"; Sir John A. Cockburn: "The Tetragrammaton"; Herbert Burrows: "Reincarnation"; and there is an essay on the last-named subject by A. Cadbury Jones. Dr. Westcott's paper is particularly interesting and shows signs of considerable research. Mr. Burrows' statement that reincarnation "formed part of the system of Swedenborg" is erroneous and indicates that the writer is not well acquainted with the system of the Swedish philosopher. The volume has, as frontispiece, an excellent reproduction of a portrait of Robert Fludd, but no particulars as to source, etc., are given.

The Path for July contained an exceedingly interesting and suggestive paper by August Kirschmann, to which reference would have been made in an earlier issue of the JOURNAL had the exigencies of space allowed. The paper is entitled "Transmutation of the Elements and the Interior of the Earth," and is reprinted from *The Journal of the Royal Astronomical Society of Canada* (1907, pp. 337 et seq.). The author argues that we have as yet only studied the properties of the so-called elements over certain ranges of temperature and pressure; and he gives good reasons for supposing that under such extreme conditions of temperature and pressure as must obtain near the earth's centre, the chemical elements

as such cannot exist, but only a protylic substance made up of free electrons. He asks us to imagine what would happen if an element were heated above its critical temperature, the resulting gas compressed until it occupied a volume smaller than that which it would do in the liquid or solid state, and then allowed to cool off without the pressure being reduced. Since the product would have a different specific gravity from that of the original element, we can only suppose that it would be a different element. The experiment, though difficult, is not impossible, and ought certainly to be attempted. The author's theory is that different elements have resulted from the protylic substance of which the earth was once entirely composed, by its cooling off at the surface under different pressures. He concludes his paper with some highly interesting philosophical considerations, concerning the necessity of defining all scientific terms psychologically, i.e., in terms of the ultimate elements of consciousness, and he shows, further, the application to the present problem of a thesis he has elsewhere established, to the effect that if any manifoldness not consisting of absolutely disparate elements is made up of more than two elements, then the number of elements constituting it must be infinite. The Editor of *The Path* is to be thanked for having made so interesting a paper more accessible to English readers.

EDITOR.

THE JOURNAL OF THE ALCHEMICAL SOCIETY

EDITED BY H. STANLEY REDGROVE, B.Sc. (LOND.), F.C.S.

VOL. II., PART 9.

JANUARY, 1914.

REPORT OF NINTH GENERAL MEETING.

THE ninth General Meeting of THE ALCHEMICAL SOCIETY was held at 8.15 p.m., on Friday, January 9th., at The International Club, Regent Street, S.W. The chair was occupied by the Acting President, Mr. H. Stanley Redgrove, B.Sc., F.C.S.

The Honorary Secretary announced the names of new members.

A paper was read by Mr. Arthur Edward Waite on "Kabalistic Alchemy", which was followed by a discussion. (The paper and an abstract of the discussion are printed in the present number of the JOURNAL.)

A vote of thanks was passed to Mr. Waite for his paper.

KABALISTIC ALCHEMY.

By ARTHUR EDWARD WAITE.

It is my intention on the present occasion to enter a very curious and unfrequented byway of Hermetic research, but it is one which repays visitation, at least in a certain sense, and though I feel that within the limits of a single paper, I can only touch very lightly on the main part of my subject, we may be brought to another Gate of Alchemy, beyond which the field of spiritual aspects unfolds a wide horizon. It is not an easy byway to travel and, therefore, although I shall assume no familiarity on the part of my hearers, I must ask for their particular attention. If afterwards, in their own studies, they will seek to pass through the Gate, they may find that the opening of the eyes in Alchemy is like the opening of the eyes which befell the disciples at Emmaus, so that they knew Him Who was their Master. At the same time, all that is understood as Alchemy—its concepts, phraseology and remains in literature—will be left behind as they proceed.

Among the writings of Zosimus, the Panopolite, which formed part of the great collection of works by the Byzantine alchemists, there is a tract entitled *The True Book of Sophe the Egyptian*, which appears to regard Lead as the First Matter of the physical work and Copper as the Tingeing Agent. In a word, the practical part has nothing to suggest that it conceals spiritual operations under terms borrowed from material things, even if the metals mentioned have to be philosophically understood; but the little text has a preamble of one paragraph concerning the Divine Lord of

the Hebrews and the Powers of Sabaoth. This creates a noteworthy distinction between the science and wisdom of the Egyptians and that of the Jews. Both have come down from the far past; neither investigates material or corruptible bodies; the operation of each is sustained by prayer and Divine Grace; but that of the Hebrews is rooted more solidly in Divine Justice. There follows a passage which I have quoted already elsewhere [*The Doctrine and Literature of the Kabbalah*, 1902, pp. 451, 452.] and which accounts for the recurring comparison between the work of Alchemy and that of God in creation. "The symbol of chemistry is drawn from creation (in the eyes of its adepts), who save and purify the divine soul enchained in the elements and, more than all, who separate the divine spirit entangled with the flesh." This is sufficiently remarkable as a definition of the work of adeptship, but there is also presumably a key to the sense of certain terminology used subsequently in the text. "As there is a sun, the flower of fire, a celestial sun, the right eye of the world, so Copper, if it become flower (that is, if it assume the colour of gold) by purification, becomes a terrestrial sun, which is king on earth, as the sun is king in heaven." (M. BERTHELOT: *Collection des anciens Alchimistes Grecs*, 1887, 1888. Greek text, pp. 213, 214, French translation, pp. 206-208.)

My object in giving these citations is not to show that it is easy—as it is certainly—to find mystical aspects of Alchemy in the Greek remains, but to introduce my particular subject by proof positive that thus early in the records, we find the people of Israel accredited with science and wisdom like that of Solomon, namely, greater than the Egyptians, but—*ex hypothesi*—like theirs a science and wisdom of Alchemy. We may leave it, at least for the moment, as an open question whether the wisdom and science were purely mystical and transcendent or whether there was also what is called a practical side in the sense of physics. That "flower of fire," the spiritual sun of the adepts, is obviously a concept drawn from the material luminary; and the flower of earth, denominated by later Alchemy "the Son of the Sun," the divine manifestation below of that which is Divine in the universe, was probably unfolded by processes regarded, in the Hermetic dream, as reproducible analogically in the laboratory of the adept, when he was at work in the metallic kingdom.

Here, then, and in any case, is our first intimation concerning the possible existence of a Kabalistic Alchemy at an early period of the Christian centuries. In the opinion of M. Berthelot, the tract—but more correctly there are two tracts—which Zosimus refers to Sophe, or Cheops, contains elements of considerable antiquity, belonging to the period of the oldest texts passing under the name of Hermes. It is not a very clear intimation, being confined to the statement of an alleged fact, from which nothing appears to follow.

There is, however, a much longer treatise—by way of commentary on Zosimus and some other philosophers—referred by tradition to Olympiodorus, an Alexandrian philosopher, and possibly the preceptor of Proclus. In this it is affirmed that Democritus and the rest of the adepts, belonging to anterior times, concealed their science by the use of common and inappropriate terms, so that it might be reserved to the Egyptian kings and that they, on their own part, might be enabled to maintain their rank among the prophets. The Jews notwithstanding attained knowledge of the practice and expounded it in clandestine books. [*Ibid.* Greek text, p. 90. Translation, p. 98.] It is said further by Zosimus himself that the Jews, having been initiated, transmitted that with which they had been entrusted, namely, suitable processes in the mystery of natural tinctures. [*Ibid.* Greek text, pp. 242, 243. Translation, pp. 233, 234.] So also he went in quest of a certain "instrument" but could find nothing concerning it till he had recourse to Jewish books. [*Ibid.* Greek text, p. 138. Translation, p. 140.] Finally, under the pretext of describing furnaces and other apparatus, the same Zosimus gives an account of the vocation, habits and aims of philosophers which incorporates a very curious mysticism concerning man in his original perfection, the fall of man, his redemption and restoration to Paradise. All this he claims to have drawn out of Jewry, and it is not a little in the likeness of what we now understand as Kabbalism, but permeated by Gnostic and Christian elements. [*Ibid.* Greek text, pp. 229-233. Translation, pp. 222-226.]

Now, it is difficult to suppose that these testimonies do not establish the fact that not only was the Secret Doctrine in Israel beginning to exceed the measures of Talmudic literature, but that there were at least a few alchemical treatises, presumably written in Hebrew, outside those of Maria the Jewess, to whom the Byzantine alchemists refer so frequently. Zosimus, it should be remembered, belongs to the third century of the Christian era and pseudo-Democritus is referred by Berthelot to the very beginning of Christianity. The Hebrew literature is, however, lost—unless, after that manner which is dear to the heart of occultists, we prefer to say that it is in concealment.

Kabalistic Alchemy is represented at this day by a single tract, or rather by so much of it as can be found in a piecemeal translation into Latin of the late seventeenth century. The original has disappeared, and it is indeterminable whether it was written in Hebrew or Aramaic, though one of the modern editors has decided in favour of the latter, but without assigning his reasons. The text in question is called *ASH MEZAREPH*, the "refiner's fire" of Malachi ii, 3, according to the Authorised Version, but translated *ignis conflans* in the Vulgate, and hence the alchemical work is called in the English rendering of 1714, *Purifying Fire*. It was put into Latin, as I have said, by the pains of Baron

Knorr von Rosenroth and is incorporated into that great Lexicon or Apparatus which forms the first volume of his *Kabbala Denudata*. The incorporation has no pretence to completeness, which was not to be expected, having regard to the purpose in view; and the extracts are described by Rosenroth on his first title-page as forming a *Compendium Libri Cabbalistico-Chymici, Ash-Mezareph dicti, de Lapide Philosophico*, etc. When the unknown student who called himself "A Lover of Philalethes," made the English translation at the period I have mentioned, he collected all the excerpts scattered through the Kabalistic dictionary and reduced them into logical order, taking considerable pains. His work has been reprinted, with certain revisions and some useful notes, under the editorship of Dr. Wynn Westcott [*Collectanea Hermetica*, Vol. IV., 1894.]. What proportion the collated text, as we know it, bears to the original seems likely to remain as it now is, a matter of speculation, though a preface to the latest edition mentions that it is "still extant as a separate treatise." About this there must be some misapprehension, unless it is in that state of hiddenness to which I have alluded. In any case it does not seem to have been available for the purpose of the edition in question.

In the absence of the original we are as much in the dark as to its date as we are about the comparatively unimportant question of its authorship. It is transparently that which it claims to be, a genuine remnant of Kabalistic Alchemy. At the same time, it belongs to late Kabalism, as it postulates the existence of ten *Sephiroth* or Numerations in each of the Kabalistic Worlds, and this is not countenanced by the *Zohar*. There is one reference to Geber, the Arabian philosopher, but, at least to my own mind, it suggests an acquaintance with the Latin author who assumed that name. The *Zohars* are rather numerous in Hebrew and there is mention of one of them which treats of medicine, but this I have failed to identify and believe that it may be a confused reference to the anonymous *Zohar Al Harrephua*, or *Splendor super Medicinam*, which was printed at Venice in 1497. Could we rest certain that the "Lover of Philalethes" had made all his extracts from Rosenroth correctly, the *terminus ad quem* in respect of antiquity might be settled out of hand, for *The Book of Purifying Fire*, in its English form, quotes *The Garden of Pomegranates*, which is the work of Moses of Cordova, and this Rabbinical Master is either of the fourteenth or sixteenth century—probably of the later date. On referring, however, to the Latin text of Rosenroth, it seems certain that a mistake has been made and that a short passage referable to the German compiler has been credited to the alchemical text. In this case, four lines at the head of Chapter III. call to be deleted. I should imagine, in conclusion as to the point of date, that we shall be safe in assigning the *Ash Mezareph* to the sixteenth cen-

tury, or subsequently to the appearance of the *Sepher Ha Zohar* in its first printed forms at Cremona and Mantua, between 1558 and 1560. There is no doubt in my own mind that it was the publication of these editions which gave an impetus to the study of Kabalism, both in Christendom and Jewry; for, although what I have called late Kabalism, largely an extension of Zoharic doctrine and its interpretation, had already begun, the works by which it is best known are of posterior date.

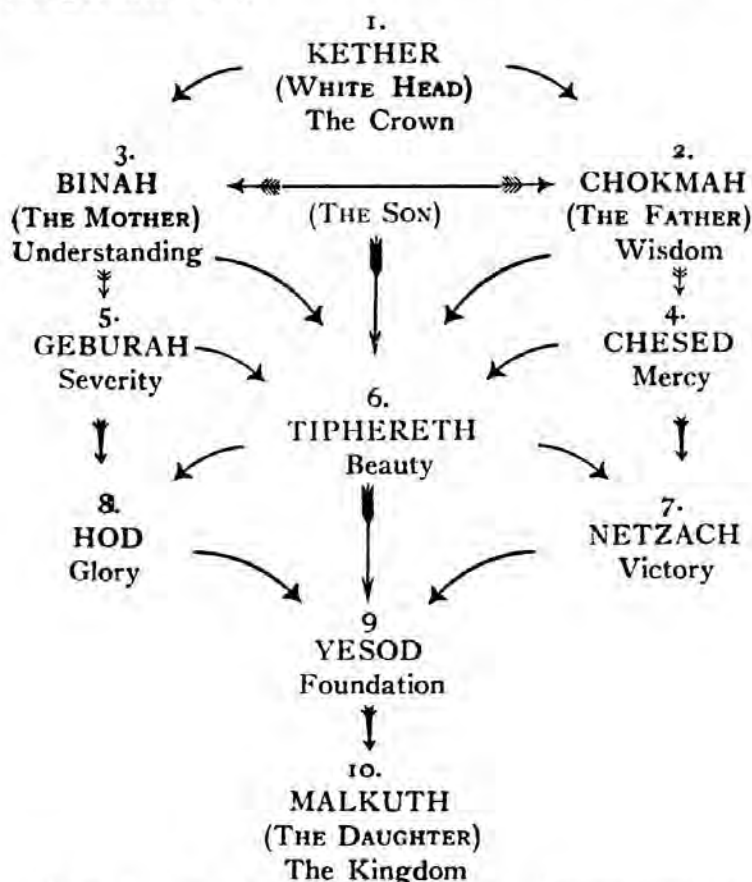


FIG: 1. THE SEPHIROTH AND THEIR SIGNIFICATIONS.

Having now finished with the preliminary and bibliographical part of my subject, I will take up the question as to the way in which the little Kabalistic treatise on Alchemy should be approached if we are to find anything to our purpose in its pages. In so far as it embodies Kabalistic elements regarded under a Hermetic light, we must have recourse to the *Zohar* in its study. Following *Sepher Yetzirah*, or *The Book of Formation*, this great monument of Hebrew theosophy postulates ten *Sephiroth* or Numerations extended through Four Worlds, beginning with pure Deity and ending with the manifest creation. There is neither place nor occa-

sion to speak of them in detail here. In a broad sense the gulf between the Divine and the world of earthly elements was bridged by means of the *Sephiroth*, and hence they have been called emanations, but the Zoharic system is not, strictly speaking, emanationist, or at least it includes counter aspects which modify or perhaps cancel some apparent leanings in that direction. The *Sephiroth* are tabulated as follows : KETHER = The Crown; CHOKMAH = Wisdom; BINAH = Understanding; CHESED = Mercy; GEBURAH = Severity; TIPHERETH = Beauty; NETZACH = Victory; HOD = Glory; YESOD = The Foundation; MAL-

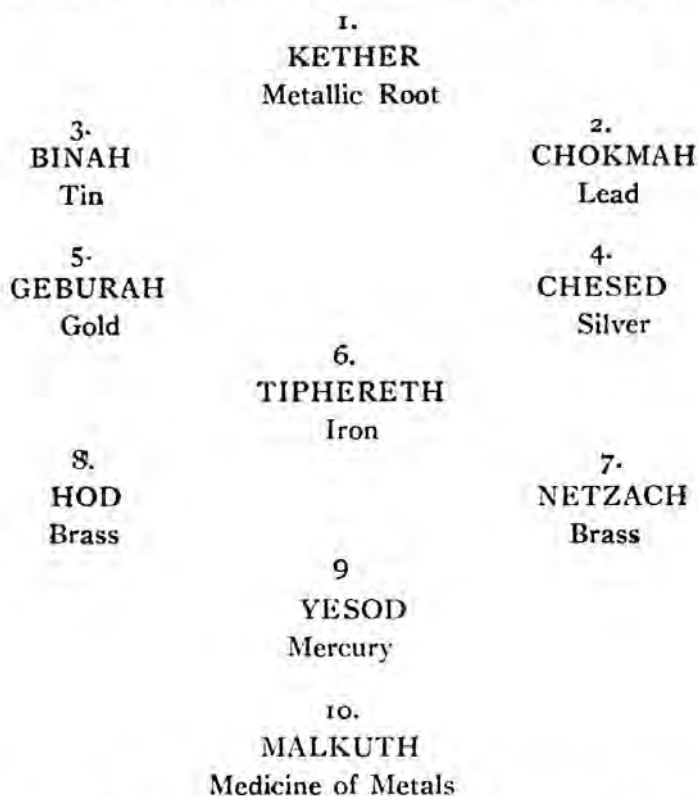


FIG : 2. THE SEPHIROTH AND METALS : FIRST SCHEME OF ALLOCATIONS.

KUTH = The Kingdom. These titles are conventional, for the most part, and will be familiar to many, but have been enumerated, this notwithstanding, for the purpose of the subject in hand. In ancient Kabalism the first three form the *habitaculum* of Deity, the essence of which is triadic. This is the world of ATZILUTH, *fons Deitatis*, the true region of emanation, but it is that of Divine Persons, proceeding one from another, though having very slight correspondence with the Christian Trinity. The next three *Sephiroth* constitute the world of BRIAH, or of creation. From one point of view,

this world is archetypal, the pattern or idea in Divine Mind which became manifest afterwards; from another it is the realm of highest created intelligence, understood broadly as archangelic. The world of YETZIRAH or Formation comprises three further *Sephiroth*. From one point of view, the universe was formed therein, but it was not externalised; from another it is the angelic world. ASSIAH, the factual, manifest, material world is constituted by the tenth *Sephira*, MALKUTH. This is one Sephirotic system, but there is another of high importance which postulates BRIA' and YETZIRAH as the body of the Divine Son and ASSIAH or MALKUTH as the Daughter

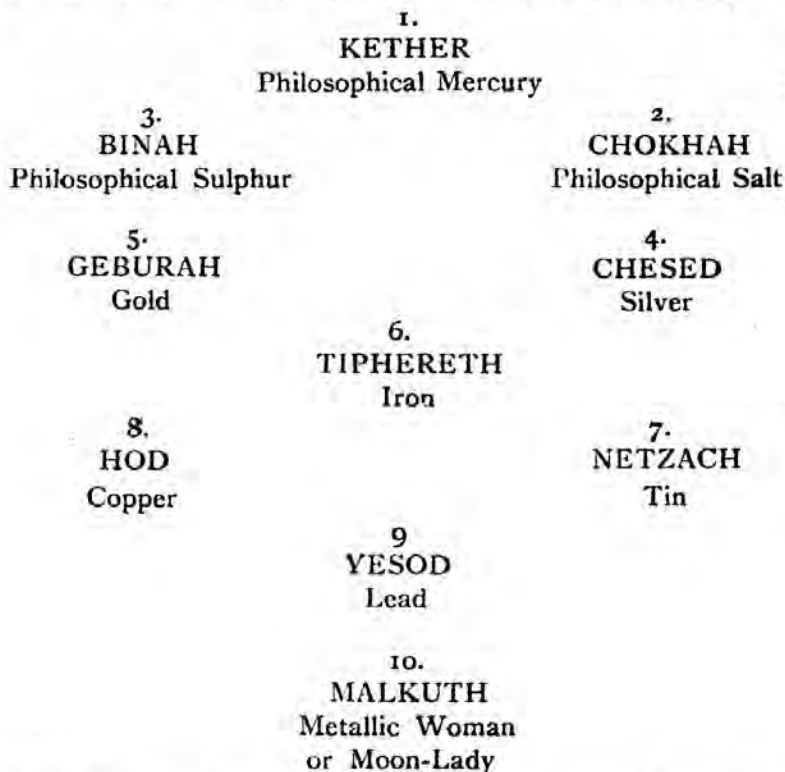


FIG: 3. THE SEPHIROTH AND METALS: SECOND SYSTEM OF ALLOCATIONS.

of God. Between them they contain all created intelligence, from Seraphim to human souls, and the Daughter is more especially the Community of Israel, the synthesis of elect souls. So far concerning the *Zohar*, but the masters of rabbinical theosophy who discourse therein knew nothing of Alchemy.

Later Kabalism had, however, yet another classification, as I have intimated already, and this repeated the decade of *Sephiroth* through each of the Four Worlds. Now, it was possible obviously to say things about KETHER in ASSIAH which were not possible about KETHER in ATZILUTH, and so

of the rest. But the author of *Ash Mezareph* goes further even than this and affirms that the *Sephiroth* are found, from first to last, in the Mineral Kingdom; and on this basis he produces two further classifications, as they now follow. (1) KETHER = The Metallic Root, from which all metals originate, as the remaining *Sephiroth* from KETHER in the worlds above. (2) CHOKMAH = Lead, which is the first-born of the Metallic Root and is called Father in relation to the rest of the metals. (3) BINAH = Tin, being of old evolution in the series, as shown by its age. (4) CHESED = Silver, and the reason of this allocation is said to be the metal's colour and use. (5) GEBURAH = Gold, because in the late Kabalistic Diagram called the Tree of Life, GEBURAH is on the left or northern side, and according to *Job*, xxxvii, 22, gold "cometh from the North." With this rendering the Latin Vulgate agrees, but our Authorised version substitutes "fair weather" for the precious metal. (6) TIPHERETH = Iron, because it is said to be like a man of war, presumably having the kind of beauty which belongs to the array of battle. (7 and 8) NETZACH and HOD = Brass, because this is the hermaphrodite of metals and because the two pillars of Solomon's Temple were made thereof. (9) YESOD = Mercury, because it is the foundation of life and quicksilver is a living water, which is the basis not only of metallic art, but of Nature herself. (10) MALKUTH = the Medicine of Metals, because they are metamorphosed thereby into gold and silver, under the auspices of Judgment = GEBURAH = Gold, and of Mercy = CHESED = Silver, on the right and left sides of the Tree.

The alternative classification is equally acceptable for the reason that "all systems tend to the one truth." According to this, the first three or Supernal *Sephiroth* represent the three alchemical Principles, thus KETHER = Philosophical Mercury; CHOKMAH = philosophical Salt; BINAH = philosophical Sulphur; CHESED = Silver; GEBURAH = Gold; TIPHERETH = Iron; NETZACH = Tin; HOD = Copper; YESOD = Lead; and MALKUTH = The Metallic Woman, the *Luna* of the Wise, the Water of Gold and that mysterious field "into which the seeds of secret minerals ought to be cast." I should add that, his liberality notwithstanding, the author of *Ash Mezareph* prefers the first classification, as it is that which he uses chiefly in the text.

