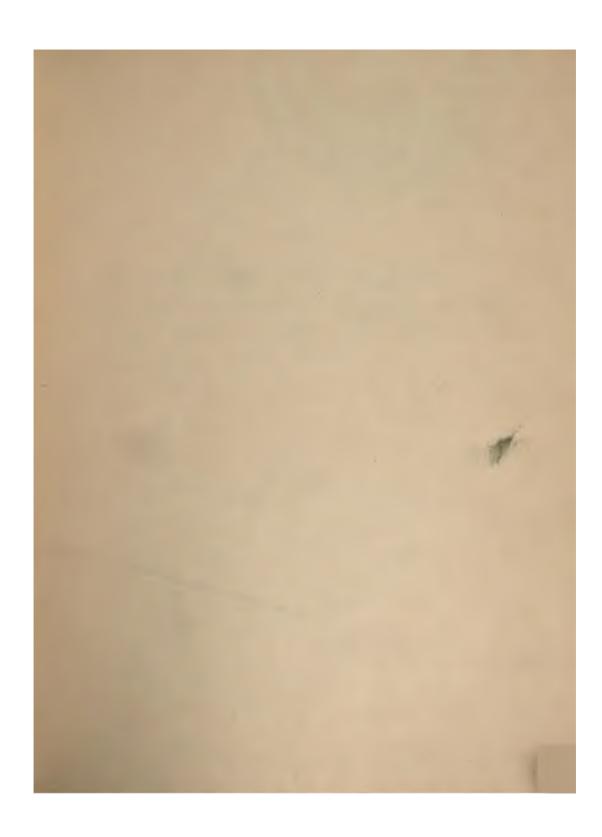
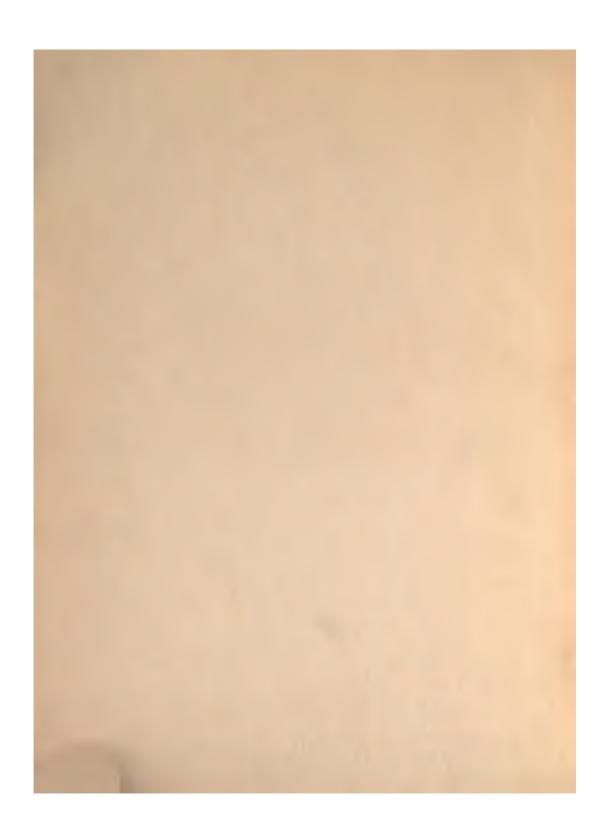


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See note on page 14 of Part III, on the author's intention to give an account of the English editions of Polydore Vergil in fuller detail.

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ON

HISTORIES OF INVENTIONS

AND

BOOKS OF SECRETS

SIX PAPERS

READ TO THE ARCHÆOLOGICAL SOCIETY OF GLASGOW

APRIL 1882—JANUARY 1888

BY

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HISTORIES OF INVENTIONS

AND

BOOKS OF SECRETS.

JOHN FERGUSON, M.A.

PART 1.

(Reprinted from the Transactions of the Glasgew Archaelegical Society.)

GLASGOW:

Brinted at the University Press by ROBERT MACLEHOSE AND CO.

1896



ON

HISTORIES OF INVENTIONS

AND .

BOOKS OF SECRETS.

Ne sis garrulus, sed pone ori tuo custodiam, et ut filius sapientum, margaritas ante porcos non projicies.

THOMAS AQVINAS, Thesaurus Alchimiae secretissimus.

₽Y

JOHN FERGUSON, M.A.