The next question before us is that which we can learn from our text about metals and their allocations, the Three Principles, the Medicine and the Water of the Wise. As a Kabalist, the author was quite naturally concerned with the tabulation of all important references to the seven metals found in the Old Testament. On these he allegorised, computed the sum of the numbers produced by the consonants of the names, and sought further light by comparison with other names and words from which the same numbers could be derived. Herein he followed certain familiar methods—I mean, familiar among Kabalists—but

if I were to enter into this part of the subject and deal adequately therewith I should fill a volume. If anyone should be disposed to pursue it, I can promise him much that is curious, a few analogies which are striking, but he will not find that *latens Deitas* lying, by the hypothesis, behind the processes and experience of mystical Alchemy, nor yet the secret of metallic transmutation. In a word, it is not a research that I can recommend specifically to the *sodales* of THE ALCHEMICAL SOCIETY.

It is possible, no doubt, to work so long at the decade of *Sephiroth* and dwell upon it so steadfastly that you will see the one thing everywhere. Had it not been for the saving virtues of the sovereign reason, I might have been in such case myself, considering my years of immersion in Kabbalism, its schools and its literature. The "adept anonymous and lover of learning" who discoursed of Purifying Fire must have taken a high degree in this kind of persuasion, for he discovers the decade in Gold, which has ten orders or degrees, all devised from the Scriptures and beginning with the KETHER of the precious metal, being that "head of fine Gold" celebrated in *The Song of Solomon*, v, 11, and ending with the "Gold of Ophir" mentioned in *Job*, xxxii, 25. Silver has also its decade, and if anyone is in search of its KETHER, he will find it in *Exodus*, xxxviii, 17, where the chapiters of the pillars in the Court of the Tabernacle are said to be overlaid with this metal. But the MALKUTH of Silver is that Silver "seven times purified" which is compared to the Word of the Lord in *Psalms*, xii, 6. The *Sephiroth* of Lead are in a state of occultation, which means literally that the number of references to this metal in Holy Writ falls short of the decade, so that it has to be completed by splitting the reference in *Zechariah*, v, 7, 8 into two parts. Lead in alchemical doctrine is the Primordial Salt of the Wise. Now, as it is impossible to discover more than five references to Tin in all the Law and the Prophets, the author is in a position to elicit a purely Hebraistic reason for the inconsequence of this metal so far as the Work of Wisdom is concerned, and he says therefore that it "remains separate from the Universal Medicine." Moreover, vileness and tenuity are its conspicuous vices and hence—in addition to the obvious Scriptural reason already intimated—it is not suggested that Tin contains a Sephirotic decade. On the other hand, this is found easily in Brass, which term there is reason to believe signifies Copper; but silence reigns concerning the decade in respect of Mercury or Quicksilver. The reason seems to be that this metal was unknown in ancient Jewry, though our Hermetic scholiast pretends that its mystery lies hidden in the name of Mehetabel, who was the wife of a king of Edom. [*Genesis*, xxxvi, 29.]. I do not know why the decade of Iron is omitted from *Ash Mezareph*, unless it be that this kind of invention maketh even the heart of the artist grow sick within him; but we learn for our consolation

instead that Iron is the Male and Bridegroom, "without whom the Virgin is not impregnated", which Virgin would seem to be the philosophical *Luna*, or *Medecine of Metals*, already mentioned. Turning for one moment to the second tabulation and in particular to the three alchemical Principles, no canon of distinction seems to be offered between *Mercurius Philosophorum* and mineral Quicksilver; on Philosophical Sulphur I find nothing that lends itself to quotation; while the discourse on the Salt of the Wise seems to be one of the lost sections.

So far it will appear that the intimations of *Ash Mezareph* are remote from the practical side of things in Physical Alchemy; they are an exaggeration in part of Zoharic principles of commentary, interpretation and so forth, while for the rest they draw upon the artificial and arbitrary devices of what is called the practical Kabbalah. There is of course no reason to question that its domain is that of metals, literally understood, or at least that it begins therein. What it presents, however, in rough and broad lines is an hypothesis of evolution or generation from a Metallic Root, operating in several directions with various results, according to the places of the *Sephiroth* on the Tree of Life. As such, I consider that the first tabulation is almost manifestly incorrect, but if the second should be preferred to the first, it is not therefore unimpeachable. I have met with other attributions in more secret Kabbalistic systems and these are still better, though not perhaps perfect; but they do not concern us now. To the hypothesis there is a process added for the production of the White and Red Tinctures. This rests on the authority of Rabbi Mordecai, but I do not find an alchemist of this name in the great bibliography of Bartolucci. [*Bibliotheca Magna Rabbinica*, 4 vols., folio, Rome, 1675-93.]

Hereof is Kabbalistic Alchemy, as it stands in the text, and I should think that scientific criticism would be disposed to turn and rend me, did I suggest that it should be taken seriously, or even as a contribution of any discernible moment to the most cryptic side of the literature. There is, however, another point of view; and to approach this we must set aside the wonderful but arbitrary verbal gymnastics of *Gematria*, *Temura* and *Notaricon*, in virtue of which Kabbalism of a certain sort deduced anything that it wanted from the words of Scripture by the transposition of Hebrew consonants, the substitution of one for another and the computation of their numerical values. There are a few people in Israel who believe in these kinds of methods even at this day, but they are the antithesis of philosophical Kabbalism. When the *Zohar* draws from the fountains of the higher mind, it knows nothing of such devices; it knows and cares very little concerning them in moments of pure fantasy. It is arbitrary enough, very often and too often, after its own manner, but it has other tricks than these. The ill-equipped occultism of the late nineteenth century, when it betook itself to Kabbalism

in ignorance of the real authorities, thought that there were great mysteries in all these follies of artifice.

We must set aside the putative process of *The Book of Purifying Fire*, and then there will remain the attribution of metals and their suppositious planets to certain *Sephiroth* in the Tree of Life, together with that of alchemical Principles and so forth to the *Sephiroth* which remain over. Now, I have followed the quest of the meaning which lies behind these ascriptions through no common paths of research, and I have found some things that belong to our subject as members of an Alchemical Society which is concerned with the mystical side of Hermetic literature as much as with the physical. If metallic transmutation is possible, then in the hope that it may become actual, we know enough to be certain that the experiment has to be approached from the direction of modern scientific chemistry and not from that of the old alchemical texts. There are seven planets of the ancients as there were seven metals; the names given to the planets in the Western world have become in the course of time almost interchangeable with those of the metals. At least this is certainly the case so far as Alchemy is concerned. The history of the interlinking is obscure and it is beyond my present horizon. I may say that it is not explicable by analogies of colour, though there are certain thin analogies, as, for example, between the Sun and Gold. It is not entirely explicable by an hypothesis of astrological influence, as there is nothing on the surface of this to connect Saturn with Lead. It is a western doctrine of correspondences, and as such, has been extended to the Signs themselves; but this does not now concern us. The Hebrew names of the planets are not only entirely distinct from those of the metals, so far as the metals were known to ancient Jewry, but they were never interchanged with these. The seven planets were: *Sabbathai*, *Tsedeq*, *Maadim*, *Hamah*, *Nogah*, *Cokhab*, *Lebanah*; that is to say, Saturn, Jupiter, Mars, Sun, Venus, Mercury, Moon. This is on the authority of the *Zohar*, Part III., fol. 287a. The seven metals are: Lead = *Ophereth*; Tin = *Bedel*; Iron = *Barzel*; Gold = *Zahad*; Copper = *Nehuseth*; which except in *Ezra*, viii, 27, is always translated "Brass" in the Authorised Version; Mercury = *Aspirika*; Silver = *Cheseeph*. The connection with which I am dealing between the metals and *Sephiroth* cannot be said to exist in the *Zohar*, though we are told in one place that Silver = *CHESED* = Mercy, and Gold = *GEURAH* = Severity, or alternatively, Gold = *BINAH* = Understanding, while Brass is the union between Severity and Mercy, which might be held to answer by way of reflection to *NETZACH* = Victory and *HOD* = Glory. [*Zohar*, Part II, fol. 138b.] So also Iron is once referred to *MALKUTH* and once to *TIPHERETH*. I must add the great text knows little and next to nothing of a connection between the planets and *Sephiroth*, be-

cause the planets belong to ASSIAH. The distinctive name of the planetary world is "*Galgooleem*," which is here taken as a synonym of ASSIAH, and, as we have seen, this world corresponds to MALKUTH, the repetition of the Sephirotic decade in each world being a later invention. Our particular author dwells, however, on a mystical interconnection between all the worlds and between the kingdom of metals and the kingdom of heaven. "The mysteries of this wisdom differ not from the superior mysteries of the Kabbalah. For the same consideration obtains respecting the predicaments in holiness as respecting those of the impure region. The *Sephiroth* which are in ATZILUTH are the same as those in ASSIAH." It is added that "their excellency is always greater on the spiritual plane." It follows from this that the author of *Purifying Fire* recognises that there is a correspondence, not, however, developed, between the metals hidden in the earth and the planets which move in heaven: herein he is at one with alchemical literature, taken as a whole, and, I presume, with certain aspects of astrology. He recognises further that there is a higher, more momentous, correspondence between the metals and *Sephiroth*, extending through all the worlds recognised by Kabbalism: herein he is particular to himself, and it is at this point that his thesis begins to emerge, if anywhere, into a mystical light.

The *Sephiroth* in the *Zohar* are a ladder of sanctity by which man can be united to the Holy One, and the allocation of certain *Sephiroth* to certain metals, though comprehensible in a text belonging to Hermetic literature, which is committed to the Doctrine of Correspondences, is a stretching of that doctrine to breaking point, unless the metals themselves are spiritualised. As much must be said, in my opinion, concerning the planets themselves; and I do not suppose that, on either side, the alternatives can be regarded as lying within the field of legitimate or tolerable discussion. Now, in orthodox Kabbalism it cannot be said that there is any trace of symbolism concerning the Metallic Kingdom, save and except in so far as the Sephirotic correspondences which I have mentioned may imply—as I hold that they do—not only a marriage in symbolism, but an uplifting into a spiritual order. The question of planetary allocations is in much the same case. The sun, according to the *Zohar*, is in correspondence with TIPHERETH and the moon with MALKUTH, and these luminaries are spiritualised after the same manner as will be found in Holy Scripture. For example, the light which rules the day is the Sun of Justice and of Righteousness that "shall arise with healing in its wings," according to *Malachi* iv, 2. I must not make myself responsible for the content of a colossal text like the *Zohar* on the face-value of memory, but I do not believe that there are any other express allocations of planets to *Sephiroth* found therein. Yet it would be difficult to affirm that much which passed into expression and extension at a later period is not by implication in the *Zohar*,

and at the dawn of the sixteenth century, or some fifty years before the text in question was printed, the following notable attributions are registered by Cornelius Agrippa in his *Three Books of Occult Philosophy*, which was in the hands of Abbot Trithemius in 1510, as appears by his letter prefixed to this work. The planet Saturn is referable to BINAH, the third *Sephira*; Jupiter to CHESED; Mars to GEBURAH; the Sun to TIPHERETH; Venus to NETZACH; Mercury to HOD; and the Moon to YESOD [*Op. cit.*, Book III, Ch. 10.]. These ascriptions differ from both tabulations of *Ash Mezareph*, but the author of this work testifies that "if anyone hath placed those things in another order, I shall not contend with him, inasmuch as all systems tend to the one truth." Cornelius Agrippa invented nothing on his own part, being only a diligent compiler, and it follows that on this subject he drew from early Kabalists, but I have no means of identifying them. I regard his scheme as preferable to those of later date, and it assuredly implies that the *Sephiroth* connected with the planets had also an influence on the metals which correspond to these, a correspondence which he develops fully elsewhere in his work. [*Ibid.* Book I. Chapters 23 to 29.]

Let us take, however, the second classification of *Ash Mezareph* and see what it implies in the light of Zoharic theosophy.

We have seen that the three alchemical Principles are in the place of the supernal *Sephiroth*, which is the world of Deity. Philosophical Mercury is in analogy with the Metallic Root of the alternative list and belongs to KETHER, wherein is the Great White Head of the Zoharic Holy Assemblies, being That which resulted from the first movement of the Unknowable God towards the state of being declared and manifest. Out of KETHER, by a simultaneous development, there proceeded the co-equal *Sephiroth* which are called CHOKMAH and BINAH, being the Divine Father and Mother of Kabalistic theosophy, both implied in KETHER and not in separation therefrom. In *The Book of Purifying Fire* these correspond to Philosophical Salt and Sulphur, which are not in separation from Mercury, for the Principles are a trinity in unity, like the three *Sephiroth* of ATZILUTH. But the triad of these Supernals produces a second triad, being CHESED, GEBURAH and TIPHERETH, or the world of highest created intelligence. In Alchemy they generate Silver, Gold and Iron, or the perfect metals and what, I suppose, might be called alchemically the first degeneration from these. But Philosophical Iron, according to *Ash Mezareph*, is the Sun of the Wise, the Male or Bridegroom, as we have seen, in correspondence with the Divine Son, begotten by the Divine Father and Mother. A third triad follows, which is another world of created intelligence, namely, NETZACH, HOD and YESOD, or metallically Tin, Copper, and Lead. There is no philosophical Tin, but Copper has an influence from Gold, as HOD draws from GEBURAH and philosophical Lead, according to our text, has

the whole system of the universe concealed therein, because YESOD represents generation and the Kabalistic organs of sanctity by which this is operated. Hence Lead is called also the Father.

Finally, there is the fourth world of ASSIAH or MALKUTH, the region of manifest things, in correspondence with the Metallic Woman, Moon-Lady, and Medicine for the White, "so-called because she hath received a whitening splendour from the sun." There is only one way to explain this allocation, and it is by recourse to theosophical Kabbalism on its highest mystical side. The Sun is that Divine Luminary which is termed Jehovah in the *Zohar*, but also by other Sacred Names, and the Moon-Lady is Shekinah, connected in her manifestation with MALKUTH.

We are now in a position to understand something of the entire scheme. The outward development of transcendental *Sephiroth* produced, *ex hypothesi*, a perfect manifest order, which, according to tradition, subsequently fell; but the Divine Presence of Shekinah is still on this earth of ours and the return journey by which all things are consummated in God is by and in union with her. She is the leader of the human into the beatific state of ATZILUTH, and the nature of the travelling is adumbrated by the qualities ascribed in the *Zohar* to the *Sephiroth* above MALKUTH, up to and including *Chesed*. There is no opportunity here to specify these qualities, but they can be ascertained by a collation of Kabalistic texts and more readily by integration in those orders which are inheritors at this day of the old secret traditions.

On the alchemical side it is testified by the entire literature that the intention of Nature was always to make Gold or by inference at least Silver, as an alternative perfect metal; but owing to effective hindrances the so-called inferior metals have been produced instead. In the *Malkuth* of the metallic Kingdom, there is, however, that which *Ash Mezareph* denominates a certain "field," a place of "whitening splendour," a realm of medicine and of healing, wherein is the Moon-Lady, who is also the field. Herein lies the restoration of metals, so that they shall enter into the perfect state, which is to be understood as the free operation within them of the Three Principles in the Supernals of the World of Metals. This analogy constitutes what I termed at the beginning that other Gate of Alchemy which, if opened by the student, may lead into strange places, even to the Heart of the Master.

In conclusion, I think that the little tract on *Purifying Fire* deals, as I have said, with literal and material metals, but is written in the light of its statement that the greater excellence is always on the spiritual plane. So far as it puts forward physical processes seriously, it is the dream of a fantasist, who held that a described order on the spiritual plane is repeatable of necessity on the material. I would dissuade any one from supposing that the tract contains

cryptic chemical science of an advanced kind; but if another should pretend that its alchemical terminology is a pretext to direct seekers towards the true object of research, I would scarcely contend with him, for I do not know certainly.

ABSTRACT OF DISCUSSION.

MISS CLARISSA MILES said that she would be glad if Mr. Waite would supply some information concerning the Kabalah and the texts containing it for her benefit and for the benefit of other members who had not studied Kabalism. She wanted, in particular, to know in what language and at what date the books of the Kabalah were written, and whether there was any evidence that the alchemists were acquainted therewith. She would also be glad if Mr. Waite would explain further the expression "Moon-Lady" which he had used in his paper.

DR. ELIZABETH SEVERN asked to what extent, in Mr. Waite's opinion, did the alchemical processes of Kabalism offer points of correspondence with the mass of recorded experiment commonly known as Alchemy.

MR. SIJIL ABDUL-ALI asked whether Mr. Waite regarded the *Sephiroth* only as mental concepts to bridge the gulf between Deity and the created world. He asked, further, whether in speaking of KETHER as corresponding to the Metallic Root, Mr. Waite was referring to the alchemical "first matter." He added that he had seen this attributed to YESOD as the Foundation of the world.

THE CHAIRMAN said that he considered Mr. Waite's paper as a particularly interesting one and likely to give rise to many questions. He supposed that Mr. Waite would agree with him that it was most probable that the *Ash Mezareph* did not appear until after Cornelius Agrippa, because had it been accessible to him, it is most likely that he would have followed it in his allocation of planets to *Sephiroth*, the names of the planets and metals being practically interchangeable in the minds of the alchemists, as Mr. Waite had pointed out. He did not think it necessary to assume that Cornelius Agrippa had derived his allocations from an earlier Kabalistic book. No doubt he derived the general theory of correspondence from the *Zohar* as from the writings of the Neo-Platonists, but the details might, in many cases, have been the product of his own fancy. In the particular case under discussion, he seems merely to have arranged the planets in the order of their positions in the geocentric scheme, commencing with the outermost. Of course, this raised, the speaker said, the whole question of the connection between Alchemy and Kabalism. It seemed quite probable to him that the alchemists may have gone on developing Alchemy and the Kabalists developing the Kabalah, the two never having been married until the appearance of the *Ash Mezareph*. No doubt some of the alchemists might have learnt of the doctrine of correspondence through the Kabalah, but here was an earlier source,

namely the Neo-Platonists, whose views were diffused at an early date through the works of Pseudo-Dionysius—an author whose influence on the mystical philosophy of the Middle Ages seems not always to have been adequately estimated. It was very probable that the Kabalists also owed much to the Neo-Platonists.

Mr. A. E. WAITE said, in reply, that the point raised by Dr. Severn was one of considerable interest, but there was unfortunately only a single process in *Ash Mezareph* which it was possible to compare with other cryptic formulæ in alchemical literature at large. It stood out conspicuously from the rest of the text, because the Kabalistic terminology which prevailed otherwise was dropped suddenly and completely, so that the putative process emerged in the prevailing language of western Alchemy. It might be thought that it did not really belong to the work, but the explanation was that it was quoted from R. Mordecai, mentioned in the lecture. The Chairman was correct—at least from the speaker's point of view—in suggesting that *Ash Mezareph* was later than Cornelius Agrippa, though perhaps on other considerations than that which had been mentioned more especially, as there was no reason to suppose that the occult philosopher of Nettesheim had taken all Kabalistic literature for his province. As an instance in point, his acquaintance with the *Zohar*, though theoretically possible, was not at all clear from the material available in his *Three Books*. As regards Jewish theosophy and Alchemy, the *Ash Mezareph* was the one and only sign of any marriage between them, and it seemed to have produced no issue in the literature on either side. In reply to Mr. Abdul-Ali, it was not possible for the modern mind to regard the *Sephiroth* as other than mental concepts devised to bridge the gulf between Deity and the created world; but it must be remembered that for Kabalists they were spheres of created or alternatively of begotten intelligence, as indicated in the lecture. The "Metallic Root" probably signified what western Alchemy understood as the First Matter, but the second classification referred philosophical Mercury to KETHER and Lead to YESOD, which does not seem to be the place of the First Matter, according to either list. Yet it would be a possible allocation if the principle of the text were accepted—that "all systems lead to the one truth." It was not possible to answer adequately the questions asked by Miss Miles. The primordial text of Kabalism was *Sepher Yetzirah*, which the speaker ascribed tentatively to the fourth century of the Christian era. The most probable view concerning the *Zohar* was that it embodies old materials with much that is of modern authorship comparatively—that is to say, of the thirteenth century. The term "Moon-Lady" represented the lecturer's rendering of "Luna of the Wise," "Metallic Woman," etc., used in the Kabalistic text.

THE JOURNAL OF THE ALCHEMICAL SOCIETY

EDITED BY H. STANLEY REDGROVE, B.Sc. (LOND.), F.C.S.

VOL. II. PART IO.

FEBRUARY, 1914.

REPORT OF TENTH GENERAL MEETING.

THE tenth General Meeting of THE ALCHEMICAL SOCIETY was held at 8.15 p.m., on Friday, February 13th, at The International Club, Regent Street, S.W. The chair was occupied by Sir Richard Stapley, one of the Honorary Vice-Presidents.

The Honorary Secretary announced that Mr. F. A. Higgs had been elected to membership of the Society.

A paper was read by Mr. Sijil Abdul-Ali, entitled "Some Notes on the Doctrine of the First Matter, with Special Reference to the Works of Thomas Vaughan," which was followed by a discussion. (The paper and an abstract of the discussion are printed in the present number of the JOURNAL.)

A vote of thanks was passed to Mr. Abdul-Ali for his paper.

SOME NOTES ON THE DOCTRINE OF THE FIRST MATTER, WITH SPECIAL REFERENCE TO THE WORKS OF THOMAS VAUGHAN.

By SIJIL ABDUL-ALI.

IN my previous paper I gave some account of certain analogies which appear between scientific and alchemical theories respecting the nature and genesis of matter. That essay embodies some preliminary suggestions, acceptable perhaps on their own ground, but apparently incapable of very effective development; and—except in so far as it may serve to create or stimulate a small inductive presumption in favour of Alchemy, or at least in some degree to counteract the scientific prejudice against it—such analogical comparison requires to be superseded.

My object in thus initially stating the case will become clearer as we proceed. There is, however, one essential and fairly evident reason which I will submit forthwith; and it arises from a conversion which the scientific mind must undergo before it can appreciate the claims and concepts of Alchemy. On its experimental side, the history of Alchemy is to be regarded as the early history of chemistry, in the days when experimenters still strove to interpret new phenomena solely in the light of old doctrines. The cleavage came when

experimental chemists, weary of the constant repetition of obscure, tantalizing formulæ which no one really seemed to understand, broke away from the old teaching and instituted theories of their own to explain the observed facts. That was the beginning of chemistry as a distinct science, with its own practice and its own doctrine; and we may say, roughly speaking, that it occurred about the middle of the seventeenth century. Of course, the birth of chemistry did not mark the death of Alchemy: the separation was gradual, at any rate on the purely physical side. In fact, it was at this time that Thomas Vaughan was publishing his remarkable tracts; and the years surrounding the date of Boyle's famous book, *The Sceptical Chemist* (1661), witnessed the publication in England of a large number of alchemical treatises. But in regard to the determination of purely empirical data, chemistry, under a new impulse and having before it another goal, was soon to take the lead: the alchemists' concern, as we shall see, was of a different nature.

It is because Alchemy had its own peculiar quest, which was quickly lost sight of by the experimental chemists, that the mental conversion to which I have alluded becomes so necessary, and, to some of us, so severe. Differences arose, as I have said, both in theory and practice, and those differences have now become enormous; but they are not fundamental. Had Alchemy been merely an incipient, experimental science, patiently labouring, under practical disabilities and theoretical delusions, to an efficient practice and a clear theory, then chemistry might have been born from it as naturally and as easily as, for instance, the steam-engine was born from the observance of a boiling kettle. But it was not so, and the two cases are not comparable. There is a subtler, more critical distinction, which must be related to the change in mental attitude and outlook and the consequent change in the method of theorizing, rather than to inherent disparities between the theories themselves. This change, contemporaneous and consistent with the growing movement towards intellectual freedom, indicates the restlessness of a spirit which was chafing under the restraints of dogma, however venerable that might be. Impatient of the everlasting syllogism, Vaughan attacks the Aristotelian philosophy and pleads for an appeal to nature: Boyle, discarding further the age-worn Hermetic concepts, initiates an experimental examination of phenomena without ulterior—that is, non-chemical—objects, and establishes what may be called “chemistry for chemistry's sake.” The old science, with its strange, mystic quest, its longing to realize in physics what was learned in the sanctuary, was slowly henceforward to retire from the experimental field into the precincts whence it issued. The sacredness of Nature; the divine secrecy in which her operations were veiled; her ineffable oneness with the brooding, animating Spirit upon whose

bosom she rested and in whose Life she lived; these attributes, so revered by the Christian disciple of Hermetic tradition, had little meaning for the generations of chemists which were soon to arise. But the chemist, if he despised the mystic, suffered an equal scorn. The cleavage spread. The chasm became impassable, partly because of its nature, partly because no attempt was made to bridge it; and so it has remained to this day. I do not think we have lost the power to worship; but perhaps we need to seek again something of the old sense of reverence. I wish we could check the instinct which would prostitute nature to our inventions; that prying curiosity which banishes the sublime. A touch of the older spirit, a confession of wonderment, a confession of want, would not disgrace our science or render it less efficient. But we are very proud: the effect of newly acquired knowledge is to make us so; and some will understand me when I say that to turn from the brilliance of twentieth-century science to the softer glimmer of a despised lore, is hard at first, and sometimes humiliating.

Yet this is the sort of conversion which Alchemy demands, and without which there can be no real entry into the atmosphere of its secret tradition and zealous faith. In doctrine, Alchemy is the experimental verification of truth. Its tradition, overtly or covertly, derives from the Kabbalah, in the light of which rests its scriptural faith. It starts, therefore, with a Mosaic theory of creation and a doctrine of the soul's origin and salvation; and these, on the authority of an axiom traditionally ascribed to Hermes Trismegistos, are symbolically presentable in a chemical experiment. This is the concern of the alchemist, and his unique claim is to have discovered the material and performed the work. It is the material, the mysterious "first matter," to which I want now to draw your attention, with regard especially to its doctrinal implications.

The author whom I have selected for particular consideration is the English (or rather Welsh) mystic who wrote under the name of "Eugenius Philalethes," and whose writings make a compendious memorial to the theory we have under review. For a general account of Vaughan's mystical philosophy, I must refer you to the essay with which Mr. Waite has introduced his edition of *Lumen de Lumine*. Vaughan's tracts are not numerous, and the most important of them have been edited and published in recent times, although, with the exception of the one just mentioned, they are out of print. The list is as follows:—

Euphrates, or The Waters of the East, 1655 (See *Collectanea Hermetica*, edited by W. Wynn Westcott, M.B., Vol. VII., 1896).

Lumen de Lumine, or A New Magical Light, 1651. (Edited by A. E. Waite, 1910.)

Anthroposophia Theomagica, or A Discourse of the Nature of Man, and his State after Death, etc., 1650.

Anima Magica Abscondita, or A Discourse of the Universall Spirit of Nature, etc., 1650.

Magia Adamica, or The Antiquitie of Magic, etc., to which is added A Perfect and True Discoverie of the true Cœlum Terræ, etc., 1650.

(See *The Magical Writings of Thomas Vaughan*, edited by A. E. Waite, 1888).

Aula Lucis, or The House of Light (1651).

The Fame and Confession of the Fraternity of R.C., 1652. (Translation with Preface).

A Brief Natural History, etc., 1669.

The quotations which follow are from the editions named above. Where necessary, I have modernized the punctuation and orthography.

Of the "first matter" as a visible, tangible substance I can say very little, and must let the alchemists speak for themselves. Most of them agree that they have seen it; but the accounts of its appearance are conflicting, and we are left in doubt as to whether it is to be sought in nature or made by art, and also as to how it is to be found or produced. We read :

"There is a substance homogeneal,
Which object lies unto the vulgar view,
Whence are produced bodies mineral,
For it of them is th' only matter true;
This substance altered is by long digestion
To sundry kinds which differ in perfection."

[*"EIRENEUS PHILAETHES"*: *The Marrow of Alchemy*, 1654, p. 1.]

This is fairly representative and may serve for the moment as a definition of that physical substance which, one in essence, is manifold in form. You will observe here the implication of an evolutionary theory (which is elsewhere explicitly stated) that metals are slowly concocted and brought to perfection in the earth by heat; and the teaching which arises out of that hypothesis is that what nature can do, art can do by imitation of natural conditions. The matter is a homogeneous substance, "a dissolved, flowing and thickened water. . . an exceedingly soft, moist, fusible, flowing earth, an earth of wax that is capable of all forms and impressions. . . It is a divine, animated mass, of complexion somewhat like silver . . . The thing itself is a world without form . . . a weak, virgin substance, a certain soft, prolific Venus, the very love and seed, the mixture and moisture of heaven and earth . . . the mother of all things in the world" [*Lumen de Lumine*, pp. 36 and 37] Again, " . . it is not rain-water, nor dew; but it is a subtle mineral moisture, a water so extremely thin and spiritual, with such a transcendent, incredible brightness, there is not in all nature any liquor like it, but itself. In plain terms it is the middle substance of the wisemen's Mercury, a water that is coagulable, and may be hardened by a proper

heat into stones and metals: . . . it is a water made by nature, . . . nor is it mere water, but a spermatic, viscous composition of water, earth, air and fire; all these four nature unites in one crystalline coagulable mass, in the form or appearance of water, and therefore I told you it was a water made by nature." [*Aula Lucis*, pp. 7 and 8]. Further, and in the same book, we read: "The first matter is a miraculous substance and of which you may affirm contraries without inconvenience. It is very weak, and yet most strong; it is excessively soft, and yet there is nothing so hard. It is one and all; spirit and body; fixed and volatile; male and female; visible and invisible. It is fire, and burns not; it is water, and wets not; it is earth that runs, and air that stands still; in a word it is Mercury, the laughter of fools and the wonder of the wise, nor hath God made any thing that is like him. He is born in the world, but was extant before the world; and hence that excellent riddle which he hath somewhere proposed of himself. I dwell (saith he) in the Mountains and in the Plains, a Father before I was a Son: I generated my Mother, and my Mother, carrying me in her womb, generated me, having no use for a nurse. This is that substance which at present is the child of the Sun and Moon, but originally both his parents came out of his belly. He is placed between two fires, and therefore is ever restless. He grows out of the earth as all vegetables do, and in the darkest night that is, receives a light from the stars and retains it. He is attractive at the first, because of his horrible emptiness, and what he draws down is a prisoner for ever; he hath in him a thick fire by which he captivates the thin, and he is both artist and matter to himself. In his first appearance he is neither earth nor water, neither solid nor fluid, but a substance without all form but what is universal; he is visible, but of no certain colour, for chameleon-like, he puts on all colours, and there is nothing in the world hath the same figure with him. When he is purged from his accidents, he is a water coloured with fire, deep to the sight, and as it were swollen; and he hath something in him that resembles a commotion. In a vaporous heat he opens his belly and discovers an azure Heaven therein, tinged with a milky light: within this *calum* he hides a little sun, a most powerful, red fire, sparkling like a carbuncle, which is the red gold of the wise-men. These are the treasures of our sealed fountain, and though many desire them, yet none enters here but he that knows the key and withal how to use it "

[*Ibid.*, pp. 14-17].

I could give you many other citations, describing, often in poetical or mystical metaphor, this wonderful substance "that is the foundation of all nature. . . . the matter whereof all things are made, and wherewith being made are nourished." [*Euphrates*, p. 7]; but for those I must refer you to the works themselves. The doctrine, in so far as it relates to a sensible substance, I shall not attempt to justify: that is a subject for the investigation of those who consider the

undertaking worth the while. I want, however, to regard some of the implications of this theory and also its philosophical basis. "We know very well there is but one matter out of which there are found so many different shapes and constitutions," says Vaughan [*Anima Magica Abscondita*: see *The Magical Writings*, p. 54], commenting upon which Mr. Waite remarks "that the fundamental distinction between matter and mind which has serious philosophical obstacles is practically destroyed by this hypothesis in its mystical aspect, which may be briefly epitomized as follows: There is but one substance infinitely differentiated in the universe." That is, very broadly, the philosophical basis; and its relation to Alchemy, considered as an art which must transcend nature, is indicated by the author of the *Suggestive Inquiry*, who writes: "The theory of Alchemy, though arcane, is very simple; its basis indeed may be comprehended in that only statement of Arnold di Villanova, in his *Speculum*,—*That there abides in Nature a certain pure matter, which, being discovered and brought by art to perfection, converts to itself proportionally all imperfect bodies that it touches.*" [*A Suggestive Inquiry into the Hermetic Mystery*, etc., 1850, p. 68].

With the idea that all matter has a single root or essence we are familiar, either through the generalizations of science or the speculations of the ancients. That doctrine is not new, and it is not peculiarly alchemical. There is a modern theory of the genesis of matter from protyles or a protyle which, as I tried previously to show, bears some resemblance to the alchemical concept. But the similarity is analogical, not fundamental: it is interesting, perhaps, but does not greatly illuminate the old ideas. Some form of chemical protyle may conceivably be postulated as the logical outcome—or shall I say remnant?—of the pre-scientific speculations so far as natural science is concerned; but the modern theories have another aim and basis. The protyle is hypothetically a substance out of which the elements have been evolved, but which, once having been synthesized into atomic and molecular structures, no longer exists in its primitive form; so that there is certainly no question as to whether it is to be found in the earth, or chemically isolated. But in Alchemy we are concerned with something other than the determination and rationalization of experimental data. To the alchemist, because of the ineffable Oneness of the Cosmos, knowledge of nature was knowledge of reality. The Universe had no flaw. One law prevailed, one scheme, one purpose. In an idealistic sense, nature was the explicit intention of divine ideation; her operations, rightly interpreted, were infallible indexes to truth. The key to a right interpretation came by revelation; so that of two men presented with the same phenomena, one might understand his experience rightly (*i.e.*, cosmically) and the other might never apprehend its real significance at all. From the posited constitution of the Universe, it followed that knowledge was of one kind and that it was holy

because its object was divine. There was, therefore, no division of sacred and secular: all was sacred. Knowledge was by revelation. Its subjective condition was reverence, passivity, faith. It was necessarily referable to and confirmable by experience, and might even in certain cases arise concurrently therewith; but it was never held to arise out of experience, that is, to be purely empirical in origin. From faith as the subjective essential of knowledge, and a certain kind of supersensuous knowledge as the *a priori* condition of experience, there followed the possibility of a full, cosmic science, referable on the one hand to the data of experience and on the other to the highest mystic intuition of reality. Such was the hypothesis which Alchemy set itself to demonstrate; and the claim to have performed the work, to have effected the physical ultimatum, and so to have sealed for ever the Hermetic maxim with the seal of Truth—that is uniquely the claim of Alchemy, and constitutes the basis alike of its condemnation and applause.

With the origin of the particular metallic symbolism which the alchemists chose, I am unacquainted: in any case it is probably a matter of speculation. The curious astrological allocation of metals to planets seems arbitrary enough, and the same may be said of Kabalistic Alchemy, although in both cases I am prepared to admit the possibility of an inner co-operation which weaves the threads and fragments of phenomena into a secret whole. We read that in the days when there was one science, without disparity of parts, "the professors of this art divided it into three parts—elemental, celestial and spiritual. The elemental part contained all the secrets of physic, the celestial those of astrology, and the spiritual those of Divinity." (*Lumen de Lumine*, pp. 14 and 15). In any case, occult tradition will justify, by the posited relation of parts to one another and to the whole, the assumption of a necessary connection between any one thing in the Universe and any other; and even scientific research reveals some likeness between an atom and a solar system. But what is true of metals is true of stars: what is true of man is true of the Universe. That is the working principle, fundamental to the whole wealth of speculative cosmology which is conveniently catalogued as "occult science." It amounts to a categorical definition of the law by which reality is manifest, and involves, as I have indicated, the unconditional implication that reality is symbolized in nature and that the diverse paths of experience have but a single goal. The Universe externalizes One Thing, which, shrouded in the majesty of its own Infinite Being, embodies itself in ever increasing multiplicity of form. It is manifest, so to speak, in concentric spheres, the outermost of which is matter: he therefore who can interpret the design of one sphere has a sign or symbol of the whole creation. But no man can interpret any sphere without a clue; and the clue, as I have said, does not come out of experience. "Give me an Art," exclaims Vaughan, "that is a perfect, entire map of the crea-

tion, that can lead me directly to the knowledge of the true God, by which I can discover those universal, invisible essences which are subordinate to him—an Art that is no way subject to evil, and by which I can attain to all the secrets and mysteries in nature." [*Magia Adamica*. See the *Magical Writings*, p. 100.]

By what criterion can we judge whether or not an art gives us such a "perfect, entire map of the creation"? Obviously only by some knowledge of the nature of creation itself. The initial question before the alchemist was: How must I approach nature, or how must I manipulate phenomena, in order to present experimentally this visible symbol of truth? In philosophy there are two main forms of the epistemological problem, namely: (1) What must be the nature of knowledge in order that it shall conform to reality, and under what conditions does such knowledge arise? (2) Accepting the possibility of knowledge, the elements of which are given in experience, what must be the nature of a reality which conforms thereto? Or, in more technical language, What must be the nature of an object which by hypothesis is knowable? The first question (which admits the sceptical answer that in no circumstances does the knowledge-relation arise) begins with reality, or with the object, and asks something about knowledge. The second question begins with knowledge and asks something about the object. But the alchemist's question assumes that there is one reality (as the object), assumes that it is knowable, and asks something about the subject—namely, how shall he adjust experience in order that it shall yield him knowledge? To begin with experience is the method of induction, which took definite shape when experimental science arose. To end with experience—or perhaps, as Vaughan contemptuously suggests, never to come to experience at all—is the method of deduction, which was that of the Schoolmen. A singular fusion—I will not say, confusion—between induction and deduction is characteristic of Alchemy.

It becomes increasingly evident that the real concern of the alchemist was one thing; that of the chemist was another. Primarily, it was the anxiety to see his faith vindicated which urged the alchemist into the experimental field and led him to make chemical discoveries. It is said that the alchemist was seeking to make gold; that is true; but gold itself was not the prize. To make it so was to mistake the symbol for that which it symbolized. Doubtless there were many who made this mistake: we know that their race is not yet extinct; but with such we are not concerned. Fundamental to this theory of transmutation was the doctrine of one material root. Some alchemists taught that the metals represented various stages in the evolution of nature, the perfection of which was gold, and that therefore it was only requisite to aid her in her own work. [See especially *The New Pearl of Great Price*.] Others (including Vaughan) expressly declare that no transmutation is possible without a reduction

of the body to its primitive, non-specific condition. For instance: "In this chapter shall be shewed (by authority of many authors) that it is necessary to dispose this thing or body, that it may be fit for the separation of the elements, which could not be done if first it were not reduced to the first matter: for any body standing in his being, hard, solid and compact, is not fit for the separation of the elements, much less for the metallic transmutation. Therefore it is need (as is above said) to reduce it to the first matter, according to the speech of Aristotle . . . Let the artificers of Alchemy know that the kinds of metals cannot be transmuted unless they be reduced to the first matter." [*A Revelation of the Secret Spirit, declaring the most concealed secret of Alchymie*, 1623, pp. 36 and 37]. Philosophically, the doctrine of reduction is important, as we shall see later.

Now Vaughan's particular thesis is, in his own words, as follows: "Said the Cabalist: 'The Building of the Sanctuary which is here below is framed according to that of the Sanctuary which is above.' Here we have two worlds, visible and invisible, and two universal natures, visible and invisible, out of which both those worlds proceeded. The passive, universal Nature was made in the image of the active, universal One, and the conformity of both worlds, or Sanctuaries, consists in the original conformity of their principles. . . . There is an universal Agent, who when He was disposed to create, had no other pattern or exemplar whereby to frame and mould His creatures but Himself, but having infinite inward ideas or conceptions in Himself, as He conceived, so He created, that is to say, He created an outward form answering to the inward conception or figure of his mind. In the second place. . . . there is an universal Patient, and this passive Nature was created by the universal Agent. This general patient is the immediate catholic character of God himself in His unity and trinity. In plain terms, it is that substance which we commonly call the First Matter. But, verily, it is to no purpose to know this notion, matter, unless we know the thing itself to which the notion relates; we must see it, handle it, and by experimental, ocular demonstrations know the very central, invisible essences and properties of it." [*Cælum Terræ*. See *The Magical Writings*, pp. 125 and 126]. This excerpt will serve as to the first matter of creation—the "first chaos" as it is otherwise called—which is referable to the passive principle correlatively implied in the concept of an active, creative Being. This is a position not without its metaphysical dilemma, but we may pass it as that which it purports to be, namely, a Kabalistic interpretation of *Genesis*, from which follows a definition of the first concern of physical Alchemy, namely, the experimental, ocular demonstration of this matter. Now here we are face to face with a peculiar difficulty which the same author has elsewhere anticipated; for he writes: "That God is the Principal and Sole Author of all things, who by His Word and Spirit hath formed and

manifested those things we see, and even those things which at present we cannot see. As for the matter whereof he formed them, it being a substance pre-existent, not only to us, but to the world itself, most men may think the knowledge of it impossible, for how shall we know a thing that was so long before us, and which is not now extant with us, nor ever was (in their opinion) since the creation? To this objection, which at first sight may seem invincible, we shall return an answer that shall break it; for we will show how and by what means we came to know this matter, and not only to know it, but after long labours, to see it, handle it and taste it." After a reference to the growth of seeds into organisms which reproduce seed after their own kind, he continues: "It is even so with the world, for it was originally made of a seed, of a seminal viscous humidity or water, but that seed disappeared in the Creation, for the Spirit of God that moved upon it transformed it, and made the world of it. Howsoever that very world doth now yield and bring forth out of its own body a secondary seed, which is the very same in essence and substance with that primitive general seed whereof the world was made. And if any man shall ask what use nature makes of this general seed, and wherefore she yields it; I answer, that it is not to make another world of it, but to maintain that world with it which is made already." [*Euphrates*, pp. 30, 31 and 32.]

In view of our modern theories, such a description appears ridiculous enough; but let us not be too hasty in judging. Even though in the end we may be forced to relinquish such concepts as having no meaning in physical science, there is meanwhile at least some inductive probability that Nature is explicable on more than one hypothesis, and that the conceptual framework which modern scientific thought has constructed in which to dispose the data of experience is not the only one into which such data can be arranged. The chief argument in favour of the scientific "laws of nature" is, speaking generally, that they embody numerical relations, the data for which pre-scientific thinkers apparently did not possess. For instance, the ancients said, naturally enough, that the earth was fixed and all the heavenly bodies moved around it. The motions of the sun and stars were easily explained: they all went round the earth once in twenty-four hours. Difficulties arose, however, in plotting the paths of the "wandering stars," or planets, and these were tentatively solved by complex epi-cyclic hypotheses. As new facts were determined the theoretical complexity increased; until Copernicus, by the inspiration of genius, hit upon the plan of making the sun immobile and letting the earth and planets revolve about that body as centre. At once followed a mathematical simplification; circles instead of epi-cycles; a single law instead of numerous complex and indefinite laws. That is why the doctrine has been accepted. Otherwise the expression "fixed in space" is meaningless, and there is no reason for applying it to one body rather than another. Given the

required degree of patience and skill, one could doubtless invent a mathematical theory of the solar system taking the earth, or one of Jupiter's moons, or an asteroid, as the "fixed point"; but it would be a vast and unnecessary labour.

If we believe that there is one final truth, there is no need to assert that there is only one road thereto; and if a man should accept an alchemical theory of nature and find that it works in experience or affords an explanation of natural phenomena, there is no *à priori* ground for denying his hypothesis. That however is a negative argument which does not justify the doctrine of a physical "first matter"—a "secondary" or "philosophical chaos." On this particular point, my own comment is that substances were actually found in nature or chemically prepared which were thought to be the matter in question. There are certainly compounds whose properties accord with many of Vaughan's descriptions; and in fact he himself indicates, in one place, that he refers to the sap of trees, for he writes: "This indeed they attract at the roots, and from thence it ascends to the branches; but sometimes it happens by the way to break out at the bark, where, meeting with the cold air, it subsists and congeals to a gum. This congelation is not sudden, but requires some small time, for if you find while it is fresh it is of an exceedingly subtle moisture, but glutinous, for it will spin into strings as small as any hair, and had it passed up to the branches, it had been formed, in time, to a plum or cherry. This happens to it by cold, and above ground, but in the bowels of the earth it is congealed by a sulphureous heat into metals, and if the place of its congelation be pure, then into a bright metal, for this sperm is impregnated with light, and is full of the star fire, from whence all metals have their lustre." [*Euphrates*, pp. 34 and 35]. But the theory is one thing: the practical confirmation of it in the particular manner which alchemists refer to, is another thing, which I am not prepared to justify. We must await, as I have said, some experimental evidence, if that be forthcoming.

Now it is clear that science, beginning with matter, quickly passes into a mental or conceptual realm, and that such transition belongs categorically to induction; for every universal judgment signifies a mental synthesis from the chaos of experience, indicating primarily a quality of mind. Hence, there is no law of nature which is not first a law of thought. The crude material of experience must pass the alembic of the intellect; and, in the concepts of Hermetic Science, it is wrought into knowledge after a precognized, universal plan. But we cannot override the gulf between mind and matter: at the end of induction there remains the question, How can this judgment represent a law of the non-mental world? It seems that the only food for mind is mind, or ideas. The quality of thought is to ascend; and the ascension is to unity. The quality of nature is to progress; and the progression seems to infinity. This progression does not satisfy. Multiplicity is incomprehensible. And so the mind

wrestles with its experience until it extracts a law or unity, and is gratified in the exercise of its synthetic function. The alchemists felt this, and therefore they said: Nature shows us her diversity, but it is a diversity of form and not of essence: it hides a unity; let her manifest this. But a matter devoid of all form is indescribable, and hence the descriptions are wonderful and incongruous. It appears always under the veil of form; but there is a constant passage from form to form, a transmutation, and an ascension which is the evolutionary process. "All temporal things derive their origin, their existence, and their essence from the earth, according to the succession of time" [*A Tract of Great Price concerning the Philosophical Stone*, Chapter I. See *The Hermetic Museum*, edited by A. E. Waite, 1893, Vol. I., p. 247]. And again: "All sub-celestial bodies consist of Matter and Form. Now the first Matter having nothing contrary unto it, cannot by the force of Nature be destroyed; and being created immediately by God, it cannot be abolished by any inferior agent. And as for the forms of natural bodies, no sooner doth any one abandon the matter it informed, but another instantly steps into the place thereof; no sooner hath one acted his part and is retired, but another presently comes forth upon the stage, though it may be in a different shape and to act a different part; so that no proportion of the matter is, or at any time can be, altogether void and empty; but like Vertumnus or Proteus it turns itself into a thousand shapes, and is always supplied and furnished with one form or other, by a Power divine above nature." [*Aula Lucis*, pp. 4 and 5].