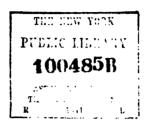
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GLASGOW:

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1896



100 copies reprinted in 8vo, 1882. 50 copies reprinted in 4to, 1896.

NOTES ON SOME BOOKS OF TECHNICAL RECEIPTS, OR SO-CALLED "SECRETS,"

BY

JOHN FERGUSON, M.A., PROFESSOR OF CHEMISTRY IN THE UNIVERSITY OF GLASGOW.

[Read at a Meeting of the Society held at Glasgow on 20th April, 1882.]

The following notes may serve to some extent as an introduction to a subject wide in itself, and with numerous and important connections. The history of practical invention and of technical progress is one which might well engage the attention of students of anthropology and antiquities, as it throws light on many points connected with the growth of social life and civilization. The desire and the power to turn external objects to his service and convenience are developed to such an extent in man, that, among the many differences between him and other animals, may be reckoned the various arts by which he induces nature to accommodate herself to his wants; among the lower animals one looks in vain for anything parallel to the arts of cookery, medicine, metallurgy—to the systematic use of tools, of clothing, of weapons.

In ancient times the various handicrafts were monopolies of certain families or castes; in the middle ages the handicraftsmen were too glad to pursue their callings in obscurity; it is only in the most recent years that arts and manufactures have acquired such paramount interest, that the special or technical education of those who are to exercise them has come to be thought of national importance. While, in the days of the Greeks and Romans, the artizan was a despicable if not an almost infamous person, and, in the middle ages, was oppressed by the military and ruling

classes, against whom, nevertheless, he carried on a ceaseless struggle until he succeeded in asserting his importance, and even his equality with them. it has been reserved for the present day for ignorance of arts and manufactures, and indifference to their progress, to be as discreditable as they were formerly dignified. The history of the growth of the arts themselves. and of the attitude of society towards them, is, therefore, of wider extent, and of greater philosophical interest than at first sight appears. This history has not as yet been written and, as time goes on and material gathers, the more difficult it becomes. The only work in which the attempt has been made is the "History of Inventions," of Beckmann, written towards the end of last century.* This work, however, is less a history in the strict sense of the term, than a collection of antiquarian essays upon various objects of manufacture, and upon some technical questions. The essays, besides, are not arranged in any definite order, and have no direct connection with each other, but they are very elaborate, and show a wonderful amount of research and knowledge. Since Beckmann's time, I do not remember any laborious German who has followed up his work. There is certainly nothing on the subject in English.†

^{*}Beckmann's work is entitled "Beyträge zur Geschichte der Erfindungen," and it was published at Leipzig, in five volumes, between 1786 and 1805. An English version and abstract appeared in 1823, in two volumes, and a new edition was published by Bohn in 1846, in two volumes.

[†]In writing the above I had forgotten some systematic works on the history of arts and manufactures which are more consecutive and philosophical but less thorough than Beckmann's collections. There is the work of Antoine Yves Goguet—"Origine des loix, des arts, des sciences, et de leur progrès ches les anciens peuples," published at Paris in 1758. It was translated into English, and there were two editions, of which that of 1775, in 3 vols., 8vo, is now before me. This book partakes largely of the character of a treatise on antiquities, but it embraces sections on the history of arts and manufactures among all the ancient peoples. It is a curious book, and shows familiarity with the classical writers, but it is of no authority now, after the research that has been expended, not only on almost all the topics that the author includes in his discussions, but also on the authorities to whom he owes his information.

A better and more specialized work is the "Geschichte der Technologie" of Johann H. M. Poppe, in three volumes, published 1807-11, and forming part of the Göttingen series of histories of science, arts, and philosophy. In the more recent Munich series of histories there is a "Geschichte der Technologie," by Karl Karmarsch, in one volume, 1872.

It is not my intention now to say anything about the progress of arts and manufactures at all, but only to bring under your notice a section of literature which is nearly ignored by bibliographers and antiquaries, and is altogether out of the ken of book-reprinting clubs.