From one point of view, and speaking figuratively, we may say that the first matter is that universal essence of which every created thing is a discrete fragment, struck off and sealed by the Creator under a specific form or idea. The breaking of the signature, the operation upon the matter and the final re-sealing of it in a new and regenerate body was the supreme secret of transmutation, metallic and psychic; and because all was made of one stuff, and after one pattern, the work itself was one. Shall we say also that the first matter is that single substratum of the phenomenal world which the mind is impelled to seek as truly objective to itself and with which alone it can enter into a satisfying union? Is it the passive correlative to the individual, constructive mind, as the First Chaos was to God? That would probably be true; but there is a deeper mystery involved in the transition from souls to metals, for such transition demands that they all are of one substance; that is, the work is one and the matter is one.

I have already referred to Alchemy as an art which must transcend nature; and this it does in the judgment of the Sages, carrying Nature to a higher perfection than she herself attains. This is possible by the synthetic action of mind in co-operation with the Creator's purpose. The end of nature is the elimination of impurity, a sort of passive good-

ness by the mere absence of evil. But art must produce the regenerative agent, the Philosopher's Stone, which is not only in itself pure, but is actively virtuous by the possession of a purifying or tingeing efficacy. The symbolism appears strained; but at least it is a further indication of the mind's search for objective verification of its inward aspiration. Perhaps the self knows its own workings only as they flow into or are mirrored by the Universe which is broadly distinguished as the not-self: it may be that consciousness recognizes its own oneness by the multiplicity which it examines. At least we may say that all phenomena must first be dissolved into thought; and from this solution of soul and nature arise new creatures inhabiting a new world.

In Alchemy we are led from a chemical experiment to a doctrine of salvation involving purely spiritual arcana. Or are the steps from spiritual arcana to chemistry? It is all one. There is one work, which is the work of the Creator. The design is His design, and the method is His method. "In a word," writes Vaughan, "salvation itself is nothing else but transmutation. 'Behold,' saith the Apostle, 'I shew you a MYSTERY: we shall not all die, but we shall be all CHANGED, in a moment, in the twinkling of an eye, at the sound of the last trumpet.'" [*Lumen de Lumine*, p. 78]. There is a first matter of souls, into which they must be resolved, "that Unity, that Over-Soul, within which every man's particular being is contained, and made one with all other," as Emerson has written. From this sense of oneness arises unselfishness, which is a primary quality of discipleship; but here are regions beyond our present scheme. At the summit of the individual consciousness is the presiding unity; but the soul is not self-satisfied: it still seeks communion with a Being loftier and richer than its own. There remains that which can scarcely be said without paradox, yet which must be accepted if we are to understand the Cosmos as a unity, and it is the final identification of the first substance of matter with that of spirit. It is implied by Vaughan when, speaking of the extraction of the first matter from the four elements, he adds that "it is the Minera of Man, whereof God made him; in a double image did he make him in the day that he became a living soul . . ." [*Aula Lucis*, p. 13]. This is perhaps the only solution which can be offered to the problem of consciousness and externality, or the disparity between spirit and matter. It may be that human reason is inadequate to the task, but it seems to demand that the chasm be bridged. I suppose we can only conjecture that the one matter itself must ultimately be dissolved into the supreme and solitary Being of the Creator who must also be the soul's last resting place. Somewhat in this sense also we might understand the doctrine of the final re-union of soul and body. But about the way of the soul are clouds and darkness; and there are mysteries which cannot be spoken, because the soul knows not yet the language in which it shall give them utterance.

ABSTRACT OF DISCUSSION.

MR. H. STANLEY REDGROVE said that he considered Mr. Abdul-Ali's paper a very important one, because from one point of view, epistemology was the first of all studies, and if we were really to understand the meaning of Alchemy, we must understand the alchemists' epistemology aright. As the lecturer had pointed out, it was not from experience that one derived knowledge, and yet one could not get knowledge without experience. Induction was thus like a magic ritual, in which the data of experience were the symbols employed, and if the ritual was performed correctly, the mind was illuminated with light from above. The point that the lecturer had made that the method of Alchemy was a fusion of induction with deduction was, he thought, a very good one. Modern science commenced with the data of the natural sphere and in the hands of the philosopher its conclusions could be elevated to that of spirit. But the alchemical method was essentially the inverse of that. The experiences which the alchemists utilised were those of the mystics supplemented (at least, in later days) by the doctrines of the Church. There seemed, if the principle of analogy were a valid one, to be no *à priori* reason why their method should not have yielded doctrines satisfactory in the realms of chemistry and physics. But it might very seriously be questioned whether the alchemists' knowledge of spiritual verity and of the principle of correspondence was adequate to the needs of their project. Mr. Abdul-Ali's point that the accepted "laws of nature" were not the only organs of thought possible wherewith experience might be dealt with satisfactorily was also, he thought, a very important one. As M. Poincaré had pointed out, every phenomenon admitted of infinite explanations: the simplest in every case was the one modern science adopted. What we had to recognise, however, was that truth was concerned only with relations, and it was by positing the fixed, the absolute, the unrelated, and by attempting to treat it as true that this ambiguity arose. It was, for example, as false to say that the earth moved around a stationary sun as it was to say that the sun moved around a stationary earth. What was true was that earth and sun moved with respect to one another: that the relationship of motion existed between them. It was similar with the assumption of the existence of material substance: all that we could in truth assert as real were those relationships—those phenomena—which were loosely called the properties of this substance. He could not agree with the lecturer in regarding Alchemy as the child of the Kabbalah.

Dr. HOPGOOD expressed his appreciation of the paper. He said that he considered the reference to the sap of trees as of interest, because Paracelsus and other alchemists prepared their vegetable essences in a different manner from that of modern pharmacists, taking the trouble to extract the

ashes, and he thought it was possible that they may have had different properties from the modern preparations. He agreed with Mr. Redgrove in his remarks anent the Kabbalah. The Kabbalah, he thought, was unknown to the older alchemists, though no doubt had they known it they would have sympathised with its doctrines. Some thought that Western Alchemy came from China, but, for his part, he considered Egypt to be a more likely birth-place. Moses was educated in the skill of the Egyptian priests and his preparation of potable gold from the Israelites' calf, referred to by Mr. Old at an earlier meeting of THE ALCHEMICAL SOCIETY, was an alchemical feat which he doubted whether anyone could now effect.

Mr. J. W. FRINGS said that he thought Mr. Abdul-Ali's handling of the subject of "the first matter" had been most interesting. It had occurred to him that certain recent discoveries in astrophysics might help in elucidating the nature of "the first matter." He understood that the matter of which the hottest stars were composed was of such a character that it revealed to the spectroscope no definite element as we knew it on earth. But as the atmosphere of such astral bodies cooled the known elements began to emerge, hydrogen being the first. In radioactive change, on the other hand, elements of the highest atomic weight are reduced practically to the etheric condition, and to him it seemed, he said, that these two processes exhibited analogy with those of Alchemy.

THE CHAIRMAN said that he had listened to the lecture with great interest. We were to-day pursuing an enquiry similar to that of the alchemists, investigating the phenomena of Nature to find "the first matter"—the first cause—and it seemed to him that the ultimate conclusion, in modern terms, was that the first matter was spirit. He was much interested in the alchemical view of the earth as that of a crucible in which the metals were being formed. A similar process was taking place in the atmosphere every day, and the same remark was surely true when we came to the region of humanity. This, too, was the belief of the old alchemists. There was, he thought, a purpose behind all the conflicts which went on in the natural life. There was that same crucible in which humanity was being thrown to-day as all through the ages, for some higher purpose than we had ever conceived. We could only look to nature for analogies, believing that the things which were seen were some evidence of the things unseen, that out of the turmoil and fiery heat of the world in which we are, there was being produced all that made life beautiful, and that an analogous process was taking place in spiritual spheres, bringing about something beyond our present ideas of good. It might seem paradoxical to say that "the first matter" was spirit; but it was not a new idea; in fact, it was in the paper itself. It seemed to him the most logical and the most acceptable reply to the question, What was the first matter?

Mr. SIJJIL ABDUL-ALI, in his reply, said that, with regard to the points raised by Mr. Redgrove he had little comment to make, as Mr. Redgrove's remarks more or less amplified his own views. The comparison between induction and magic was suggestive, and was borne out in the process of the alchemical work, because, having prepared the matter and arranged the conditions, the alchemist had to await the influx of the Spirit which was to take up again, in a regenerate form, its temporarily deserted body. The elements of induction were given in experience; but the power to classify, to judge, to generalize, was essentially a faculty of mind, and proceeded from a spiritual, non-empiric source. He had not meant to assert that Alchemy was the child of the Kabbalah: perhaps the statement in the lecture had been rather too emphatic, but he had merely intended to point out that, in so far as the alchemists relied upon the Bible and occult tradition—and he was, he confessed, thinking chiefly of the later alchemists, and especially of Vaughan—such tradition seemed to be Kabbalistic in essence, whether the doctrine of the Sephiroth was openly declared or not. Dr. Hopgood's remarks about vegetable essences were no doubt true, but it was rather difficult to see how they interpreted the alchemical concern, which was specifically a metallic one. Paracelsus was an iatro-chemist. Great interest attached, in the speaker's opinion, to Mr. Frings' suggestions, but, as already said, the similarity here, however useful by way of analogy, could hardly be considered fundamental. The conclusions of the alchemists were arrived at by methods very different from those of modern research, and entirely without the elaborate machinery of astro-physics. The Chairman's observations scarcely called for reply. There seemed to be considerable evidence that humanity was at present in the "crucible" or "melting-pot" stage—what the alchemists would have called the state of "putrefaction"—out of which many were looking for a new and regenerate humanity to arise. It was, of course, impossible to judge the present age fairly; we were too close, and the perspective was exaggerated; but such appeared to be the signs of the times. The speaker thanked the members present for their kind appreciation of his paper.

LA SOCIÉTÉ ALCHIMIQUE DE FRANCE.

MEMBERS of THE ALCHEMICAL SOCIETY will no doubt be glad to know that an *entente cordiale* is being established between *La Société Alchimique de France* and THE ALCHEMICAL SOCIETY, which it is hoped will prove of benefit to the members of both Societies and will advance the objects which they have in common. It is hoped that it will be possible to announce further particulars at the next General Meeting of THE ALCHEMICAL SOCIETY and to publish these in the next issue of the JOURNAL.

THE JOURNAL OF THE ALCHEMICAL SOCIETY

EDITED BY H. STANLEY REDGROVE, B.Sc. (LOND.), F.C.S.

VOL. II. PART II.

MARCH, 1914.

REPORT OF ELEVENTH GENERAL MEETING.

THE eleventh General Meeting of THE ALCHEMICAL SOCIETY was held at 8.15 p.m., on Friday, March, 13th., at the International Club, Regent Street, S.W. The chair was occupied by the Acting President, Mr. H. Stanley Redgrove, B.Sc., F.C.S.

The Chairman announced that the Honorary Secretary was prevented from being present by severe illness in his family.

It was announced that Messrs. Thomas Marson and Johnson Decker had been elected to membership of the Society.

The Chairman called the attention of the members present to the fact that the Annual General Meeting would be held immediately after the ordinary General Meeting in May; in accordance with the Rules and Constitution of the Society, all the Officers would resign, as well as two Ordinary Members of Council; the Officers were eligible for re-election, the two resigning Ordinary Members of Council were not; nominations (in the form prescribed by the Rules and Constitution) were, therefore, required for two Ordinary Members of Council and could also be made in the case of Officers.

A paper was read by Mr. B. Ralph Rowbottom on "Roger Bacon", which was followed by a discussion. (The paper and an abstract of the discussion are printed in the present number of the JOURNAL).

A vote of thanks was passed to Mr. Rowbottom for his paper.

ROGER BACON.

By B. RALPH ROWBOTTOM.

It is the unhappy knack of a peculiar and unfortunately very common type of mind always to see the anticipation of the present in the past; it sees the work of Dalton in the philosophy of Jainism; the generalisations of Darwin in the early literature of the Greeks, and so on.

On close examination, however, it will be seen that the atomic theory of modern chemistry is entirely distinct from the nebulous hypotheses of early Indian and Greek speculation; that the biological theories of natural selection and variation bear no resemblance to the guesses of Empedocles. Such being the case, it may be stated without fear of serious contradiction that our present particular and general knowledge of the workings of nature is the direct result of the application of scientific methods, and it is here that our attention will be directed to Roger Bacon, as, in the words of Professor Meyer "He is to be regarded as the intellectual originator of experimental research, if the departure in this direction is to be coupled with any one name." [ERNEST VON MEYER: *A History of Chemistry*, 1906, p. 35.]

It is a deplorable fact that even to-day we do not know the exact number of Bacon's works and are certain neither of the date of his birth nor of his death.

The common sources from which all who have dealt with his life appear to have drawn are the following:—J. LELAND: *Collectanea*, VII. p. 288, copied by Tanner in the *Bibliotheca Hiberno Britannica*, 1748, p. 62; BALEE: *Script. illust. m. Britann*, 1548; PITS: *Relationum historicarum de rebus Anglicis*, Paris, 1619; WADDING: *Annales ordinis minorum*, Lyon, 1628, Vol. 2. p. 293. In 1861, however, Emile Charles, the eminent scholar, collected, sifted and analysed all available material in his carefully written and wholly excellent book, *Roger Bacon; sa Vie, ses Ouvrages, ses Doctrines*.

Roger Bacon* was born near Ilchester in Somersetshire probably about the year 1214. His family seems to have been one of good social standing and fortune. Very little is known of his early years and it is not until we find him at Oxford that we have any definite knowledge as to his thoughts and aspirations.

It is well to remember that at this time the University of Paris was the stronghold of orthodoxy, whilst Oxford, to which Bacon first proceeded, was the home of the liberal and advanced spirit. In fact, Oxford was the great protector of mathematical and experimental science. This early influence in the life of Bacon was undoubtedly a potent one. About 1233 (1240 according to some authorities) he appears to have taken orders as a Franciscan, and some time afterwards travelled to Paris in order that he might study under what were considered the most learned theologians in Europe. Whilst at Paris he took the degree of doctor of theology, and is supposed by some to have held a post as

* Emile Charles says "On trouve dans les manuscrits son nom écrit de diverses manières: Bacun, Bachin, Bacchon, Bacon. [l.c., p. 4.]

teacher in the University. It is to be noted, however, that he did not confine his studies to any particular branch of learning, but attempted to comprehend the sciences in general.

A marked influence was made on his thought at this period by the Arab writers, especially Avicenna, Alfaragius and the arch-heretic, Averroës. They seem, indeed, to have had on Bacon's mental development an influence second only to that of Oxford.

He returned to England in 1250 and probably stayed at Oxford until 1257, when he was so unfortunate as to incur the suspicion of his Order, who accused him of magic; consequently he was banished to Paris, where he remained in close confinement and was forbidden to write. In 1266, however, Pope Clement IV. wrote to Bacon asking him to write down and send all his works as soon as possible. The full text of the letter may be found in the *Opera Quaedam Hactenus Inedita*, 1859, (J. S. Brewer) p. 1. This letter seems to have thrown Bacon into a state of great mental excitement. After persecution and continual neglect, to receive a command from the Vicar of Christ was indeed an honour, and he determined the request of the pope should be answered in a worthy manner. He therefore drew up and sent to the pope three treatises composed at intervals of only several months. The first was the *Opus Majus*; then apparently fearing loss, he drew up a second treatise, similar in substance, but in a condensed form, which he called his *Opus Minus*; then not satisfied, he prepared a third version, *Opus Tertium*, and this also he sent to Clement. And, here, a remarkable fact must be noted. The papal letter to Bacon is dated 1266. All was accomplished and the three works completed before the end of the year 1267. He has given us his most solemn assurance that at the time of his receiving the papal letter, no portion of his works had been written [*Opus Tertium*, Chap. II.], and the fact that he was a Franciscan Monk under surveillance bears this out.

The three works were composed, written and sent to the Pope within 15 or 18 months after the receipt of the papal mandate. This is surely one of the literary feats of history, perhaps only surpassed by Swedenborg when he wrote six theological and philosophical treatises in one year. Bacon's works seem to have been regarded favourably by Clement, who procured the monk's release and his return to Oxford.

In 1271, however, Bacon made an attack on the clergy in his *Compendium Studii Philosophiae*—an encyclopædical work in which he explained his whole system of philosophy in detail, which he called *Compendium* because of his own vast conception of the province of philosophy—whereupon Jerome

de Ascoli, the head of the Franciscan Order, condemned Bacon's works, and ordered his close confinement. At the expiration of ten years, however, Jerome de Ascoli was chosen pope, and assumed the name of Nicholas IV. He was the first of the Franciscan Order to attain this dignity and was considered a man of great learning, so Bacon applied for his release, addressing to him a strange treatise entitled *Libellus Rogerii Baconi Angli, doctissimi mathematici et medici, de retardandis senectutis accidentibus et de sensibus conservandis*, Oxford, 1590. An English translation entitled *The cure of Old age and Preservation of youth, by the great mathematician and physician, Roger Bacon, a Franciscan Friar*, was made by Richard Brown, London, 1683.

The application to the pope was without effect, but towards the end of Nicholas' reign, Bacon, through the assistance of some noblemen, was released. He again returned to Oxford, where in 1292 he wrote his last work, the *Compendium Studii Theologiae et per consequens Philosophiae*. He died and was buried at Oxford about 1294.

In 1625 a learned Frenchman [NAUDE: *Apologie pour tout les grandes personages soupçonnez de Magic*, 1625; p. 488. (English translation, 1657, p. 229)] cleared the name of Bacon from the accusation of black magic. Bacon's personal opinion of magic may be culled from the following extract taken from one of his best known and most suggestive books. "But as far as those things that are contained in the magicians books, we must utterly reject them, though they bee not altogether devoyde of truth, because they be so stuffed with fables, that the truth cannot be discerned from falsehood." [An excellent discourse of the admirable force and efficacie of Art and Nature, London, 1597, p. 57.] Yet despite such plain language, he is usually pictured as an unhealthy mystic. Perhaps the reason may be that his book *The Mirror of Alchemy* [*Speculum Alchymiae*, Nurnberg, 1541,] repeated in several collections of alchemical writings published between 1500-1800* is well known, whilst his more important works, the *Opus Majus*, *Opus Minus*, and *Opus Tertium*, are scarcely known at all.

When M. Cousin wrote of Bacon that he was "L'un des plus libres et des grands esprits du moyen âge" [*Le Journal des Savants*, 1848, p. 354] he was thinking of his great works, not of his minor pamphlets; when Dr. Freind called him "The greatest genius of mechanical knowledge since the

* A French translation appeared in 1557, and was twice reprinted in 1612 and 1627, under the false title *Le Miroir de Maistre Jean Mehun*, whilst the English translation, *The Mirror of Alchymy, composed by the thrice famous and learned fryer Bacon*, was issued in London, in 1597.

time of Archimedes" [*History of Physick*, p. 235] he was also thinking of these same works. Let us, therefore, examine for a short while these creations upon which praise has been lauded by those least given to praising.

In 1773, Dr. Jebb determined to publish an edition of the *Opus Majus* from the various manuscripts known to be in English and Continental libraries. The manuscripts he made use of were the following:—

1. MS. inscribed "Jul. D. V." which contains the first part of the *Opus Majus*, under the title *De Utilitate Scientiarum*."

2. Another MS. marked "Tib. C. V." containing the fourth part of the *Opus Majus*, in which is shewn the use of mathematics in the sciences and affairs of the world; in the MS. it is erroneously called the fifth part.

3. A MS. containing that portion of the fourth part which treats of geography.

4. A MS. of the fifth part, containing a treatise upon perspective.

5. A MS. comprehending the same treatise of perspective.

6. Two MSS., one of which contains the fourth part of the *Opus Majus* and the other the fifth part.

The work as finally arranged and published by Jebb and quoted by Whewell [*History of the Inductive Sciences*, Bk. IV., Chap. V.] was as follows:—

Part I. "Of the four universal causes of all Human Ignorance, viz:—The force of unworthy authority; traditional habit; the imperfection of the undisciplined senses; and the disposition to conceal our ignorance and to make an ostentatious show of our knowledge."

Part II. "On the service of perfect wisdom in the sacred Scripture."

Part III. "On the usefulness of Grammar."

Part IV. "On the usefulness of Mathematics."

"(1) The necessity of Mathematics in Human things [published separately as *Specula Mathematica*.]

"(2) The necessity of Mathematics in Divine things.

"(3) The necessity of Mathematics in Ecclesiastical things.

"(4) The necessity of Mathematics in the State."

Part V. "On Perspective (Optics)" [published separately as *Perspectiva*.]

"(1) The organs of vision.

"(2) Vision in straight lines.

"(3) Vision reflected and refracted.

"(4) *De multiplicatione specierum*."

(On the propagation of the impressions of light, heat, etc.)

Part VI. "On experimental science."

It will be seen from the construction of this work, as quoted above, that the object was to establish a reform in the current method of philosophising. Bacon first states the reasons why science had made such slow progress; next he draws attention to the fundamental and universal application of mathematics; and finally he establishes the necessity for experimental verification. His view of the necessity for this latter is of special interest and his own book bears quotation; "There are two modes of knowing; by argument and by experiment; argument concludes a question, but it does not make us feel certain, or acquiesce in the contemplation of truth, except the truth be also found to be so by experience. [*Opus Majus*; (Whewell's translation, Jebb's edition) p. 445]. Bacon not only recognized the important part played by experiment in our investigation of the rules of nature, he also, with an almost uncanny insight, realised to the full, the universal application of mathematics. To see such truths is surely the work of a great imagination. And he is so definite. Let the depth of the two following quotations be pondered: "He who knows not mathematics cannot know any other sciences; what is more, cannot discover his own ignorance or find its proper remedies. So it is that the knowledge of this science prepares the mind and elevates it to a well-authenticated knowledge of all things." [*Opus Majus* (Brewer's Edition, page 57)] "These reasons are of universal application; to descend to particulars would be nothing more than to show how all the parts of philosophy are learned by the application of mathematics; in other words that the sciences cannot be known by logical and sophistical arguments, as is ordinarily the case, but by mathematical demonstrations descending into the truths and operations of other sciences, and regulating them, for without *mathematics* they cannot be understood or set forth, taught or learned." [*Ibid* p. 64].

As has been already stated the *Opus Minus* was similar in substance to the *Opus Majus*, but was considerably condensed. The *Opus Tertium*, on the other hand, was intended to serve as an introduction to the *Opus Majus* and *Opus Minus*, although it is later than either in the date of its composition. Although as a philosophical and scientific work it is not so valuable as those written immediately before it, it is perhaps more interesting than any other of his books. It gives us a valuable insight into Bacon's life, his feelings and the obstacles he had to overcome in the writing of his previous works. In fact, the first twenty chapters are taken up with anecdotes of Bacon's personal history. At the twentieth chapter, however, a sudden change takes place and he follows, until the end of the book, the thread of the *Opus Majus*.

The last part of the *Opus Tertium* is concerned with morality, and is identical with Part VII. of the *Opus Majus*; this latter was not published in Jebb's edition, as at that time the manuscript was undiscovered [see J. K. INGRAM: "The *Opus Majus* of Roger Bacon," *The Natural History Review and Quarterly Journal of Science*, Vol. V., 1858.] The divisions of the moral subjects of the *Opus Tertium* seem to be of special interest considering the fact that before all Bacon was a monk and a Christian. The divisions are as follows:—

- (1) Deals with the belief and conduct of man with respect to God, to the future life, etc.
- (2) Deals with public law, the public worship of God, and the government of states.
- (3) Treats of the beauty of virtue and the deformity of vice.
- (4) Deals with the different religions of the world, for the purpose of proving that only one is true and ought to be universally diffused.
- (5) Contains exhortations to the performance of the duties imposed by the religion whose truth has been established.
- (6) Has reference to the organization of tribunals and the administration of Justice. [M. Cousin's abstract: *Le Journal des Savants*, March, April, May and June, 1848].

The constructions of Bacon's great works have now been given in some detail, and the multitudinous number of subjects treated therein cannot do otherwise than arouse wonder and respect. Add to these a mastership of Latin, Greek and Hebrew, sufficient for a great reputation, and some faint idea of the man's many talents may be obtained. Yet with all his learning, he was a man of a humble spirit and truly Christian character. Like a greater than he, Isaac Newton, he was aware of his own utter ignorance and of the infinite wisdom of God. "Man is incapable of perfect wisdom in this life; it is hard for him to ascend towards perfection, easy to glide downward to falsehoods and vanities: let him then not boast of his wisdom or extol his knowledge. What he knows is little and worthless in respect of that which he believes without knowing: and still less, in respect of that which he is ignorant of. He is mad who thinks highly of his wisdom; he most mad, who exhibits it as something to be wondered at." [*Opus Majus*, Whewell's translation, p. 15.]

Perhaps no reference to Roger Bacon would be complete without a word as to the inventions usually associated with him. That he was acquainted with gunpowder is evident [see *De Secretis Operibus Artis et Naturæ*, Chaps. VI. and XI.] He also appears to have known and used many pieces

of physical and chemical apparatus, which were unknown to his contemporaries, but the evidence appears to substantiate the theory that in these matters his originality has been slightly exaggerated.

The following quotation from Mr. H. S. Redgrove's *Alchemy: Ancient and Modern* [1911, pp. 46-47] will show Bacon's opinions as an alchemist: "He was a firm believer in the powers of the Philosopher's Stone to transmute large quantities of 'base' metal into gold, and also to extend the life of the individual. 'Alchymy,' Bacon says, 'is a science teaching how to transforme any kind of mettall into another: and that by a proper medicine; as it appeareth by many Philosophers' Bookes. *Alchymy* therefore is a science teaching how to make and compound a certaine medicine, which is called *elixir*, the which when it is cast upon mettals or imperfect bodies, doth fully perfect them in the very projection' [*The Mirror of Alchymy*, 1597, p. 1] . . . Roger Bacon was a firm supporter of the sulphur-mercury theory: he says: ' . . . the natural principles in the mynes, are *argent-vive*, and *sulphur*. All mettals and minerals, whereof there be sundrie and divers kinds, are begotten of these two: but I must tell you, that nature alwaies intendeth and striveth to the perfection of Gold: but many accidents coming between, change the mettals . . . For according to the puritie and impuritie of the two aforesaide principles, *argent-vive* and *sulphur*, pure and impure mettals are ingendred.' [*Ibid*, p. 2.] He expresses surprise that any should employ animal and vegetable substances in their attempts to prepare the Stone, a practice common to some alchemists but warmly criticised by others. He says: 'Nothing may be mingled with mettalls which hath not been made or sprung from them, it remaineth cleare inough, that no strange thing which hath not his originall from these two [*viz.*, sulphur and mercury], is able to perfect them, or to make a chaunge and new transmutation of them: so that it is to be wondered at, that any wise man should set his mind upon living creatures, or vegetables which are far off, when there be minerals to bee found nigh enough: neither may we in any wise thinke, that any of the Philosophers placed the Art in the said remote things, except it were by way of comparison.' [*Ibid*, p. 4.] The one process necessary for the preparation of the Stone, he tells us, is 'continuall concoction' in the fire, which is the method that 'God hath given to nature.' [*Ibid*, p. 9.]

His writings are undoubtedly full of suggestive and pregnant thoughts, but as was hinted at the commencement of this paper, it is very easy for a certain type of mind to fall into error in these matters. Nevertheless it seems that the day will come when the name of Roger Bacon will no longer

call to mind magic or spooks, but a man, who, born into an ignorant age, shed a light not to be considered negligible even in the twentieth century.

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2. *Speculum Alchymicæ*, Nürnberg, 1541, 4to. English translation: *The Mirror of Alchymy, composed by the thrice famous and learned fryer Bacon*, in 1597, 4to., London; In the same vol. is translated part of the *De mirabili potestate Artis et Naturæ*.

3. *De mirabili potestate Artis et Naturæ et de millitate Magiæ*, Paris, 1542, 4to; and frequently either apart or in collections of alchemistic writings. French translations, 1557, and later in 1612 and 1629; English translations, 1597 and 1659, entitled *Discovery of the Miracles of Art, Nature, and Magick*. The tract is reprinted in Brewer's *Opera Inedita*, pp. 523-551, and is entitled *Epistola Fratris Rogerii Baconis de Secretis operibus Artis et Naturæ, et de Nullitate Magiæ*.

4. *Libellus Rogerii Baconi Angli, doctissimi mathematici et medici, de retardandis senectutis accidentibus et de sensibus conservandis*, Oxford, 1590. English translation: *The Cure of Old Age and Preservation of Youth, by the great mathematician and physician, Roger Bacon, a Franciscan Friar*. By Richard Browne, London, 1683, 12mo.

5. *Rogerii Baconis Angli viri eminentissimi Perspectiva, opera et studi Johannis Combachii, phil. in acad. Marpurgensi*, Frankfurt, 1614, 4to. (= Pt. V. of *Opus Majus*).

6. *Specula Mathematica in quibus de specierum multiplicatione earundemque in inferioribus virtute agitur, Combachii st. et op.*, *ibid*, 1614. (= Pt. IV. of *Opus Majus*).

7. *Opus Majus ad Clementem Papam*, ed. S. Jebb, London, fo. 1733; reprint, Venice, 1750.

8. *Fr. Rogeri Bacon opera quædam hactenus inedita* Vol. 1. containing: 1, *Opus Tertium*; 2, *Opus Minus*; 3, *Compendium Philosophiæ*, ed. J. S. Brewer, London, Rolls Series, 1859.

9. *R. B. de morali Philosophia*, Dublin, 1860. (= Pt. VII. of the *Opus Majus* not contained in Jebb's Edition) [see "The *Opus Majus* of R. B." by J. K. Ingram, LL.D., 1858, *Natural History Review and Quarterly Journal of Science*, vol. V.]

ABSTRACT OF DISCUSSION.

MRS. HINTON enquired whether there was any historical evidence of a family relationship between Roger Bacon and Francis Bacon. Roger Bacon, she thought, was certainly born many years before his time.

Mr. FRED HIGGS asked whether Roger Bacon had made any definite scientific discoveries, or whether he was to be regarded more as a philosopher than as a man of science, and his books valued only for their methods.

Mr. THOMAS MARSON said that in the interesting paper to which he had just listened there was little mention made of the transmutation of metals. It appeared to him that Roger Bacon very carefully hid all his knowledge concerning this matter under obscurities of language. He argued with the passage quoted that transmutation could only be effected by the purgation of the base metals by fire; but he would be glad if the lecturer could supply any further information of Bacon's views concerning the method. Reference had been made to *argent-vive* and sulphur; but certainly experiment held out no hope of effecting transmutation by the aid of such materials. He thought that the quicksilver and sulphur were introduced simply as means for keeping off intruders; a small quantity of sulphur thrown into an open, heated crucible producing an abundance of stifling fumes.

THE CHAIRMAN said that personally he considered Mr. Rowbottom's paper as very interesting; the most important points of value in Bacon's work had, he thought, been well emphasised, namely, Bacon's insistence upon the value of experiment, and his realisation of the ubiquitous utility of mathematics. Even nowadays the value and necessity of experimental and mathematical methods were not as fully recognised outside of strictly scientific circles, as might be wished. As concerned mathematics, as the speaker had pointed out elsewhere [*A Mathematical Theory of Spirit*, 1912,] one had only to look at the history of science to become aware that the introduction of mathematical methods had given rise to enormous advances. This was especially the case with chemistry and physics, but the biological sciences were also beginning to feel the beneficent influence of mathematics. With reference to Bacon's descriptions of optical and other machines in his book written against magic, it was of much interest to know whether he invented these things himself, or, if not, from what source he derived them. So far as gunpowder was concerned, of which mention was made in the same book, this preparation had been known for ages to the Chinese; and it was a question of much interest whether Bacon derived his knowledge of gunpowder from

this source. If this were the case, the fact would provide a strong argument in favour of the theory of the Chinese origin of Alchemy. Concerning Mr. Marson's remark about Bacon's fondness for obscurity, it might be mentioned that in his reference to gunpowder, one of the ingredients is not plainly given, but is stated in the form of an anagram; and it was certainly true that, whilst Bacon's writings were, for the most part, very lucid, when he treated of alchemical processes, he became extremely difficult to follow.

The sulphur and quicksilver mentioned by Bacon were clearly not the common bodies so called, but two principles which the alchemists assumed to exist in all the metals. This particular theory of the constitution of metals was at one time supposed to have originated with the Arabian alchemist Geber; but now that the works attributed to Geber were known to be products of the fourteenth or later centuries, some other source had to be sought for the origin of the theory. Perhaps Bacon derived it from Avicenna or some other Arabian theorist.

Mr. B. R. ROWBOTTOM, in his reply, said that there was no historical evidence of a family relationship between Roger Bacon and Francis Bacon. With reference to any definite discoveries in physics or chemistry that might be attributed to Bacon, the speaker said the question was a very difficult one, as scientific discoveries and theories were usually in the air at the time they were made, and must often be associated with more than one name. Bacon was certainly acquainted with gunpowder and also mentioned an instrument in one of his books that was probably a primitive form of telescope; but his true greatness was rather due to the fact that he was one of the first Englishmen to enunciate in clear language the method of scientific investigation. As to Bacon's views concerning transmutation, the matter was fully dealt with in Bacon's *Mirror of Alchymy*, wherein he gave full instructions as to the procedure to be adopted and the materials to be used. With regard to the suggestion that quicksilver and sulphur were introduced simply as a means for keeping off intruders, the speaker thought that the idea, although a novel one, did not explain all the facts in connection therewith. He was fully in agreement with Mr. Redgrove's remarks concerning the utility of mathematical and experimental methods, and these remarks were, he thought, of help in the attempt to estimate the value of Bacon's work. The question of the theory of the Chinese origin of Alchemy was an interesting one, but it appeared that Bacon's knowledge of gunpowder was derived from the Arabic scholars of whom he had made so close a study. It also seemed feasible to trace Bacon's acquaintance with the sulphur-mercury theory from the same source.

REVIEWS.

The Story of Alchemy and the Beginnings of Chemistry. By M.M. Pattison Muir, M.A. $6\frac{1}{2}$ ins. $\times$ $3\frac{3}{4}$ ins., pp. 185. (London, New York, Toronto: Hodder and Stoughton). Price 1s. net.

THIS little work, originally published by George Newnes in 1902, makes an excellent introduction, from the chemist's point of view, to the study of Alchemy. It outlines, in a non-technical manner, some aspects of alchemical theory, and shows how such theory was gradually replaced, particularly since the time of Boyle, by exact scientific hypotheses. The author indicates clearly (and not without sympathy) the general method of alchemical reasoning,—from the laws of the Universe as they were supposed to be, to its laws as they were to be found in experiment; and he makes a good point when he writes that "nature was to be followed with eyes closed save to one vision, and the vision was to be seen before the following began." (p. 39). That summarizes the theoretical position. Knowledge was to be gained by a study of nature, yet nature must be known before she could profitably be studied; and Alchemy, as an experimental science, fell by this inherent inconsistency in its own epistemological structure.

Mr. Muir makes an attempt (which many writers on the history of chemistry do not make) to interpret the philosophy of the alchemical quest of the One Thing, a modern form of which he finds in "the problem of the fundamental unity or heterogeneity of what we call matter." (Chapter xiv.). At the same time, he is careful to point out that here is only "a superficial resemblance"; and earlier in the book we read that "if the hypothetical primal element should be isolated, we should have fulfilled the aim of alchemy, and gained the One Thing; but the fulfilment would not be that whereof the alchemists dreamed." (p. 62). It is realized that the mind has a synthetic function which impels it to seek harmony, simplicity, oneness, and that "the alchemical view of nature . . . appeals to the innate desire of man to make himself the measure of all things" (pp. 44 and 45). These and other similar considerations in the book will suggest interesting problems to those who see in Alchemy, whatever its absurdities may have been, at least an important episode in the history of thought.

Incidentally, the significance of the quantitative laws of chemistry is well brought out. It is to be regretted, however, that the argument against the phlogistic theory on page 136 is made to depend upon the implication that we know "that what we call *quantity of substance* is measured by the property named *mass*," for it must be admitted, I

think, that this is precisely one of the things which we do not know, but which we find it convenient to assume; and it is just because we decide (arbitrarily) that "quantity of substance" shall be held to be measurable by the property named "mass" that the former phrase comes to have any definite meaning.*

There is an error on page 49 in the attribution of the passages which follow, which are really from *The New Chemical Light* by "Michael Sendivogius." It should be noted also that the account of Cagliostro (beginning on page 110) which is taken from *Lives of Alchemistical Philosophers* (1888), is out of date, and requires to be corrected by the findings of more recent research (*vide Cagliostro: The Splendour and Misery of a Master of Magic*, by W. R. H. Trowbridge, 1910; and *Le Maître Inconnu, Cagliostro*, etc., by Dr. Marc Haven, 1912). The book is very well illustrated.

SIJIL ABDUL-ALI.

The Secret Doctrine in Israel: A Study of the Zohar and its Connections. By Arthur Edward Waite. 8 $\frac{3}{4}$ ins. $\times$ 5 $\frac{3}{4}$ ins., pp. xvi + 330. London: William Rider and Son, Ltd., Cathedral House, Paternoster Row, E.C. Price 10s. 6d. net.

THE connection between Alchemy and the Kabbalah is an interesting one, and something concerning it has already been said in previous issues of the JOURNAL. There is evidence, as has already been said, that they each followed their own line of development, not joining hands until comparatively late in the history of Alchemy at least. But, on the other hand, they both sprung from the same root, namely, the Hermetic concept of nature as the symbol of supernature. They may, therefore, both be regarded as embodiments of the same secret doctrine; consequently, the understanding of the one, if not necessary to, is at least useful for, the understanding of the other. It follows, I think, that the present volume will appeal to students of alchemical literature, as well as to those who are professedly concerned with Jewish mysticism. And this is the more especially true because of Mr. Waite's own attitude. From his Preface, I gather that this volume is one of a series aiming at the interpretation of that literature which is regarded as containing secret doctrine, and that the whole work is to be completed in the attempt to decode the literature of Alchemy. There are some other references to Alchemy in the present volume, which will, no doubt, also be noted with interest.

* See Mr. H. S. Redgrove's discussions of this question, "On the Doctrine of the Indestructibility of Matter" (Chapter 1 of his *Matter, Spirit and the Cosmos*, 1910) and "Is Matter Destructible?" (*Knowledge*, vol. xxxv, 1912, pp. 292 *et seq.*)

As concerns the Kabbalah itself, Mr. Waite has already given us one study in his *The Doctrine and Literature of the Kabbalah* (1902). In the present work, he approaches the subject from a different point of view, aiming to reduce the chaos of the *Zohar* into something like order; and he has very successfully attempted an exposition of *Zoharic* teaching from the standpoint of a student of secret doctrine.

It is not possible in the confines of a review to enter upon a discussion of the *minutiae* of Mr. Waite's book, or even to attempt a summary of its contents. But this much must be said, that Mr. Waite demonstrates that the central theme of the secret doctrine in Israel was that of sex. Its holiest mysteries were those of marriage, what it implied below, and what it symbolised above. To the sons of the doctrine, marriage was the door which opened on the road leading to Paradise, and the way itself was that of a life of holiness and fruitfulness, in which the sanctity of sex was preserved by rightful use in the sight of the Lord. Such use, they held, and rightly, I think, to be an acceptable act of worship.

It is of importance to note that Alchemy makes large use of sexual symbolism. Since the metals were regarded as symbolical of man, they were supposed to possess his various attributes; hence we read of metals being "generated" by the action of an active, male principle on a passive, female principle, *etc.* This raises the question of another point of comparison with Kabbalism, and the still further question as to whether, and to what extent, the mystery of sex lies at the heart of other forms of secret doctrine. But this is not the occasion for the discussion of such questions, and I will conclude by saying that those who desire a scholarly and interesting exposition of an abstruse subject (concerning which not a great deal has been written in recent years, and much of that of poor quality) should procure Mr. Waite's *The Secret Doctrine in Israel*. The get-up of the book, in the characteristic manner of Messrs. Rider and Son, is excellent.

EDITOR.

The Quest of the Holy Grail. By Jessie L. Weston. 7½ ins. × 4½ ins., pp. xii + 162. London: G. Bell and Sons, Ltd. Price 2s 6d. net.

THIS is a volume in "The Quest Series" now being published under the editorship of Mr. G. R. S. Mead, B.A. Miss Weston gives a succinct account of the Grail texts and of the various forms of the story itself, and after rather brief discussions of the opposing "Christian" and "Folk-lore" theories of the origin of the Grail legends (in which they are somewhat summarily dismissed), she proceeds to a highly interesting exposition of her own, "Ritual" theory. Miss Weston considers that the Grail legend is a story in veiled

language of an initiation ceremony, such as was practised in the Adonis and kindred cults. The quest of the Grail was the quest of the source of life. The Grail itself was at once a dish or feeding-vessel, a phallic emblem, and a symbol of regeneration and spiritual life. The Grail is also sometimes spoken of as a Stone, and Miss Weston suggests that the quest of Alchemy was essentially the same in object as the quest of the Holy Grail, which quest she speaks of as "a determined effort to attain, on the lower plane, to a definite and personal knowledge of the Secret of Life, on the higher, to that intimate and personal contact with the Divine Source of Life, in which, in the view of the mystics of all ages, is to be found the sole Reality." Miss Weston's book is a further testimony to the facts that the kernel of the secret knowledge of the past was a secret of sex, and that this secret enshrines a very potent and real truth. Her book should assuredly be read by all students of secret traditions. It is to be regretted that she makes no reference to the works and views of Mr. A. E. Waite, so well known in this field.

EDITOR.

PERIODICAL LITERATURE:—The attention of readers of THE JOURNAL OF THE ALCHEMICAL SOCIETY, desiring to keep in touch with modern chemical research, is directed to our valuable contemporary, *The Chemical News*. This journal contains original and abstracted articles on the various departments of chemical research, special prominence being given to theoretical papers dealing with such topics as the Periodic Law and kindred subjects, which are likely to appeal to the readers of this JOURNAL, but which are not usually welcomed by the majority of scientific journals. *The Chemical News* also contains reports of the proceedings of the Chemical and other learned societies, THE ALCHEMICAL SOCIETY sometimes being included. Chemical news from foreign sources, reviews of scientific literatures, and announcements of meetings of the learned societies will also be found in its pages.

EDITOR.

LA SOCIÉTÉ ALCHIMIQUE DE FRANCE.

MEMBERS of THE ALCHEMICAL SOCIETY will no doubt be glad to learn further particulars of the progress made in the *entente cordiale* between *La Société Alchimique de France* and THE ALCHEMICAL SOCIETY.

Prof. John Ferguson and Mr. H. Stanley Redgrove have been created *Membres d'Honneur* of *La Société Alchimique de France*. Mr. Arthur Edward Waite, Mr. W. Gorn Old, Mme. Isabelle de Steiger, Mr. Ralph Shirley, the Ven. Archdeacon J. B. Craven, Sir Richard Stapley, Dr. Elizabeth

Severn, Mr. Sijil Abdul-Ali, Mr. Philip S. Wellby and Miss Clarissa Miles have been created *Membres Titulaires*. M. W. de Kerlor, who has been conducting the negotiations on behalf of the Council of THE ALCHEMICAL SOCIETY, is already a member of *La Société Alchimique de France*.

M. Jollivet Castelot, the President of the French society, has been elected an Honorary Member of THE ALCHEMICAL SOCIETY. Other members of the French society will also shortly be elected to honorary membership of THE ALCHEMICAL SOCIETY.

For the present, members of THE ALCHEMICAL SOCIETY who desire to do so may receive the official publication of *La Société Alchimique de France*, entitled *Les Nouveaux Horizons*, free of charge. Applications for copies, enclosing P.O. value 6d. to cover postage for the current year, should be directed to the Editor of THE JOURNAL OF THE ALCHEMICAL SOCIETY, Mr. H. S. Redgrove, 191, Camden Road, N.W. As the number of copies at the disposal of THE ALCHEMICAL SOCIETY is limited, early application should be made to avoid disappointment. There are also a few complete sets for 1912 and 1913 to be disposed of, which will be supplied to members on the same terms. A specimen copy of *Les Nouveaux Horizons* is forwarded to each member with the current number of the JOURNAL.

THE JOURNAL OF THE ALCHEMICAL SOCIETY

EDITED BY H. STANLEY REDGROVE, B.Sc. (LOND.), F.C.S.

VOL. II. PART 12.

APRIL, 1914.

REPORT OF THE TWELFTH GENERAL MEETING.

THE twelfth General Meeting of THE ALCHEMICAL SOCIETY was held at 8.15 p.m., on Friday, April 17th, at The International Club, Regent Street, S.W. The chair was occupied by Mr. Arthur Edward Waite, one of the Vice-Presidents.

The Chairman announced that the Council had appointed Mr. J. Prag as an Auditor for the current year, in place of Mr. Leonard Pembroke, who found himself unable to undertake the work in connection therewith.

A paper was read by Mr. Philip Sinclair Wellby, entitled "Some Reflections on 'Basil Valentine'", which was followed by a discussion. (The paper and an abstract of the discussion are printed in the present number of the JOURNAL).

A vote of thanks was passed to Mr. Wellby for his paper.

SOME REFLECTIONS ON "BASIL VALENTINE."

By PHILIP SINCLAIR WELLBY, M.A. (Cantab.).