It is hardly to be expected that a practical art can have any literature worth speaking of. The man who is busy practising it can have little time to write about it, and he who wishes to learn it must put to his hand and work at it, and that under the supervision of a master, and not by This is the apprenticeship that every one must merely reading books. No amount of reading will make a sculptor, or a gardener, or a shoemaker, or a surgeon, or a musical executant. The arts must be acquired by practice, and they are extended and improved by practice. Every one who exercises them comes to have special power and certain ways of doing things, which may enable him to surpass others who are similarly engaged. These are his "secrets," which very often he cannot, or will not, reveal to others. Rapid insight into a particular case, power of overcoming physical obstacles, ingenious adaptations of means to ends, exhibition of due care at the right time, enable one man to effect what others cannot.

In earlier times artists were very chary indeed of telling their secrets, and in the great craze of the middle ages—the craze to make the philosopher's stone—the adepts were continually on their guard to conceal their art from the unworthy, while revealing what was thought suitable for the

Both of these works give good accounts of the growth of arts and manufactures, and contain numerous references to books and papers on them.

Quite recently I came across a little work entitled "A pleasant and compendious History of Inventions," London, 1686, 12mo. In it an attempt is made to give, in briefest outline, the origin of some important inventions. Defective as were both the plan and execution of this booklet, the author had a very clear notion of the importance of his subject, and of its general interest.

So far as I know, no complete and systematic work on the history of arts and manufactures has appeared in this country. A collection of essays by David Bremner on the Industries of Scotland was published at Edinburgh in 1869. They deal chiefly with the then state of the industries, although there are usually short historical narratives prefixed. The work entitled "Manufacturing Arts in Ancient Times," by James Napier, London, 1874, 8vo, is occupied almost entirely with the history of metals and of dyeing.

genuine artist to know. The philosopher was warned to admit no one to his laboratory—or to his confidence. Even at the present day, secrets have not wholly died out; there are manufactures which are still undivulged, and any one engaged in the scientific investigation of some phenomenon or law of nature, will not tell his professional brethren unreservedly what he expects to discover, before he has finished his labours.

It would seem, however, that in spite of the precautions of the older artists, their private ways of working, of producing substances, of making colours, and effecting all kinds of material changes, oozed out and became at last public property. But even after their publication, these methods and receipts retained, paradoxically, the name of "Secrets," and many collections of them appeared during the last three or four hundred years. It is beyond my power to give a complete list of these; my purpose at present, as I have already said, is to exhibit a few of those to which my attention happens to have been recently directed, and of which some at least are possessed of a certain amount of archæological and bibliographic interest.

This set of books divides into several groups, but perfect classification of them is impossible on account of the way the themes interweave.

- I. There are collections of secrets of nature, or treatises on natural history, general science, and cosmogony. Of this set, Pliny's history seems to have been the model.
- II. There are treatises on what was called natural magic (as distinguished from black magic or necromancy)—that is, the production of secret effects in optics, acoustics, magnetism, &c., &c., by natural causes. This is the form which natural philosophy originally took.
- III. There are treatises which deal chiefly with chemical, pharmaceutical, and medical secrets.
 - IV. There are treatises on life and generation: physiological secrets.
- V. There are treatises on technical or art secrets, strictly so called, and they may be arranged conveniently in two classes: general collections con-

^{*}In the remarks which followed the reading of the paper it was pointed out that not so long ago chemical works were known, everywhere in Scotland at least, as "secret works." Some are still practically such.

taining receipts relating to a variety of arts, and special collections containing receipts of use in one art or handicraft only.

I have examples of each of these classes to exhibit.

The earliest medieval treatise on the subject of the practical arts to which I can refer at the present moment is that of Theophilus. It exists in MS. in several libraries and was first edited with translation, introduction, and notes by Robert Hendrie, in 1847.* The date is not exactly known, but the work seems to have been written in the eleventh century. It is in three books. The first treats of the materials used in painting and illuminating; the second of the making and colouring of glass; the third of metal working, bell making, organ building, lapidary work, colours. It is, therefore, a very important and interesting work for the history both of the sciences and practical arts. It mentions a number of substances and the manner of making them, which involved chemical skill, and it treats of arts, the results of which remain to this day the admiration and the despair of connoisseurs.

One of the biggest, if it be not the biggest, book written in the middle ages and printed in the fifteenth century, was the work of a Dominican monk, called Vincent de Beauvais.† It is a vast compilation or encyclopædia, a mirror of human knowledge as he called it—Speculum quadruplex—divided into four main parts, of which science and art form one. Of this huge work I have never encountered a copy, and have only seen a fragment about alchemy reprinted in a collection of such pieces. The author was born about 1190, and died about 1264. His labours, like those of his contemporaries, were chiefly devoted to philosophy—moral, metaphysical, and theological—and he engaged in the conflict then raging

^{*}A French translation had appeared previously in 1843, edited by Count de l'Escalopier.

†For information—not much—about the author, an abstract of the bibliography of his

rfor information—not much—about the author, an abstract of the bibliography of his work, and an outline of the contents of it, reference may be made to the article "Vincent de Beauvais" by Daunou, in *Histoire Litteraire de la France*, Paris, 1835, 4to, T. XVIII., pp. 449-519, and the numerous authorities there quoted. Through some oversight, Hain, while giving a cross reference, has omitted Vincent's name in the right alphabetical place in his *Repertorium Bibliographicum*. The Speculum appears to have been printed by Johann Mentelin at Strasburg, and finished by 1476. It is in 9 volumes folio: Speculum naturale, 2: morale, 2; doctrinale, 1; historiale, 4.

between the realists and nominalists, but he was able to turn from discussions on words and definitions, to the contemplation of external objects. The Speculum Naturale, or history of nature, is a commentary in thirty-two books, the text being the narrative of the creation as given in Genesis. This treatise deals less with arts than with cosmogony and natural history.

In this respect it differs, therefore, from the writings of two of his contemporaries, viz., Roger Bacon (1214-1292-4), and Albertus Magnus (1193 (?)-1280).

In his Opus Majus, Bacon has given an encyclopædia of human knowledge, and especially of physical science, but it is another work of his which falls to be mentioned in this place, namely, his "Epistola de secretis operibus natura et artis, et de nullitate magia." This is a short report on the very wonderful effects that can be produced by natural means, and it is in this tract that occurs the often-quoted allusion to the composition and power of gunpowder. This letter was intended as a reply to the persistent attacks of malignant ecclesiastics who accused him of practising "black magic" *—by showing that the apparent mystery was due to the ignorance of his accusers and not to any compact of his with the infernal powers.

Albertus Magnus is credited with a treatise of secrets, but the authorship has been disputed and has been assigned to Henricus de Saxonia, one of his pupils, but whether this be correct or not the work usually, if not invariably, bears the name of Albertus. It deals with physiological secrets only, and that in a very brief manner; so that, both in range and in bulk, it is quite the reverse of an encyclopædia. Notwithstanding, if we may judge by the number of editions, it was one of the most popular treatises from the 15th to the 17th century.† Albertus was the author

^{*}The black magician, or necromancer, was believed to have carried on a correspondence with the fiend and entered into a compact by which, on the liberation of the latter from his "prison-house," he would assist the magician in carrying out schemes which, in their expected results, could be called nothing else than supernatural. The correspondence with the magician's name at it, was usually brought up in evidence against him—very much to his annoyance—when he had to implement his share of the bargain.

[†] It is entitled "De Secretis Mulierum," and a list of the early editions is given by Hain (Repert. Bibliogr., Nos. 549-568). In character it closely resembles the "De phisio-

likewise of a treatise on the secrets of plants, animals, and stones, in which he described their occult virtues.

In the following century flourished Bartholomew Glanville, a Cornishman, author of a ponderous work on the Properties of Things, divided into nineteen books. As it deals chiefly with natural history it hardly falls within consideration at present, but it gives incidentally technical descriptions. It was first printed in the fifteenth century, the earliest edition being of date 1478, and it was often re-issued, besides being translated into French, Dutch, and Spanish. It was also translated by John Trevisa in 1398 into English, and published by Wynkyn de Worde a century later.*

In the fifteenth century another book which had a considerable share of popularity was printed. It is entitled "Lucidarius," and was written by a monk called Honorius of Strasburg. It first appeared in 1479, but the edition which I have here and which is worth examination for its uncommon type and curious woodcuts, was printed at Strasburg in 1499, by Mathijs Hupfuff. It is very rare, and though Hain mentions it (Repert. Bibliogr., No. 8814), he had no actual copy for collation. He consequently says that the book has twenty-nine leaves, whereas this copy has thirty, the last containing a woodcut of the carrying of the cross. This work is a sort of catechism of natural and supernatural things. The questions are asked by the scholar, and the answers are given by the master, who thus imparts the required instruction in the secrets of creation.