As regards the identity of the adept-philosopher whose works are given to the student under the name of "Basil Valentine," all the information available so far as I know is to be found in Mr. Waite's admirable Preface to the English translation of *The Triumphal Chariot of Antimony*, published in 1893, in which he assigns the author of this work to the end of the 15th and beginning of the 16th centuries. It appears from Migué's *Dictionnaire des Sciences Occultes* that Valentine wrote in High Dutch, and it is questionable whether the originals of his writings remain. He began to be translated into Latin early in the 17th century. As to the value of his works to modern readers, each must appraise them as he is able to receive and comprehend them; but as regards the history of chemistry there is no comparison between *The Triumphal Chariot of Antimony* and the other writings by or attributed to Valentine. *The Practica with Twelve Keys Concerning the Great Stone of the Ancient Sages* is in need of the master-key of the alchemist before their meaning can be manifested; for, in the words of the

author, "although many are engaged in the search after this stone, it is nevertheless found but by very few. For God never intended that it should become generally known. It is rather to be regarded as a gift which he reserves for those favoured few who love the truth, and hate falsehood, who study our art earnestly by day and night, and whose hearts are set upon God with an unfeigned affection." This is indeed the criterion of enlightenment insisted upon by all the mystical alchemists, and affords us at the outset the stimulus to study, as well as the qualified satisfaction that we may be assured that, if we fail in our efforts to find the "Rock which is the foundation stone of truth, the temporal blessing, and the eternal reward," the failure may be confidently ascribed to our own incapacity or unworthiness, and not to the concealments and sophistries of our author. The tract entitled *Azoth, or The Method of Composing the Hidden Gold of The Philosophers*, is curious from a reflective and exhortatory point of view. In Mr. Waite's opinion a process of reading in would be required to connect it with mystical alchemy. It is not included in the great collection of Mangetus, who probably regarded it as spurious, along with other writings ascribed to Valentine; nor is even *The Triumphal Chariot* included in this collection.

In opening the pages of *The Triumphal Chariot of Antimony*, I wish to-night to offer some such reflexions as may probably be common to all who have come under the spell of the Hermetic Doctrine as set forth in the writings of the Masters of Alchemy, in however casual or intermittent a manner. Firstly, I would dwell shortly upon the literary excellence of these writings, the compelling dignity, the inspiring fervour that informs them, and the eloquence with which their thesis and arguments are set forth. I do not know if the experience of my audience is at one with mine in this particular, but for my own part I know of no branch of literature, not excluding the sacred Scriptures, either of the East or West, that exercises a more potent fascination on the reader than the works of the ancient alchemists; and in saying this a testimony is of course implied to the skill and spirit of the translators. If we examine but one treatise, as for example *The Triumphal Chariot of Antimony* by the author under consideration, it will be sufficient. Turn then to the initial dedication: at once a note is sounded that lifts the thoughts into a region of high endeavour and attainment, and dispels trivial and distracting ideas of mercenary or material benefit:—"To The Illustrious, Venerable, Saintly and Blessed Men, Adepts of the True Philosophy, Lovers of Virtue, Lords of Fortune, Despisers of the World, Whose Life is Holiness in Holiness, Knowledge in Knowledge, and whose Work consists in The Relieving of The Sick and

Poor." Thus the Herald invites us to approach the Palace of the King, and forewarns us of the company assembled therein. Then, his audience being mustered and attentive to the words that he shall utter, our author at the outset, in controlled and measured language, explains his object as being pursued "not only for the honour and glory of The Divine Majesty, but also in order that men may render to God implicit obedience in all things," and he enumerates lucidly and succinctly the five principle heads which must be diligently considered "as much by all who are in possession of the wisdom of philosophy as by all who aspire after that wisdom which is attained in our art, in order that the careful and studious operator may be enabled to perform our magistry in the right way." Here then is a thing which is attainable, and a guide to the attainment, an inducement to diligence and perseverance, emphasised in the following pages in such convincing terms that the reader insensibly responds to the challenge, and braces his faculties to the reception of instruction and the prosecution of the discovery. Anyone familiar with alchemical literature could furnish a dozen similar illustrations of the skill displayed by the alchemist in entrancing the reader by the opening paragraphs of his treatise, and enkindling the fire of enthusiasm with which he himself is aglow. Not less notable are the frequent rhapsodies of praise and acclamation that are found throughout these writings, wherein the artist pours forth his joyous gratitude to the source of the mastery he has acquired and the benefactions he enjoys. "Whoever," writes our author (at the end of the 'Tenth Key' in *The Practica*), "gains possession of this Stone, should let this whole life be an expression of his gratitude towards God in practical kindness towards his suffering brethren, that after obtaining God's greatest earthly gift, he may hereafter inherit eternal life. Praise be unto God everlastingly, for this, His inestimable gift."

These introductions and interludes, as it seems to me, furnish us with two truths which I find confirmed entirely to my own satisfaction; *viz.*, (i.) That the art of transmutation is primarily a spiritual process, whatever material operations are rendered thereafter possible and practicable, and (ii.) That "Basil Valentine" and others of the great masters of Alchemy did actually attain to the discovery and perfection of the Philosopher's Stone, and, in so far as they were able and permitted so to do, endeavoured to assist their fellow-brethren to attain thereto in like manner. In the present day I believe the way of attainment is perhaps even less concealed and more clearly indicated than it was some few centuries ago. There appears to be a noticeable quickening of appreciation of the possibility of achieving that state of illumina-

tion which may be described as "cosmic consciousness." A definition of the character of this state has been given by our colleague, Mr. Walter Gorn Old, as follows:—"There is a consciousness attributable to every cell in the body which is usually referred to as cell-consciousness. The aggregate of these particular centres does not constitute a physical consciousness in itself, but is referred to a co-ordinating centre within the brain, probably the pineal gland, in which resides the synthesis of all sensory impressions. Hence results what may be called personal consciousness. Similarly, we may regard the Solar System as centring its consciousness in the sun to which it gravitates, and if we extend this to include the whole telescopic universe, we may by analogy posit a universal gravitating centre, which, if vital, must also be conscious. For it appears we cannot disengage our thought from a co-ordinate Trilogy of Life, Substance and Consciousness. Now, inasmuch as man is compounded of cosmic elements, it needs only that these be brought into a certain responsiveness and relationship to the cosmic order of things for him to attain what is referred to as Cosmic Consciousness" [*private communication*].

In this state the mysteries that are hidden from the natural man may be apprehended by the extended and enlightened faculties of the spiritual man; and this possibility is outlined not less by the mystic than by the man of science. But in either case it is still not for the many, but the few to achieve, the few who will deliberately, resolutely, and unremittently devote their energies of will, thought, and desire to the one end, and, putting all else aside, set their faces towards the light that shineth continually from the sanctuaries of Wisdom and Knowledge.

From the mystic standpoint I will quote at length from an article on *The Hermetic and Rosicrucian Mystery*, written by our present chairman, Mr. Arthur Edward Waite, which appeared in *The Occult Review* for October, 1908, (vol. viii, pp. 207 *et seq.*). It will gain nothing by any comment of mine by way of introduction.

"For ourselves, at least, we can lay down one irrevocable law—that he who has resolved, setting all things else aside, to enter the path of adeptship, must look for his progress in proportion as he pursues holiness for its own sake and not for the miracles of sanctity. . . One of the lesser masters, who has now scarcely a pupil amongst us, said once, quoting from somewhere: '*Vel sanctum invenit, vel sanctum facit*' . . . We have agreed long ago that to work up from Nature to Grace is not really the method of the wise, because that which is below is the branches, and that which is above is the roots, and the tree of life is really in this sense, and because of our distance from the centre, as it were upside down. So also

the true way of experience in the mystic life is to work outward from within. . . . Perhaps an illustration will explain better the order of procedure than a formal statement merely, though I do not think that there is even a surface difficulty concerning it. We have been taught in infancy of the mind the great story which is the root and heart of external Christianity. That is not the letter which kills but the cortex of a vessel behind which are the eternal fountains of life. I need not say that many of us do not get beyond this cortex and fortunately, it is not a dead husk, but a living body through which Grace flows to us after the measure of our capacity. . . .

"It must be understood and accepted that all alchemists . . . were actuated by an express determination to veil their mystery, and then they had recourse for this purpose to every kind of subterfuge. At the same time they tell us that the whole art is contained, manifested and set forth by means of a single vessel, which, amidst all manner of minor variations is described with essential uniformity throughout the great multitude of texts. This statement constitutes a certain lesser key to the art; but as on the one hand the alchemists veil their hallow-in-chief by reference, in spite of their assurance, as above noted, to many pretended vessels, so has the key itself a certain aspect of subterfuge, since the alleged unity is in respect only of the term final of the process in the unity of the recipient. This unity is the last reduction of a triad, because, according to these aspects of Hermetic philosophy, man in the course of his attainment is at first *three*—that is when he sets out upon the great quest; he is *two* at a certain stage; but he is, in fine, *one*, which is the end of his evolution. The black state of the matter on which the process of the art is engaged is the body of this death, from which the adepts have asked to be detached. It is more especially our natural life. The white state of the stone, the confection of which is desired, is the vesture of immortality with which the epopts are clothed upon. The salt of the philosophers is that savour of life without which the material earth can neither be salted nor cleansed. The sulphur of the philosophers is the inward substance by which some souls are saved, yet so as by fire. The mercury of the sages is that which must be fixed and volatilized—naturally it is fluidic and wandering—but except under this name, or by some analogous substitute, it must not be described literally outside the particular circles of secret knowledge. . . .

"The process of the art is without haste or violence by the mediation of a graduated fire, and the seat of this fire is in the soul. It is a mystery of the soul's love, and for this reason she is called the 'undaunted daughter of desire.' The sense of the gradation is that *love is set free from the*

impetuosity and violence of passion and has become a constant and incorruptible flame. The formula of this is that the place of unity is a centre wherein there is no exaggeration.

"That which the fire consumes is certain materials or elements, which are called 'recrementa,' the grosser parts, the superfluities; and it should be observed that there are two purgations, of which the first is the gross and the second the subtle. The first is the common process of conversion, by which there is such a separation of seemingly external components, that what remains is as a new creature, and may be said to be reborn. The second is the exalted conversion, by which that which has been purified is so raised that it enters into a new region, or a certain heaven comes down and abides therein. . . .

"The gross metal which is placed within the vessel is the untransmuted life of reason, motive, concupiscence, self-interest and all that which constitutes the intelligent creature on the normal plane of manifestation. Hereof is the natural man enclosed in an animal body, as the metal is placed in the vessel, and from this point of view the alchemist is he who is sometimes termed arrogantly the 'super-man.' But because there is only one vessel it must be understood that herein the stone is confectioned and the base metal is converted. The alchemist is himself finally the stone, and because many zealous aspirants to the art have not understood this they have failed in the great work on the spiritual side. The schedule which now follows may elucidate this hard subject somewhat more fully and plainly :

"There are—

- (a) The natural, external man, whose equivalent is the one vessel;
- (b) The body of desire which answers to gross matter;
- (c) The aspiration, the consciousness the will of the supernatural life.
- (d) The process of the will working on the body of desire within the outward vessel.
- (e) The psychic and transcendental conversion thus effected.
- (f) The re-action of the purified body of desire on the essential will, so that the one supports the other, while the latter is borne upward, and from such raising there follows this further change, that the spirit of a man puts on itself a new quality of life, becoming an instrument which is at once feeding and itself is fed.
- (g) Herein is the symbol of the stone and the great elixir.
- (h) The spirit is nourished from above by the analogies of the Eucharistic ministry.
- (i) The spirit nourishes the soul, as by bread and wine.
- (j) The soul affects the higher conversion in the body of desire.

(k) It thus comes about that the essence which dissolves everything and changes everything is still contained in a vessel, or—alternatively—that God abides in man."

This, I take it, is the consummation of the celestial stone, or in Christian terms, the union with Christ, "the heavenly Corner Stone in whom all nature lives and moves and has its being. For the Earthly Stone is a gift from God, descending (as we read in *The Sophic Hydrolith*) by the clemency of the Celestial Stone."

In further elucidation of alchemical symbolism, I would quote also from another writer of to-day, namely Florence Farr, who in her *The Rosicrucians and Alchemists*, published in the *Occult Review* for May, 1908, (vol. vii, pp. 259 *et seq.*), writes:—

"It is true in a sense that this treasure of all sages, this knowledge of Being which all mystics seek, forms itself vehicles in time and space in which it carries out the imaginations which spring from the relative side of absolute consciousness, and it is interesting to trace the different degrees of attainment.

"Alchemical symbolism is mainly the symbolism of distillation. To take a simple process, let us imagine that we desire to obtain the white and the red tinctures from honey. The alchemist would put the honey in the cucurbit of an alembic. Placing it over a gentle heat he would drive the essential part of the spirit into the head or beak of the alembic, whence it would pass as steam into the neck of the receiver and become liquid once more as it cooled. This liquid was the white tincture, or spirit of honey mixed with water. This is the symbol of that concentration and meditation whereby the mind of man becomes subtilized and fit to perceive philosophical impressions. The white tincture is the symbol of light and wisdom.

"But to obtain the red tincture of power a far more complicated process had to be performed. It consisted mainly of pouring back the distilled spirit upon the black dead-head that had been left as residue in the cucurbit and by the exercise of great care and the addition of certain matters acting upon the mixture in such a way that finally the whole of the original matter was distilled and no black dead-head remained, and a wonderful red tincture was the result of the transmutation of the black nature.

"... Now consciousness of Being is the name we give to the white tincture which the adept distils from his human form in the alembic of the mind. It is brought about by the fire of imagined emotion and devotion under the stress of intense concentration. To focus thought has the same effect as to focus sunlight. It becomes a force analogous to heat. It is, in a word, emotion evoked by the skill of the sage. In this fire the Adept raises his consciousness until

it is separate from the gross body, and no longer aware of the objective world. Passing through the gate of dreams it enters the subjective world and lives in its own brightness. Here it learns that it can create infinite visions and glories, and here the saints rejoice, each in his own heaven. Here finally the sage perceives his own divinity and is united to his God. This is the white initiation in the eyes of the Rosicrucian doctors, and according to the scriptures of the alchemists the sage has gained the white tincture. The objective world only remains in his consciousness as blackness and ignorance and death. In his divine nature he seeks to redeem the dark world, to draw it up into the divine nature and make it perfect."

In conclusion, to illustrate the manner in which the scientific mind approaches the problem of spiritual Alchemy, I will draw your attention to a few extracts from three closely-reasoned and ably illustrated papers written by our Acting President, Mr. H. Stanley Redgrove, which, as I read them, present an aspect of the transmutability of matter resultant from its dependence on and modification by spirit. These papers in their final form will be found in Mr. Redgrove's *Matter, Spirit and the Cosmos*, published in 1910.

"It seems generally to be taken for granted that whereas we have absolute and direct evidence for the existence of matter, the existence of spirit is rather a point for inference or belief; in fact, however, the reverse would be somewhat nearer the truth.

"The evidence for the existence of matter amounts to this:—We are aware of sensations (*i.e.*, certain modifications in states of consciousness), and for certain reasons—of which the chief is that, whereas the images of the imagination are almost perfectly under our control, *i.e.*, we can cause a mental image to vary at pleasure or even to disappear by mere volition, sensations are only slightly (relatively speaking) under our control,—we conclude that sensations are due to an external world, putting forward the hypothesis of matter—'permanent possibility of sensation'—in explanation. We do not know matter in itself, what we do know and experience are changes in states of consciousness.

"Consequently, we infer from sensation the existence of our own body with the rest of the external world. Here is the crux of the matter—I infer the existence of my material body, but I know I exist. Introspection at once reveals the fact that I am not my body, otherwise the above process would be impossible. Then what am I? Clearly, therefore, a general term for the ego is required; such a term is spirit." [pp. 57 and 58.]

"It may be, indeed, difficult to explain matter and spirit in terms of one substance; still, notwithstanding, it has been felt that this must be possible. To solve the riddle

of the universe in terms of two or more self-existent beings does not satisfy the human mind, and appears to be no solution. We can rest satisfied only with Unity. Consequently, we postulate the essential oneness of the self-existent, and term such Being, True and Absolute Substance, or more simply, God; and using the term 'God' with this wide and perfectly accurate meaning, namely, that of Self-existent Being, we can state, without fear of contradiction, that *everyone* believes in God. . . ."

"Is God conscious or unconscious? Is it necessary to ask this question—can consciousness be derived from and find its explanation in that which is unconscious? It is matter which is the mystery to be explained, not consciousness. An intelligible explanation of the Cosmos must be expressed in terms of the immediately known—consciousness or spirit; the attempt to explain the Cosmos in terms of matter must necessarily result in unintelligibility. Our object must be to seek a solution in consciousness, in terms, say, of Will or Love. God must be not only conscious, but conscious in the highest degree, hence self-conscious. He must Know and Will and Love. He must be the Absolute Infinite. And this because He is the origin and explanation of the totality of being.

"The very meaning of the term Absolute Infinite demands that God must be in all space and time and must transcend all space and time, for otherwise the Absolute would be limited by space and time—in the one case, were God merely transcendent, excluded without these limits; in the other case, were God merely immanent, included within. This being so, it would be more correct to speak of all space and time as being in God.

"It has been argued that an immanent God could not be a Personality, and by this term Personality we mean a self-conscious being—a being who knows and loves and wills. But from experience we should conclude precisely the opposite. For are we not ourselves personalities, and are we not immanent in our physical bodies (though in a less true and absolute sense than that in which God is immanent in the physical universe)? Our immanence is clearly demonstrated by the fact that the unreflective man usually identifies himself with his body (indeed, most of us are guilty of this in unreflective moments), just as the pantheist identifies God with Nature. Our transcendence is clearly shown by the fact that reflection indisputably demonstrates the difference between the ego—the true self—and the physical body. . . .

"In this connection the ancient mystic doctrine that each man is a replica in small of the whole universe is interesting. For if man can be regarded as the microcosm, the universe as the macrocosm, then, changing the figure, we might speak of the universe as the Grand Man; and the Soul of this

Man—the Real Man, of which the physical universe is the manifestation—is God.

"We see, therefore, that in their affirmative aspects, both the pantheistic and transcendental views of God are valid, but they need to be combined one with the other if we would at all realize the truth." [pp. 85, 88, 89, 92 and 93.]

" . . . Speaking not with regard to time but with regard to the ontological sequence, God first creates spirit, and thereby creates matter. Both matter and spirit are true and real, but on different planes of being, of which the spiritual is the higher. They are discrete—that is to say, spirit is not a very fine matter, nor matter a very gross spirit, but they are related as cause is to effect. This is a point which must be insisted upon, namely, that cause and effect are quite distinct and discrete; that, although they correspond, they do not merge one into the other. To take our illustration of the electronic theory again—the electron, according to this view, is the cause of the atom, but atom and electron are quite distinct and discrete, it is not a question of mere size—the atom of hydrogen is not a big electron, nor the electron a little atom of hydrogen; they have quite different properties.

"If we prefer the language of psychology to that of physics—though this is to a great extent merely a verbal distinction; still psychology being a science of spirit rather than of matter, and, spirit being the higher plane, psychology will, perhaps, yield the better mode of expression—we may quite correctly speak of the physical universe as an idea in the mind of God, but this does not mean that it is in any sense unreal—to be an idea in the Divine Mind is the essence of reality; nought else is truly real save that which is such. And it is because spirit is what it is, because of our likeness (faint though it may be) to God, that this real physical universe is possible to some extent to us as an ideal construction corresponding to the Divine ideal construction. The 'external' world we know is the world as it exists in each of our minds; the real 'external' world is the world as it exists in the Divine Mind; in so far, then, as our ideal constructions are like to the Divine do we know Reality." [pp. 102 to 104.]

May we not then assume that a man having gained by a process of study, concentration, and illumination, such a knowledge of the "real" external world and its constitution, and the power that is co-existent with knowledge, could indeed mould matter in some such way as is indicated by the transmutation of metals?

To sum up these extracts and reflections, I return to *The Tract of Basilus Valentinus, The Benedictine, Concerning The Great Stone of The Ancient Sages* for the grand recipe [*The Hermetic Museum*, vol. 1, pp. 349 *et seq.*]:—"Cause that which is above to be below; that which is visible to be

invisible; and that which is palpable to become impalpable. Again let that which is below become that which is above, let the invisible become visible, and the impalpable, palpable. Here you see the perfection of our Art without any defect or diminution. But that in which Death and Life, Destruction and Resurrection dwell, is a round sphere with which the Goddess of Fortune drives her chariot, and imparts the gift of wisdom to men of God. Its proper name here upon earth, and for human understanding is 'All-in-All.'

"Let him who would know what this 'All-in-All' is give the earth great wings, and make it fly upward through the air to the heavenly regions. Then singe its wings with fierce heat, and make it fall into the Red Sea, and there be drowned. Then dry up the water with fire and air till the earth reappears, and you will have the 'All-in-All.'

"If you cannot find it in this way look around upon the things that are in the world. Then you will find the 'All-in-All,' which is the attracting force of all metals and minerals derived from salt and sulphur, and twice born of Mercury. More I may not say about 'All-in-All,' since all is comprehended in all.

"My friends, blessed are ye, if by listening to the words of the wise, we can find this great Stone, which has power to cure leprous and imperfect metallic bodies and to regenerate them; to preserve men in health, and procure for them a long life—as it has hitherto kept the vital fire burning within me so long that I am weary of life, and yearn to die.

"For His Wisdom and Mercy, and for the gracious Gift which He has bestowed upon me so long ago, I am bound to render God thanks, now and evermore.—Amen."

ABSTRACT OF DISCUSSION.

MR. H. STANLEY REDGROVE said that Mr. Wellby had given an account of mystical alchemy in very eloquent language. The speaker was, for the main part, in agreement with the lecturer's philosophical views, and he believed that spiritual Alchemy dealt with possible processes. But he differed from the lecturer on one point, and that was of fundamental importance, for he did not believe that the alchemists (with a few possible exceptions) were concerned with such processes *per se*. He held that it was possible to extract from the literature of Alchemy doctrines concerning the regeneration and spiritual perfection of man, because this literature had been written by means of the reverse process of interpretation. The alchemists did not, he thought, conceal spiritual or theological teachings under terms of chemistry; but attempted to explain what facts of chemistry they knew, and to speculate about chemical possibilities, by the aid of doc-

trines drawn by the aid of analogy from the domains of mystical theology. As concerned the famous *Triumphal Chariot* of "Basil Valentine": this consisted mainly of practical recipes for preparing compounds of antimony—recipes which chemists could actually carry out. The late Prof. Schorlemmer had fixed its date at about 1600. The author, whoever he was, had obviously collected all available information on this subject, and experimented for himself; but, if Schorlemmer was right, he was not the discoverer of these preparations, with which he was at one time credited owing to the back-dating of the book.