All these works are of a general character, and, except the first, deal with the physical and natural sciences, as these were understood from the twelfth to the fifteenth century—they are examples chiefly of the first class. That some of them were among the books first printed in the fifteenth

nomia" of Michael the Scot, and the two tracts were frequently printed together during the 17th century. It was translated into French and German. An edition of the French (Cologne, 1722), entitled "Les admirables secrets d'Albert le Grand," contains, besides the two tracts of Albertus, a third consisting of practical receipts, and a fourth on physiognomy.

^{*}Johnson's Typographia, London, 1824, I., p. 354. There is a copy of the Latin edition printed in 1480, in the Euing Collection, Glasgow University Library. It is in folio, in double columns, printed in fine Gothic character.

century and went through several editions and translations, notwithstanding their bulk in certain cases and their frequently absurd contents, shows that even then there were many people anxious to know something about nature and external objects.

The sixteenth century produced no great encyclopædia like some of those I have mentioned. Either the breed of encyclopædists had become extinct, or else knowledge had grown too great to be gathered by one man in his lifetime and put in a book, but we find several less ambitious authors dealing with different kinds of secrets, some of nature, others of arts.

First among those whose works I have here comes Levinus Lemnius, who was born at Zirickzee in Holland, in the year 1505, and after studying at various places became a physician in his native town. Between the years 1559-64 he published a work entitled "De Miraculis Occultis Natura, Libri IV." Of this book several editions appeared, of which I have here two, Franckfurt 1604, and 1611, both in 16mo. It was translated into English under the title of "The Secret Miracles of Nature, in four books," London, 1658, in small folio, of which there is a copy here. It was translated into French by the alchemist Gohory and published at Paris [Orleans] in 1568, and it was translated also into Italian.

It is a most heterogeneous collection, heterogeneously piled together, of notions on physiological, physical, medical, religious, and moral topics, with attempts to explain phenomena in nature which subsequent enquiry has shown do not exist at all. The collection is a very curious one, notwithstanding, and furnishes good instances of popular ideas about natural things current three hundred years ago. It would be difficult to bring this collection under any of the classes above mentioned—the only thing tolerably certain is that it contains hardly any practical receipts.

Contemporary with Lemnius, but ten years his junior, was Conrad Gesner, who flourished from 1516 to 1565. One might spend much time over the works of this really distinguished man, who was called the German Pliny, on account of his comprehensive learning. Besides his writings on animals, plants, and minerals, on languages, pharmacy, natural philosophy, and so on, he was one of the first bibliographers and book cataloguers, his "Bibliotheca Universalis" being the best and most com-

plete catalogue which appeared in the sixteenth century, and being still a valuable book of reference.

Under the pseudonym of Evonymus Philiatros, he published a book entitled "Thesaurus de remediis secretis"—a treasury of secret remedies. It appeared at Zurich in 1554, and in the course of a few years went through numerous editions, and was translated into English, French, and German.

I have here examples of all these:-

- 1. Latin.—An edition in 16mo, Lyons, 1555, by Balthazar Arnollet, and another without date, printer's name, or place, but as the device on the title page is a tree with five frogs,* doubtless this edition was printed by Froschover at Zurich. Neither of these editions is mentioned by the bibliographers.
- 2. German.—The German translation appeared at Zurich in 1555, and other editions were published in 1582, 1583, and 1608. Of this last there is a copy here.
- 3. French.—Like the German, the French translation was executed immediately after the Latin appeared. It was published at Lyons in 1555 in 4to, again in 1557 in 8vo, and in 1559, in 8vo, by Antoine Vincent. I have not observed any reference to the 1559 Lyons edition. As will be seen by the copy here, it is a very prettily printed book with nice woodcuts of herbs and chemical apparatus.
- 4. English.—It was translated into English by Peter Morwyng, and published by John Day, at London, in 1559. Another edition appeared in 1565, which corresponds page for page with the earlier one, and ten years later, in 1575, a third edition came out. The copy here is of the 1565 edition. It is handsomely printed in bold black letter, and is illustrated by woodcuts of plants and apparatus for distillation. The main purpose indeed of the book is to describe the way of preparing remedies from plants by that method.

In 1569, after Gesner's death, a second part of the treasure was edited

^{*}A more elaborate form of this device will be found on the title page of Gesner's "Bibliotheca," ed. Simler, 1582, printed by Froschover. The device is a punning one.

by Caspar Wolff or Wulphius. It became nearly as popular as the previous part, and was translated into French and English.

- 1. Latin.—It was first printed at Zurich in 1569, but I have no copy to exhibit.
- 2. The French version was executed by Jean Liebaut, and appeared under his name at Lyons in 1593, in 8vo. Thereafter at Rouen in 1628, and 1643, of which edition a copy is here. I have here also another published at Rouen with the date MVIC, which would appear to mean 1600, and it would therefore be much earlier than the other, but against this date is the fact that it has not the look of a book printed in 1600. Besides it is called on the title page *Derniere Edition*, so that one would suppose it to be subsequent to those above mentioned.
- 3. The second part was Englished by George Baker, surgeon to Queen Elizabeth, and two editions of it were published, of both of which copies are before us. The first bears date 1576 and is entitled the "Newe Jewell of Health." It was published in London by Henry Denman, in small 4to, and printed in black letter. It is illustrated with numerous woodcuts of apparatus and operations. The second edition appeared in 1599 under the title of "The Practice of the New and Old Phisiche." It was published at London by Peter Short, and is also in black letter.

It will be noticed that this work in particular contains the pharmaceutical and to some extent the chemical knowledge of the time of Shakespeare. The copy of the first part which is here was printed the year after he was born, and it is very likely that the pictures of plants and chemical operations which it contains would not escape his notice even while still a child. The examination of these books gives one some insight into the references which occur in the plays to the physician's art and the works of the apothecary, who was not always then, or for long after, distinguished with sufficient accuracy from the poisoner.

Gesner's work is specially concerned with medical and pharmaceutical secrets, and does not take up either natural history and physical, or trade and technical secrets.

A work more representative of technical art than any of the preceding was the "Pirotechnia" of Biringuccio, which was published at Venice

in 1540. It deals particularly with the extracting of metals from their ores, their fusion, casting, calcining, and conversion into various compounds, the preparation of salts, the distilling of acids, the founding of cannon, the manufacture of gunpowder and of fireworks. Of the several editions which appeared I have here the first edition of 1540, in small quarto, and the 8vo edition of 1559, also printed at Venice.* The work was translated into French and published at Paris in 1572, of which translation there is a copy here. Copies both of the 1540 Italian and the 1572 French editions are uncommon.

In the compilation of books of secrets the Italians in the sixteenth century showed considerable activity, and the examples of them that are here may be taken together in chronological order.

The earliest of them is ascribed to Don Alessio Ruscelli, a Piedmontese. whose reputed work was first printed at Basel in 1536, in 8vo. went through a very great number of editions, but although it was one of the most popular of the collections of receipts or secrets, copies of it are now quite unusual in catalogues. The editions were in all likelihood actually worn out by use. The copy here is a comparatively early one, having been printed at Venice in 1568. This collection was translated into English, and the four different parts appeared in succession, the first in 1562, the last in 1578. According to Watt, who gives the titles at length and enumerates different editions,† the secrets appeared in every European language. He adds that an abridgment of it was long a popular book at the foreign fairs, and Nisard mentions a book which consists of extracts from Albertus Parvus, Cornelius Agrippa, and others, but which he thinks is chiefly a rehabilitation of the work of Alexis. This collection, therefore, is still publishing and selling in France by the pedlars, and flying stationers, as they used to be called. The editions Nisard mentions are of 1837 and 1839. It is hardly necessary

^{*}I have since got a copy of the second (?) edition, printed at Venice in 1550, 4to.

[†]An edition of 1595, London, Peter Short, is not mentioned by Watt. It is in small quarto, black letter, and resembles the 1599 edition of the second part of Gesner's work. There is a copy in the Euing Collection, Glasgow University Library.

¹ Ch. Nisard, "Histoire des Livres Populaires," Paris, 1854, I., p. 225.

to say that however creditable the Don's compilation may have been to the sixteenth century, it gives one but a poor idea of the progress of true physical and medical knowledge among the mass of the people in the nineteenth, that such books can be sold for actual perusal and reference.

A similar collection to the preceding was made by Gabriello Falloppio, celebrated as an anatomist, who lived between 1523 and 1563. The work is entitled "Secreti Diversi," and it appeared after his death in 1566. There is a copy of it here. It contains receipts for preparing different bodies to be used in medicine, for the production of wines, alcoholic extracts of plants, cosmetics and waters. It also explains the chemical treatment of the metals, their alloys, the way of changing their colours, converting them into different kinds of salts and so on. There is no English version of this, so far as I know, but there was a Latin edition, and one in German, Franckfurt, 1641, of which there is a copy here.