Mr. SIJU ABDUL-ALI said that the lecturer had appeared to indicate, towards the beginning of his discourse, that in his opinion Alchemy was concerned primarily with the soul of man and its regeneration, but that the alchemists also dealt successfully with the transmutation of metals. Mr. Redgrove, on the other hand, had put forward the view that the alchemical doctrines had been imported directly from what he termed "mystical theology," and adapted, on the principle of analogy, to the processes, as then understood, of metallurgy and chemistry. The speaker, however, was of the opinion that neither of these theories was adequate to explain the existence and influence of Alchemy. He thought that, in the mind of the alchemist at least, there was something more than analogy between metallic and psychic transformations, and that the whole subject might well be assigned to the doctrinal category of ineffable and transcendent Oneness. This Oneness comprehended all—soul and body, spirit and matter, mystic visions and waking life—and the sharp metaphysical distinction between the mental and the non-mental realms, so prominent during the history of philosophy, was not regarded by these early investigators in the sphere of nature. There was the sentiment, perhaps only dimly experienced, that not only the law, but the substance of the Universe, was one; that mind was everywhere in contact with its own kindred; and that metallic transmutation would, somehow, so to speak, signalize and seal a hidden transmutation of the soul. He did not know to what extent his remarks would be endorsed by more competent scholars, but in the meantime he would be interested to learn on precisely what evidence the lecturer based his belief that the transmutation of metals had been effected.

THE CHAIRMAN said that, as he had expected, discussion had arisen on a very debatable phase of the subject of Alchemy. Mr. Redgrove had put forward a view already associated with his name. It was the view that he had expressed in the first paper read at the meetings of the Society; and on the next occasion the present speaker had tried to show the sense in which he differed from it. Mr. Wellby's hypothesis, on the other hand, was in analogy with one

which had been taken by a few speculative thinkers of the "Theosophical" circle, namely, that if a person attained a condition of adeptship—that is, of sanctity and sainthood—he would gain power over material things and could at will transmute metals. It followed from the Christian mystical theory of Alchemy—according to which spiritual philosophers veiled in the terms of metallic transmutation a great experiment which was possible in the soul of man—that in the high stages of experience what is called the logical understanding was transcended, so that on returning to the normal mental state, the experience which had been attained was only very imperfectly represented by anything that could be said on the subject. It was, however, a purely spiritual process and was curious as such to contrast with the alternative on the physical side which postulated spiritual qualifications on the part of the successful operator, though the work was in the metallic kingdom. It was, he thought, this fact, among other things, which had led some modern students to conclude that few or none of the old writers using metallurgical terms were dealing with metallic or chemical questions; and although there was evidence that a number of alchemists had contributed much to chemical science, it must be admitted that their recipes for effecting transmutation were impossible to follow in a chemical sense. But certainly anyone who read *The Triumphal Chariot* must carry away the impression most clearly that it was a book of chemical recipes—except perhaps the Epilogue, where the author, seemingly rather overcome by the subject, treated of antimony in its universal aspect, and as the Stone of the Wise. As concerned the other works attributed to "Valentine"; the treatise on *Natural and Supernatural Things* undoubtedly contributed nothing to chemistry, nor yet anything to the spiritual understanding of things. He thought, so far as he had been able to follow them, that *The Twelve Keys* might possibly belong to either class, but there was little chance of decoding them satisfactorily at the present time. On the surface, at least, they were physical.

He was, he said, much interested in the remarks of Mr. Abdul-Ali. They offered food for thought, and suggested a third explanation. According to this, it was not exactly a question of analogy between a process in one kingdom and a parallel process in another, since, on this hypothesis, the process was one, the matter one, and the result one.

Mr. P. S. WELLBY, in replying, said, with reference to the remarks of Mr. Redgrove, that so far as the testimony of science endorsed the utility of the chemical formulæ found in the pages of *The Triumphal Chariot of Antimony*, this was certainly a matter of satisfaction to the student; but as regards the other propositions submitted by Mr. Redgrove he would be sorry to have to accept the suggestion that

"Basil Valentine" was rogue enough to palm off the results of another's labour as his own. He added further, (in answer to the main point raised,) that the language of mystical theology seemed to be hardly so suitable to the exposition or concealment of chemical theories, as the language of a definite and generally credited branch of science was suited to the expression of a veiled and symbolical process such as the regeneration of man.

Concerning the question asked by Mr. Abdul-Ali, the speaker said he would refer him to Mr. Waite's work, *Lives of Alchemistical Philosophers* (1888), for the historical evidence of the transmutation of metals into gold. This evidence, however, might not be considered as conclusive, and, indeed, such evidence as could be adduced in this respect was similar in character to the statement of individual experience made by St. Paul when he speaks of "visions and revelations of the Lord," and how, being caught up to the third heaven he "heard unspeakable things which it is not lawful for a man to utter"; (II. Cor. xii. 1-5.) or to the recorded experiences of Eastern Yogi of the present day. Such evidence was not easily acceptable to the logical understanding, and in this fact lay the inherent difficulty of presenting what is usually termed "reliable evidence" of supra-physical phenomena. But to some minds in sympathy with the mentality of an individual making a statement of this kind, such evidence might seem sufficient and convincing.

REVIEWS.

Alchemy: Ancient and Modern. Being a brief Account of the Alchemistic Doctrines, and their Relations, to Mysticism on the one hand, and to recent Discoveries in Physical Science on the other hand; together with some Particulars regarding the Lives and Teachings of the most noted Alchemists. By H. Stanley Redgrove, B.Sc. (Lond.), F.C.S. 8½ ins. × 5½ ins., pp. 14+141+16 plates. (American Edition.) Philadelphia: David McKay, 604-608, South Washington Square.

AMERICAN readers will be glad to learn that this well-known and indispensable work is now published in the United States by Mr. David McKay, of 604-8, South Washington Square, Philadelphia. In this study of the lives of the alchemists, their ideas, and these latter in their relation to modern chemistry, Mr. Redgrove has a fascinating story to tell, and he tells it well. Indeed, his knowledge, as shown in his book, admirably fits him to the task; not only has he a comprehensive knowledge of chemical and physical science, but also, what is still more rare, a sane outlook on, and sympathy with, the mysticism of the Middle Ages.

Mr. Redgrove's theory of the origin of Alchemy, is, "that it had its origin in the attempt to apply, in a certain manner, the principles of mysticism to the things of the physical plane." In recent years, several theories as to the origin of Alchemy have been suggested, but that of Mr. Redgrove seems best to explain many statements and theories of the alchemists otherwise unintelligible.

Early in his book, Mr. Redgrove quotes the famous alchemistic axiom, "What is above is as that which is below, and what is below is as that which is above," and points out that this tersely expresses the basic idea of Alchemy. To the alchemists the word "Cosmos" was no vain term, but expressed a veritable reality. Hence they reasoned that starting with the postulate of two planes of existence it logically followed that the same laws operated in each. The alchemists regarded the metals as the ultimated expression of various spiritual qualities in men, and they therefore believed the metals not to be fixed but transmutable. In the latter portion of the book, where Mr. Redgrove deals with what he is pleased to call "Modern Alchemy,"—an excellent summary of modern theories in regard to radioactivity—he accentuates the fact that in the near future the transmutation of the elements will be no idle dream.

On p. 44, Mr. Redgrove's suggestion that the sulphur-mercury theory is perhaps to some extent due to the Arabian alchemists does not seem sufficiently definite.

The second portion of the book is almost invaluable to the lay student. Not only have pains been taken that there shall be no misstatements, but also discretion has been shown in pointing out when certain hypotheses are not acceptable to all chemists.

There is an interesting note on p. 95 where it is stated that "If by the term phlogiston we were to understand energy and not some form of matter, most of the statements of the phlogistics would be true as far as they go." This is a fact often overlooked by modern chemists.

Mr. Redgrove's definition of valency on p. 101 is unusually clear and satisfactory. With reference to the experiments of Sir W. Ramsay and Mr. Cameron on the action of the radium emanation on solutions of copper and lead salts resulting in the supposed detection of argon, and similar experiments: the question of the reliability of spectroscopic evidence still, I think, remains.

The very suggestive argument of Professor Howe in relation to transmutation is given on pp. 137-8 and well deserves the mention it receives.

In his conclusion, Mr. Redgrove states that "he has shown that modern science indicates the essential truth of the alchemistic doctrine"; and there are many workers in science who will agree with him.

The book contains sixteen excellent full-page illustrations.

B. RALPH ROWBOTTOM.

The Mediæval Mind: a History of the Development of Thought and Emotion in the Middle Ages. By Henry Osborn Taylor, Litt. D. Second Edition. 2 vols. 8 $\frac{3}{4}$ ins. x 5 $\frac{1}{2}$ ins., pp. xvii + 603 + viii + 620. London: Macmillan and Co., Ltd., St. Martin's Street, W.C. Price 21s. net.

THIS work was first published in 1911, when I had the pleasure of reviewing it in *The Occult Review* (August, 1911, vol. xiv, pp. 97 *et seq.* "Mysticism and Monasticism"). I there called attention to its general excellence and the high degree of literary excellence and sympathetic knowledge of his subject displayed by the author, at the same time offering some criticisms of his treatment of mediæval, erotic mysticism. It is no matter of surprise that a second edition of the work has been called for. I know of no book which gives its readers so deep and comprehensive an insight into the spirit of mediæval thought and culture. And if there is one proposition which may be made about Alchemy without debate, it is that, if we would understand it aright, we must enter into the spirit of the period in which it thrived—that period being the Middle Ages. It is this initiation which Dr. Taylor's book gives its readers. He does not make the at one time common mistake of supposing that mediæval thought was exclusively scholastic, but treats at length of the mystic strain, assigning it its true place—and that no lowly one—in the fabric of mediæval thought. Readers of this JOURNAL will no doubt turn with especial interest to the section of *The Mediæval Mind* which deals with "Symbolism"; the excellent chapter on "Roger Bacon" will also claim their particular attention. Dr. Taylor recognises both Bacon's greatness and Bacon's faults. In a sense, Bacon was in advance of his time, and yet he was bound by current ideas which served to circumscribe and distort his work. It is of interest to compare Dr. Taylor's estimate of Bacon with that of Mr. B. Ralph Rowbottom, published in the preceding issue of this JOURNAL.

In conclusion, I should like to say a word to the Publishers concerning the binding of the book. The chief property of the cloth seems to be the ease with which it may be damaged. This, no doubt, is a minor matter; but I do think that a book of the excellence of Dr. Taylor's should be bound in a style corresponding to its contents.

EDITOR.

THE JOURNAL OF THE ALCHEMICAL SOCIETY

EDITED BY H. STANLEY REDGROVE, B.Sc. (LOND.), F.C.S.

VOL. II. PART 13.

MAY, 1914.

REPORT OF THIRTEENTH GENERAL MEETING.

THE thirteenth General Meeting of THE ALCHEMICAL SOCIETY was held at 8.15 p.m., on Friday, May 8th, at The International Club, Regent Street, S.W. The chair was occupied by the Honorary President, Professor John Ferguson, LL.D., etc.

The Secretary announced that Mrs. Gaston De Mengel, Miss A. K. French, and Mr. Cyril W. Redgrove had been elected to membership of the Society.

A lecture was delivered by Dr. Elizabeth Severn on "Some Mystical Aspects of Alchemy," which was followed by a discussion. (The paper and an abstract of the discussion are printed in the present number of the Journal.)

A vote of thanks was passed to Dr. Severn for her paper.

REPORT OF SECOND ANNUAL MEETING.

THE second Annual Meeting of THE ALCHEMICAL SOCIETY was held immediately following the above-reported meeting, after the retirement of visitors. The chair was occupied by the Acting President, Mr. H. Stanley Redgrove, B.Sc., F.C.S.

The Reports of the Honorary Secretary and Honorary Treasurer were read and adopted.

The Chairman announced that in accordance with the Constitution and Rules of the Society, all the Officers resigned. They were eligible for re-election, and all of their names had been proposed and seconded for this purpose, with the addition of Lt.-Col. Jasper Gibson as an Honorary Vice-President. Two Ordinary Members of Council had to retire, and were not eligible for re-election as such. The retiring Ordinary Members of Council were Lt.-Col. Jasper Gibson and Mr. Gaston De Mengel. Mrs. Hinton and Mr. Jacob Prag had been proposed and seconded for election in their places. Messrs. B. Ralph Rowbottom and Fred Higgs had been nominated for election as auditors for the coming Session.

A ballot was held and the following were declared duly elected:—

Honorary President: Professor John Ferguson, LL.D., etc.

Acting President: Mr. H. Stanley Redgrove, B.Sc., F.C.S.

Honorary Vice-Presidents: Mr. Arthur Edward Waite, Mr. W. G. Old, Mme. Isabelle de Steiger, Mr. Ralph Shirley, Ven. J. B. Craven, D.D., Sir Richard Stapley, Dr. Elizabeth Severn, Lt.-Col. Jasper Gibson, V.D., LL.B.

Honorary Secretary: Mr. Sijil Abdul-Ali.

Honorary Treasurer: Mr. Philip S. Wellby, M.A.

New Ordinary Members of Council: Mrs. Hinton, Mr. Jacob Prag.

Auditors: Mr. B. Ralph Rowbottom, Mr. Fred Higgs.

The Chairman informed the meeting that the Council had decided that a second Dinner should be held this year, particulars of which would appear in the JOURNAL [see p. 3 of cover]. It was hoped that this would meet with the hearty support of members.

The Chairman also drew attention to the fact, already announced in the JOURNAL, that members would be supplied with *Les Nouveaux Horizons*, the official publication of *La Société Alchemique de France*, free of all cost, save postage (6d. *per annum*).

A hearty vote of thanks to Professor Ferguson for presiding at the previous meeting and for continuing to act as Honorary President was carried by acclamation.

REPORT OF THE HONORARY SECRETARY.

I AM pleased to be able to report that during the past year our Society has enjoyed a full session of activity, during which the following papers have been read and discussed:—

Professor JOHN FERGUSON, M.A., LL.D., etc.: *Some English Alchemical Books.*

Mme. ISABELLE DE STEIGER: *The Hermetic Mystery.*

Professor HERBERT CHATLEY, B.Sc.: *Alchemy in China.*

ARTHUR EDWARD WAITE: *Kabalistic Alchemy.*

SIJIL ABDUL-ALI: *Some Notes on the Doctrine of the First Matter, with special Reference to the Works of Thomas Vaughan.*

B. RALPH ROWBOTTOM: *Roger Bacon.*

PHILLIP S. WELLBY, M.A.: *Some Reflections on "Basil Valentine."*

ELIZABETH SEVERN, Ph.D.: *Some Mystical Aspects of Alchemy.*

Reports of all or most of the meetings have appeared in *The Westminster Gazette*, *Knowledge*, and *The English Mechanic*, and occasional reports have also been published by *The Athenæum*, *The Chemical News*, and *Nature*.

The first Annual Dinner of the Society was held in June last, to the gratification of those members who were present, and a *Conversazione* was held in December, after the reading of Prof. Chatley's paper.

The monthly issues of the JOURNAL of the Society—which have appeared with commendable regularity, in view of the several difficulties under which our valued Editor, Mr. Redgrove, has been forced to labour—have contained full reports

of the papers and abstracts of the ensuing discussions, together with reviews of contemporary literature bearing upon the subject of Alchemy. The JOURNAL has already found its way into such distant lands as China, India, Australia, America, etc.

Our membership has increased, although not sufficiently to remove the somewhat disabling restrictions which at present are necessarily imposed upon our finance; and it is therefore to be hoped that all members will use their influence in making known the existence and objects of the Society.

M. de Kerlor has very kindly offered us the use of his lecture room at the Occult Club, 1, Piccadilly Place, W., free of charge until we are in a position to pay for suitable premises of our own. The Council have decided to accept this offer, and on behalf of the Society wish to express to M. de Kerlor their best thanks.

An *entente cordiale* has recently been established with *La Société Alchimique de France*, particulars of which have already appeared in the JOURNAL. In this respect also our Society is indebted to M. de Kerlor, for conducting the negotiations; and we are looking forward to a lecture from him, at an early date next Session, on the experimental researches of M. Jollivet Castelot, the President of the French Society.

We have, I think, good reason to be pleased with the work of the Session which ends this evening, and to entertain some assurance of increasing prosperity in the future.

SIJIL ABDUL-ALI,

HONORARY SECRETARY.

REPORT OF THE HONORARY TREASURER.

GENERAL ACCOUNT OF THE ALCHEMICAL SOCIETY

TO MAY 8TH., 1914.

RECEIPTS.	£	s.	d.	EXPENDITURE.	£	s.	d.
Balance brought forward...	7	10	8	Hire of Room, and Refreshments	2	0	0
Subscriptions	25	14	6	Paper for Journal	2	0	0
Sale of Journal, less Publisher's Commission	7	8	10	Printing Account:—			
Sale of Cases and Binding of Journal	1	6	9	Journal, 2 issues at £2 15s.,			
Printing paid for by Prof. Ferguson	1	15	0	6 issues at £3	23	10	0
Advertisement in Journal ...	0	10	0	Authors' Corrections	1	12	6
Sale of Tickets for Annual Dinner	3	18	0	Reprint	1	0	0
				Cost of Cases and Binding of Journal	1	0	6
				Stationery and Postages	6	1	0½
				Reporting	1	7	0
				Annual Dinner Account:—			
				Cost of Dinner	3	0	0
				Printing Menus	0	11	0
				Postages	0	10	4
				Balance in Hand, May 8th., 1914	5	11	4½
	£48	3	9		£48	3	9

Audited and found correct.

B. RALPH ROWBOTTOM,
JACOB PFAG,

Auditors.

In presenting the above General Account of the financial position of THE ALCHEMICAL SOCIETY, I am very glad to be able to record a fair balance on the right side. This is especi-

ally gratifying in view of the greatly enhanced cost of printing this year, caused, partly by an increase in the price charged by the printer, and partly by the fact that the full quantum of eight parts has been published this year as against five last year. We have to face a further increase in the cost of printing, and the Council have had under consideration the question whether the present very low subscription would allow of the continued publication of eight issues of *THE JOURNAL* per annum. It has been decided, however, to make no alteration, so far as the coming session is concerned, either in the number of parts of *THE JOURNAL* to be issued or in the amount of the annual subscription. And it is hoped that, with a continued influx of members and increased financial support, no such step may become necessary at any future date.

PHILIP S. WELLBY,
HONORARY TREASURER.

SOME MYSTICAL ASPECTS OF ALCHEMY.

By ELIZABETH SEVERN, Ph.D. (Chicago).

HAVING only recently become a member of this Society, I feel some hesitation in attempting to put before you anything very definite connected with the vast subject which you are gathered together to study, particularly on the mystical phase of it. Perhaps, however, there is some hope of my being able to make it worth while, because I believe the *mystical* aspect to be also the *practical* one. All through the rather clouded history of this wonderful study and attempt to solve some of the problems of the universe, there has been a double line of thought. One has dealt entirely with material aspects, and the other with spiritual aspects. Both have had their supporters and both have been difficult to unfold and explain. If the attempts to decode these systems had been more successful, they might have given up a tremendous secret on the material plane, by which we should all be enriched; or they might have helped to solve some of the spiritual problems of the Universe. I have taken up the latter aspect because I think it is the really practical one. If the secret of transmuting the baser metals into higher forms has ever been known, there is one thing very evident, and that is that we do not know it now. Even if we did know it, I have my doubts as to whether any benefits would accrue. Human nature is not strong enough for this yet, and if we knew how to make gold we probably should not find time to do anything else. If, however, we knew something more of the real gold which lies hidden in all symbolic forms, if we could get more nearly at the essence of the things which all material science strives for, we should have a secret worth winning. It would enable us to live our lives upon better ideals. Life, I take it, is for the purpose of character-building, and a knowledge of life is necessary to its achievement. Spiritual Alchemy

supplies some phases of this knowledge that are most important, and that I feel would be a preponderating reason for adopting the study of it if there were no other.

The subject of the mystical aspects of Alchemy was opened up last year by Madame de Steiger, in her interesting lecture, which gave a résumé of one book known to some of us at the present day, as affording considerable insight into the matter. I refer to the book called *A Suggestive Enquiry into the Hermetic Mystery and Alchemy*, by Mrs. Atwood, which is indeed only suggestive in its nature, and very vague on many points. The book purports, however, to give us some of the sealed secrets of the past, though I believe Madame de Steiger's interpretation was to the effect that the final secret was withheld. There are points of view which cannot wholly concur with this conclusion. Personally, I do not think there is any final secret withheld from any earnest soul who truly desires to know it. The secret which was long thought to be hidden in Alchemy, and in many of the ancient philosophies and teachings, was merely some phase of the Truth which could not then be generally apprehended. None of these things can be withheld from the mind or the soul which is evolved to the point of a recognition of them.

The ignorance of the world sometimes seems appalling, but every inward experience is, in reality, an alchemical process toward those higher stages of evolution where a larger proportion of the truth can be perceived, and by a larger number. I see no reason, therefore, for withholding anything which may have been worked out in any human mind regarding the various formulas of truth. As a matter of fact, no truth can be permanently withheld from anyone who truly desires to know. The ancient alchemists, perhaps, did not agree with this view, because there was a great deal known about hidden things which they preferred to keep to themselves—as various forms of priestcraft have done before and since. However, we have reason to believe that the chemical symbolism used was for the purpose of veiling something of a spiritual nature, and this position is the one held in the book entitled *A Suggestive Enquiry*, written some sixty-five years ago.

Just what it is that was hidden is not so clear, but under the great law of analogies, the transmutation of the baser metals into nobler ones clearly may indicate a process of spiritual growth through which each soul some time passes. Indeed, the whole theory of evolution is plainly suggested in alchemical teaching. This growth is not so much in the manifested Universe, as it is in the Consciousness which lies behind all manifestation and of which we, as human beings, are a part. The changes are in ourselves; and the evolution of a human soul from a state of self-unconsciousness to a Supreme Realization is the greatest expression we know of that law of growth which we observe in the material world, where the single cell finally evolves into a highly

complex and intelligent being. Such growth as this inevitably means change, re-combination, new variety of form and improved quality, or perhaps one should say, a truer expression of what had previously been potentialities only. Such abstract dealings as these with the realities of the soul required some formulas or symbols which already possessed obvious meanings and were fairly well understood, and what better formulas could be provided than those of the science of Chemistry.

Mr. Arthur Edward Waite, whose researches in all forms of the ancient Secret Doctrine makes his opinion of special value and authority, believes that, if the alchemical writings were fully de-coded, the complicated chemical terminology could clearly be shown to prove that some of the highest concepts of human and Divine life are clearly there enfolded.

Assuming that the knowledge of some higher state of consciousness was common among the alchemists, one naturally desires to know by what method it may have been obtained. The theory advanced by the author of *A Suggestive Enquiry*, and so interestingly elaborated by Madame de Steiger, is that the veil of ignorance is pierced only by entering into a subjective or trance state, where the springs of knowledge are loosed and flow untrammelled through the mind. This is not unlike the subjective condition induced under modern hypnotism, for the inference is that it was developed in the aspirant by means of an agent or operator. Of what happened in the mind of the subject of such experiments we can have little idea, except in so far as we may have experienced similar conditions ourselves.