Two years later, in 1568, there appeared at Venice another collection of secrets. The author or compiler was Leonardo Fioravanti, a physician of Bologna, who died in 1588. His collection is arranged very much in the same way as Falloppio's and it contains not only secrets of medicine and surgery with the necessary preparation of drugs and remedies, but receipts for several technical purposes as well. Besides the Italian edition of 1571, Venice, 8vo, I have here the German translation of Darmstadt, 1624. Of this work an English translation was made by John Hester, which was first published at London in 1582, in 16mo. It was afterwards reprinted with some other translations by the same hand, and appeared in small quarto in 1652. Of this edition I possess a copy. The translation differs in several details from the Italian, and it embraces only the medical section of the original.

A much better known man than any of these published a collection of curious arts at Naples in 1558. This was the Neapolitan, Giambattista Porta, who lived between 1538 and 1615, made long journeys in search of natural knowledge, and formed an Academy of the Secrets of Nature in his house at Rome, which was suppressed of course.

His work is entitled "Magia Naturalis," and it is divided into twenty books, according to subjects. This is a more comprehensive work than

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some of its predecessors, but I cannot say that in its contents it is much more sensible. It had its share of popularity, however, passed through many Latin editions, and was translated into all the languages. Besides three of the Latin editions (Franckfurt, 1591, Leyden, 1644, and Amsterdam, 1664), I have here a copy of the scarce English translation of 1658, with the still scarcer frontispiece, which contains a portrait of the author, and a representation of the four elements, and of Art and Nature, disposed in compartments. Among the curiosities contained in the first edition of this book, 1558, is an account of the camera obscura as it was known—without the lens—to Leonardo da Vinci. In the 1589 edition it is described with the lens, but there is no proof of what has been stated, that the instrument was either invented or improved by Porta. On the whole, the optical division is one of the best in the Magia Naturalis.

The last of the Italian collections I have to show is that of Leonardo Locatelli, a physician, like most of the older naturalists. The work is entitled "Theatro d'Arcani," and it deals chiefly with chemical and alchemical changes and products. I have here the edition of Milan, 1644, and that of Venice, 1667. So far as I know there was no translation published.

The preceding are almost all mixed collections, but in the sixteenth century there appeared a series of small books, of purely technical character, about which I have failed in getting any information. The only thing to be done therefore is to enumerate and describe the books themselves, which are now before us.

The oldest is entitled "Künstbüchlin," and it was printed at Augsburg in 1537.* This is a collection of receipts, pure and simple, intended for practical workpeople. The topics are the working of metals, the making of colours, the dyeing and colouring of various objects, the calcining of the metals, and such like.

In 1549 there was published at Amsterdam a small volume, entitled "Kunst Boeck," which I have not seen referred to in the bibliographies. It is said to be compiled and in part translated—ghecolligeert ende eensdeels

^{*}Graesse, Tresor de Livres Rares, Dresden, 1863, iv., p. 53, quotes this same book, but gives the date, 1538. Other later editions are mentioned.

getraslateert—by Symon Andree. The translated sections are from the "Künstbüchlin." In 1581 the translated part of the preceding was republished, with a second tract containing different receipts from those in the earlier one, and in 1600 there appeared at Amsterdam an edition of all the parts together in Dutch. In 1687 finally a modernized reprint of the "Künstbüchlin" appeared at Franckfurt, in 12mo. These collections represent fairly the kind of receipts for practical purposes current in the sixteenth and seventeenth centuries.

Johann Jakob Wecker, a physician at Basle, added another compilation to the preceding. It appeared in 1582, and several editions were published. That which I have here was printed at Basle so late as 1701, and is entitled "De Secretis Libri xvii." It is arranged in a most systematic manner, and in this respect is superior to all the others; but one cannot give much praise to the information which the book contains. An English version was printed in folio, in 1660.

The seventeenth century produced a large number of books of secrets, of which there are one or two here.