Through various schools of thought in all history, there has been this mysterious thread dealing with the interior side of knowledge. Every religion and most philosophies have had this point in common, that in the subjective state of mind, whether achieved in reverie, prayer, contemplation, or in the deeper state known as the mesmeric trance, certain realms of knowledge are opened up, which are ordinarily closed to human intelligence. Plotinus has developed this idea, and Kant, and more recently, Bergson, to mention only a few names. In modern thought, the great emphasis placed on the intellectual and analytical processes generally, has obscured some of the other avenues in consciousness leading to true inspiration, and in this way hindered the development of genius and a greater progress.

Because this purely objective method has so long been the accepted one, the developments of modern psychology have been specially interesting, in that they, through an examination of the mental content, have shown us how to induce the same subjective conditions of mind and methods of thought as were probably attained in the artificially induced trance state. It is my belief that any artificiality in method

has its dangers, and certainly, to depend upon the activities of a second person or agent for one's contact with the higher Wisdom is far from being direct or satisfactory. I say this, although as a healer I have to do with the human mind in somewhat this same manner. To me, it is a plastic material containing all the elements, and yet needing to be moulded and shaped into the higher forms; in other words, its baser elements must be transmuted into the finer qualities of which it is capable. It is a crucible—into which have been dropped all human thoughts; stirring and mixing and re-combining are needed, in order that the real substance or essence within it may be transformed and expressed in the higher equations. All the potentialities are there, but the science of Spiritual Alchemy is required to develop and unfold its contents.

The Ether or All-pervading Intelligence is native to and expressed in the various forms or units known as human beings. The differences thus existing constitute what is called character or temperament. These mental conditions appear to us as great limitations until the true alchemic process is known and utilised. Inherited tendencies are often thought to constitute irrevocable laws. Weakness of mind or body developing into disease is usually regarded as an inherent quality incapable of transmutation or improvement; but there is an alchemic, mental and spiritual process by which these various phases of the human mind are stimulated and transmuted into a fresh shape and form, into new realization.

I love to watch the developments that are possible to the human mind, and observe the wonderful transformations that may take place. It is as if one were looking into a witch's fire, because before our very eyes we can see one of the most subtle and alchemical of all processes. Really it is only a matter of re-arrangement of the chemical constituents, and just as the chemist with much knowledge of material bodies may produce remarkable compounds, so the skilful moulder of human minds is instrumental in the formation of new conditions, and in the development of a lower consciousness into a higher one. The whole law of vibration and the inherent energy contained within the atom are concerned here, and also the law of Correspondences, where we see manifestations on similar lines, whether in physical or spiritual realms. In Psycho-therapy there is a direct application of some of these finer of nature's forces, and the results are clearly visible. There is here a great and practical exposition of alchemy, just where we can get at it.

Under the subtle thing called INFLUENCE many wonderful changes take place. A mental healer merely makes a more direct use of the continuous action and reaction which forever exists between human minds. He becomes, for the time, the operator or agent, who through some knowledge of the material at hand, is able to perform a certain experiment, or help others to do so, just as a teacher of chemistry

in a class-room conducts his experiments in regard to certain materials of which he has the knowledge. The healer kindles the fires of the spirit by giving an impetus out of his own mind, which is equivalent to the touch of the match to materials that are to be consumed or transmuted.

The best method by which such a result can be obtained is clearly a subjective one. The objective consciousness is so purely external to the vast amount of thinking that goes on unnoticed below the surface of consciousness, that it is scarcely to be considered in dealing with the chemistry of thought. The agent, through teaching his pupil to become passive and quiescent, enables him to put his objective thoughts into abeyance, somewhat as they are in normal sleep. In this state the mind of the recipient is more impenetrable, and by the action of the operator's mind upon it, the chemical changes are set in motion. This is not necessarily a hypnotic state, but only one in which the reasoning processes are for the time stilled or held in leash. There are those who can influence for evil as well as for good, but this is true in every phase of life, and there is no particular danger in the process under consideration, as the mind, even when most passive, instinctively resents the intrusion of any thought or purpose alien to its own character. Those who *believe* in the higher mysteries may well expect a further extension of perception in this subjective state than those who do not. There is no self-delusion involved in it, but rather an opening out of mental or spiritual horizons that have formerly been too limited.

Naturally it would be unwise to subject one's self to the influence of a mind inferior to one's own, or even to enter into close rapport of any sort with one lacking in discrimination and integrity. Under proper conditions, where by a deliberate act of the will the seeker after health or knowledge may make his mind receptive, he may be the beneficiary to an extent undreamed of by the uninitiated. Perhaps, through magnetic passes, or by suggestion, or other more subtle modes of interchange, the operator secures a psychic impact on the mind of his subject, transmuting to it his own ideas and conceptions of life, or giving of his own vitality and power. Or better still, he may be only the connecting link between the receptive one and great universal forces of which they may both become the medium, so that things far beyond their personal mental concepts are manifested through them.

No less a person than William James, the great American psychologist, interested himself in reaching a similar state of consciousness by means of taking certain drugs which induce an artificial hypnosis. He experimented with this personally in order to reach the deeper levels of intelligence which it is not ordinarily possible to use. He went into this trance-state a number of times in order to gain an insight into the inner life and to observe different mental states, and

his description of them in his *Varieties of Religious Experience* seems to indicate that they became more than mere mental experiments. They were, comparatively speaking at least, glimpses into the mysteries of the true spiritual state. This is interesting as coming from a man who made no claims to being more than an observer, and not gifted by nature with the quality or temperament that makes a mystical experience natural and easy. As an eminent man of science and something of a materialist, he used these methods for inducing a mesmeric trance, and probably arrived at somewhat the same end as the saints of history, whose recorded mystical experiences tally very closely with his.

In spite of the advantages to be gained, however, by placing ones self in the receptive state through the instrumentality of another mind, there arises the important question whether or not this procedure is a valid one for continual use, and especially for the purpose of spiritual growth and the achievement of the higher states of consciousness. Even with the clearest purpose in view, for the welfare of a subject of such experiments, and with all the knowledge and assurance necessary for undertaking such a responsibility, an operator cannot or should not be forever a necessary means of initiation. There certainly must come a time when an independent spirit will demand to stand alone and seek the higher illumination on his own account alone. It need not remain as an axiom that our progress in the mystical aspects of Alchemy be undertaken at the instance of an agent only.

An average person understands what is meant by a state of reverie, and can assume it quite easily and voluntarily; in fact, the desirability of the subjective state is such that there are various methods in common use for inducing it to some extent, all of which have their value. The effect of certain heavy odours, such as that of incense, is quite well known. Through the olfactory nerves, certain brain centres are inhibited, and probably certain other inhibitions are removed, so that the nature of one's state of consciousness is altered by inhaling them. Probably, the Church has made use of incense because it has recognized the desirability of our sinking below the level of ordinary consciousness at times. In the contemplative condition of mind one can get much nearer the bottom of the crucible than when more alert and objective. Probably, tobacco and alcohol, which are in such common use, are indulged in by a large number of people because they obtain a somewhat similar result; especially poor, poverty-stricken individuals, who have neither the knowledge nor the opportunity of getting away from the great objectivity of their lives except by means of these drugs. Certain psychological practices tend toward the same end, and one phase of them is very ably illustrated in R. L. Stevenson's *Dr. Jekyll and Mr. Hyde*, where first through the use of a drug, and later through psychological habit, two parts of the hero's personality are separated one

from the other, and indulge in independent experiences. More recently, in certain schools of thought, emphasis has been placed upon a habit of concentration for certain mental training, which in itself induces a state resembling self-hypnosis, and enables one to reach certain zones in the mind not ordinarily cognized. Even in ordinary day-dreaming certain nerve centres are inhibited, somewhat as they are when one goes to sleep, and by the same law from which you benefit by sleeping, you may also be benefitted by entering voluntarily into this mental subjective condition.

I think these remarks are sufficient to indicate that the conditions requisite for a spiritual Alchemy to be experienced can, with proper practice, be obtained independently of any operator, a privilege greatly to be desired, even though all the practitioners of so great an art were only the most holy and exalted of men. It is true that in some individuals the spiritual consciousness is so latent, so far beneath the surface, that they need both the assistance and the instruction from those who have passed beyond them on the Path; and indeed it is important to recognize that in the initial stages of such interior experiences all of us are likely to need such service from another, and would progress but slowly without a definite and well-directed assistance. My only contention here is that the book I have mentioned implies that we are more dependent upon our spiritual masters than need be, and that some mysterious experience takes place at their hands of which we are ignorant, and without which we are helpless. I fully believe that each seeker after the Truth may make of his mind a well-fitted laboratory in which he may perform the great alchemical experiment at need. Of course, when we are ill there is a negative condition present which is ill-fitted to meet the requirements. The chemical alteration in both mind and body must then be set in motion through the influence of a positive force supplied by another mind. Often one whole set of ideas may be substituted for another set which have been proved to be inadequate or injurious. A person in ill-health who has been long thinking of his malady, even though such thinking has been sub-conscious rather than conscious, has established certain trains of thought in his mind which are manifestly undesirable, and require a thorough re-organization before he can be either well or happy. By seeking the vital influence of another mind, his own vitality may be increased. Certain factors before potent in his mind may even be quite dissolved away, and a new vibratory action set in motion. In such processes there is a tendency for the whole mode of thought, the whole attitude towards life of the subject, to become similar to that of the one who is pouring force into his mind or bringing its dissociated particles together—in other words, the healer. This change may be physical, mental, or psychic, or it may be spiritual, and some such subtle change as this was undoubtedly the great aim of the alchemical doctors who taught the doctrine

of spiritual development. My own belief as the result of my experiences as a healer, is that, after a certain repetition of such experiments and with a proper training, a receptive patient soon becomes the master of his own mind. He learns that there are faculties and capacities there of which he may have hitherto been ignorant, which are intended to be used by him, and that his will contains within it definite spiritual elements enabling him to bring into expression his latent energies. His psychic experiments may develop so that he will be able to enter by means of "the astral plane" more intelligently into the methods and secrets of the ancient alchemists.

There has undoubtedly been much lost to us of the wisdom embodied in a spiritual Alchemy, though I know there is a spiritual experiment, as I have suggested, which takes each one beyond all human thought and consideration, into a plane where he is immersed in the Divine Wisdom. Since it is not possible to put into finite words an experience concerning the Infinite, it must for ever remain an individual experience; but as a matter of fact we have no actual knowledge of what occurs in even the simplest chemical experiment. After all our study of atoms and their powers of separation and re-combination, we still speak in symbols only; and if that be so, we can scarcely hope to explain clearly the processes of spiritual transmutation. Perhaps the religious phrase "communion with God" is one expression of it; and to obtain "a knowledge of our higher self" is undoubtedly another.

Mr. Waite, who is our greatest authority concerning the spiritual and hidden truths of Alchemy, believes that in all its involved and difficult symbolism there lies a key capable of opening new doors to the aspirant seeking to comprehend and master the spiritual significance of life. May we hope that the genius of his scholarship will some day be turned to the illumination of these mysteries. Until that time, and indeed always, we may make of our lives a continuous transmutation in which all the grosser elements will be transformed into the Gold of Spirit undefiled—the great and only Alchemical Experiment.

ABSTRACT OF DISCUSSION.

MR. GASTON DE MENGEL said that he had been greatly interested by the lecture, though he had found the line of argument adopted very difficult to follow. The subject involved very many questions, and there were many different stand-points from which it could be considered. He thought it could be shown that there was a total difference between spirit and matter, and that spirit as such was entirely above the laws of matter. To speak of vibrations in the spiritual realm was to speak of that which could not exist in the

spiritual realm. The question of healing was a very complicated one, because of the difference in the methods employed by different healers. In the lowest form, mechanical force was employed. Another form made use of suggestion, whilst a still higher method was based on the realisation of the potentialities of the spiritual will. He thought there were many points in the lecture which ought to be cleared up before it could be adequately criticised, because many of the terms employed were such that different minds could interpret them in different manners.

MR. ARTHUR EDWARD WAITE said the lecturer had cast a very interesting light upon particular phases of the *Suggestive Enquiry*. It was very likely the book in question would shortly be obtainable at a low price, when all concerned could judge of its value. At the present time it was almost impossible to obtain a copy, as so far as he knew there were only 15 copies in existence, and one was rarely offered for sale under £10. As the lecturer had clearly pointed out, it was a curious, arresting work on the mystical side of Alchemy; but, unfortunately, it was also uncritical. Mrs. Atwood, the author, recognised something beyond mesmerism, and she claimed to have discovered what it was. She was a nervous woman, however, and was afraid to speak openly, in case people should misuse it. At the present time the mystical interpretation of Alchemy was in a dubious condition. On the one side they had the *Suggestive Enquiry*, and then there was the book published by Mr. Hitchcock, in America. Other works on the subject, however, were few or none, and those he had mentioned did not take the same standpoint. Everything, therefore, remained to be done. Meanwhile, Mrs. Atwood's theoretical exposition of Alchemy has been supplemented by that of the lecturer based on experience.

MR. H. STANLEY REDGROVE, B.Sc., said that they had listened to a very interesting and eloquent lecture on the psychology of healing, in which had been developed the theory of the *Suggestive Enquiry*, viz., that Alchemy was a process of transmutation carried out in the psychic part of man, whereby, the Hermetic seal having been broken, the elements of his mind were reintegrated into a more perfect whole. He supposed he need not say that he did not believe that the alchemists, with a few exceptions, were concerned as such with psychological processes at all, because he had said this on so many occasions. He had laid evidence (which he hoped to supplement later) before the Society for believing that the majority of alchemists were concerned with physical and chemical processes, and that they attempted to deal with these by the aid of doctrines borrowed from theology. This fact made a psychological application of their teachings possible. He was personally in sympathy with what the lecturer had said with regard to secrecy. There were two kinds of secrecy, one inherent in the nature of knowledge, the other the product of convention. He had

also noted with much interest the lecturer's reference to the psychological action of perfumes. He thought that here might be found a partial explanation of the phenomena of mediæval black magic, phenomena which were quite real as such, though at the same time, entirely subjective.

THE CHAIRMAN said that he had listened with great pleasure to the lecture. There was, however, so much in it which required consideration, before any definite conclusions could be arrived at, that he would limit his remarks to a few words. He was inclined to agree with the first speaker that some of the statements required definition in regard to the terms used. As far as his own reading of Alchemy had gone, it had taken the physical rather than the mystical road. There was, of course, much that could be called Mysticism in alchemical literature, and some of the later writers had expressed, in no measured terms, their opinion of the early writers on the physical side, so as to exalt the mystical aspect as the only true one. It was a long time since he had read *A Suggestive Enquiry*, but he recollected doing so some thirty years ago, and being puzzled over it. He might now, however, see his way more clearly to the author's meaning.

Dr. SEVERN, in her reply, said she was very pleased that her lecture had created so much discussion. All the criticism, she thought, had been in the nature of a supplement to her lecture, and had brought out points which she had not had time to deal with herself. With regard to the terms used, she quite realised the justice of the criticism. She was almost driven to the point of thinking that it would be a good plan if lecturers could get out private dictionaries and supply each member of the audience with a glossary before beginning. She had not time to make her meaning clear in every respect, and must ask her hearers to put their own interpretations upon the words she had used. There were two sides, a material and a mystical, to all the points she had attempted to put forth. She had already pointed out that, historically, she did not think the evidence conclusive as to whether the alchemists ever took the physical or the spiritual side of their subject separately and independent of each other, or whether one sprung from the other.

REVIEWS.

Astrology in Medicine. The Fitzpatrick Lectures delivered before The Royal College of Physicians on November 6 and 11, 1913. With Addendum on Saints and Signs. By Charles Arthur Mercier, M.D. 7½ins. × 4¾ins. pp. vii+100. London: Macmillan and Co., Ltd., St. Martin's Street, W.C. Price 2s. net.

DR. MERCIER is a facile writer and has produced an entertaining volume. If one has a tedious half-hour to while away, this book may be well recommended, though occasionally, perhaps, Dr. Mercier's wit passes beyond the bounds of good taste. But the book can hardly be considered as a

serious contribution to a very abstruse subject, and I do not think that Dr. Mercier can be said to throw any light upon the many puzzling problems concerning the relations between Astrology and Medicine in the Middle Ages. As in Alchemy, so in Medicine, everything had to be regulated to harmonize with supposed planetary influence. Dr. Mercier gives details as concerns the Galenical system, but there is no mention of the Doctrine of Signatures and other views of the Paracelsian school.

The statements that "Astrology is now utterly extinct—the last man of high distinction who practised it in this country was John Dryden," are, to say the least, exaggerated. Of course, everything depends upon what is implied by men of "high distinction." Certainly, John Dryden was by no means the last learned and distinguished man in this country to practice Astrology, and if I mention the name of Richard Garnet out of many others, it is simply because I have recently been reading one of his pamphlets and the name is fresh in my memory. I do not know whether the fact that learned men have practiced and still do practice Astrology is any proof of the validity of its doctrines. I simply mention it as a fact.

Dr. Mercier remarks, "There was a certain conventional order, the origin of which cannot now be traced, in which the Planets were always enumerated; an order that does not correspond with their relative size and importance." This order is as follows—SATURN, JUPITER, MARS, SUN, VENUS, MERCURY, MOON,—and is that of the relative velocities of the planets as observed from the earth. A discovery by Mr. W. Gorn Old (see his *A Manual of Occultism*, 1911, pp. 7 and 8) concerning this order gives rise to a very interesting problem. Let us commence with the Sun in the above sequence and write down every third planet. We then have SUN, MOON, MARS, MERCURY, JUPITER, VENUS, SATURN. (Sunday) (Monday) (Tuesday) (Wednesday) (Thursday) (Friday) (Saturday) That is to say, we now have the planets in the order in which they were supposed to rule over the days of the week. Now, let us start with Saturn in the first series and write down every fifth planet. We then have—

SATURN, MERCURY, SUN, JUPITER, MOON, VENUS, MARS.
 (Lead) (Mercury) (Gold) (Tin) (Silver) (Copper) (Iron)
 (- 207) (- 200) (- 197) (- 119) (- 108) (- 64) (- 56)

If now we write in place of each planet, the metal over which it was supposed to rule, we have these metals arranged in descending order of atomic weights. Similarly, we can, starting from any one of these orders, pass to the other two. Mr. Old has shown these relations between the three orders by a somewhat different, and, as it seems to me, more cumbersome method. But certainly the discovery is his, and it is a most remarkable one. The last order is the most surprising, because we cannot believe that the ancients were

acquainted with the atomic weights of the metals. Is there a real relationship between the planets and the metals, or is some other explanation possible? Possibly Dr. Mercier's wit may be able to explain a way out.

EDITOR.

The World Set Free: A Story of Mankind. By H. G. Wells. 7½ins. x 5ins., pp. vi. + 286. London: Macmillan & Co., Ltd., St. Martin's Street, W.C. Price 6s.

WRITING in 1910 of the possibility of the artificial production of gold by means of the new source of energy made evident through radioactive change, and of the state of financial chaos that would necessarily follow, I said that it was "a theme that ought to appeal to a novelist of exceptional imaginative power." [*Alchemy: Ancient and Modern*, 1911, p. 136.] I confess that I had in mind the writer whom I regard as the greatest living novelist, I mean Mr. H. G. Wells, and I wondered if by any chance the words might catch his eye and bear fruit. I gather that he has not actually seen this suggestion, but he has carried it out unconsciously all the same. Early in his book he says that "Through all the ages of history there were men to whom [a] whisper had come of hidden things about them," men who conceived of these hidden things as power to be gained and utilised, and he adds, mentioning Roger Bacon by name, that "half the alchemists were of their tribe." Mr. Wells writes of the world made new, a world in which science reigns supreme, and in which the love of knowledge and utility has replaced the lust for material wealth and dominion. I think Mr. Wells has made an error in allocating a subordinate position to the emotional element in the life of his new world, failing to realise, it would seem, that there are even more powerful forces than those enchained within the atom. But truly his world is a world set free from many present evils, a world set free from the curse of capitalism with its exploitation of labour and intellect, in which scientific co-operation has taken the place of wasteful competition. And what will be of special interest to readers of this JOURNAL is that it is a world set free by means of Alchemy. The discovery of how to utilise interatomic energy places a new source of power in the hands of man. Gold is obtained as a by-product in the extraction for motor purposes of this energy from lead and bismuth, and thus the standard of material wealth is destroyed. Artificial radioactive substances, which continue to explode for ever, according to the usual exponential law, with terrific though decreasing violence, are manufactured; and used in the final war, destroy the present centres of civilization, converting them into beds of flaming violence. Thus is rendered possible, and arises, a new and better order of things. The book has already been criticised (by *The Athenæum*) on the ground that Mr. Wells reaches his utopia by catastrophic means; but as he argues in the book itself, if the sociological results which he predicts do not follow in one way, they will assuredly follow in an-

other; moreover, the catastrophic events are in the order of evolution, since it is certain that the next great advance in Science will be the utilization of interatomic energy, and as in the past, so in the future, every new power man has wrested and will wrest from nature has brought and will bring about a mighty change in his social organization.

To some extent, in *The World Set Free* we have a return to the style of Mr. Wells' earlier scientific romances, but this is combined with the spirit dominating his later sociological novels. The result is a work which, in the quality of the imaginative power, transcends mere fiction. EDITOR.

READERS of the JOURNAL will no doubt be glad to learn that copies of Mr. Arthur Edward Waite's monumental work *The Hidden Church of the Holy Graal: Its Legends and Symbolism Considered in their Affinity with Certain Mysteries of Initiation and other Traces of a Secret Tradition in Christian Times* (8 $\frac{3}{4}$ ins. $\times$ 5 $\frac{1}{2}$ ins., pp. xix + 714) can now be obtained from Mr. Frank Hollings, of 7, Great Turnstile, Holborn, W.C., at the reduced price of 7s. 6d. net. The book is one of that series undertaken by Mr. Waite, dealing with secret doctrine, of which *The Secret Doctrine in Israel*, reviewed in a recent issue of the JOURNAL, is a later addition.

The Hidden Church of the Holy Graal, like all Mr. Waite's books, is a work of scholarship and interest. No previous acquaintance with Graal literature on the part of its readers is assumed, though it must remain a sealed book for those unversed in mystical doctrine. But for those who can receive it, and even for them its message is not always obvious, it will be found a mine of rich suggestion. Probably most readers of the JOURNAL will turn with particular interest to the chapter entitled "The Latin Literature of Alchemy and the Hermetic Secret in the Light of the Eucharistic Mystery," in which a comparison is instituted between the mystery of the Graal and the mystery of transmutation. Mr. Waite's position seems to be that, just as in the Graal legends folklore was used for a similar purpose, so in Alchemy we have a literature dealing with chemistry and metallurgy taken over, reinterpreted and expanded, in the interests of secret mystical doctrine. The earlier Alchemy, so to speak, was physical only; the latter was alternatively one or the other, or both. Of course, the weak points of such a view are (i) that it does not explain the origin of Alchemy, as a theory of metallic transmutation, and (ii) that it does not explain why the details of this theory should prove so adequate to the needs of a system of secret doctrine seeking for symbolic veils. But of course, we must not expect a solution of the Hermetic mystery in a book not dedicated to this end. As concerns the Graal mystery, Mr. Waite has produced a book that will permanently occupy a place in the literature dealing therewith. The value of his work is enhanced by a critical bibliography.

EDITOR.