A work somewhat similar to Wecker's, but of a more philosophical cast, was written by Heinrich Nollius, and published at Franckfurt in 1619. It is entitled "Natura Sanctuarium: quod est Physica Hermetica . . . methodo perspicua et admirandorum secretorum in Natura abysso latentium philosophica explicatione decenter in undecim libris tractata." This work contains a discussion on general physical ideas and principles from the standpoint of the alchemical or hermetical philosophy then in vogue, and, as is said on the title, deals with the hid secrets of nature rather than of practical science and art.

Works treating more strictly of natural phenomena and practical physics were compiled by Casper Schott, a Jesuit, and Professor at Würzburg. Reference may be made to two of his works. "Physica Curiosa, sive Mirabilia Naturæ et Artis Libris xii. Comprehensa," printed at Würzburg in 1667, in 4to. This treatise is chiefly on Natural History, and contains a great many drawings, of which those depicting different monsters, both of animals and human beings, show the greatest amount of ingenuity and originality on the part of the artist. The boy with the elephant's head,

puer capite elephantino; the monstrous cock, with hoggers, and a tail like a cow's, set apparently in a metal socket; the infans cum promuscide et capitibus animalium; the vitulomonachus, or bull-calf monk; the equus cute lacera, or horse with the slashed doublet, and numerous others, surpass anything in the way of development devised by recent naturalists.

Ten years later, in 1677, there appeared at Bamberg, Schott's "Magia Universalis Natura et Artis," in four volumes, 4to. This is a treatise on old Natural Philosophy, and of the arts thereon depending, for instance, under acoustics the author describes organ building. This work is very copiously illustrated, and the general excellence of the drawings of apparatus and experiments is noticeable. The artist has been a much more matter of fact person than the other.

About the same time, but without place or date, there appeared a volume in 4to, entitled "Joco-Seriorum Natura Centuria 4." It bears the name of Caramuelius as the author, but in all probability this is a pseudonym, and the real author was Schott.* It is a collection of curious things to be effected by physical causes, merely for the sake of amusement, and without any practical purpose in view.

In English two technical books were published that had some reputation. Gabriel Plattes' "Discovery of Subterraneall Treasure, viz., of all manner of mines and mineralls, from the gold to the coal," appeared at London in 1639. This, as its name indicates, is concerned chiefly with mining and metallurgy, but there is a section at the end devoted to the colours that can be extracted from vegetables and the way of dyeing in fast colours. The other treatise is Sir Hugh Plat's "The Jewel House of Art and Nature," London, 1653. This a very mixed collection, as it includes receipts and descriptions from all the sciences. Though not entitled "secrets," these two tracts belong to the category.

In France a certain Mdlle. Marie Meurdrac published a little work

^{*}Some ascribe it to Athanasius Kircher, but that may be because a tract by him is added at the end. Internal evidence is in favour of Schott. For example, on page 272, reference is made to "our cryptography in the first book of part four of the Magia," and this reference corresponds with the Bamberg edition, iv., p. I. As to the date the chronogram with which the preface concludes would seem to point to 1661.

with the quaint title, "Compassionate and Simple Chemistry written for meritorious ladies." Of this there is a German translation by Johann Lange, Franckfurt, 1676. The collection consists chiefly of pharmaceutical and, as was to be expected, cosmetical receipts. The subject is arranged in six books, and the last is devoted specially to the preparation of those substances with which ladies at that time were wont to preserve their beauty.*

During the course of the seventeenth century some arts had so far advanced that treatises dealing with them alone began to appear. This is notably the case with metallurgy, an art which has always occupied a prominent place and has a considerable literature. Glass-making also in the seventeenth century can boast of a special literature. The German chemist Kunckel published a book on the subject at Franckfurt in 1679: a Florentine, Antonio Neri, another, of which I have the late 1686 Amsterdam edition. Of this book Christopher Merrett issued an English translation in 1662; lastly, Blancourt wrote a treatise in French of which an English translation was published in 1699 at London, under the title; "The Art of Glass. Showing how to make all sorts of Glass Crystal and Enamel. . . . A work containing many Secrets and Curiosities never before discovered." †

Another special technical treatise was that of Pietro Maria Canepario—"De Atramentis," which, though dealing professedly with ink and black colours, is much more comprehensive than its name denotes, as it includes the technology of pyrites, of vitriol, of the oil of vitriol, and of different colours. I have here two editions, the first published at Venice in 1619, and the second at London in 1660.

It must not be forgotten, however, that parallel with these empirical

^{*}In books of receipts cosmetics occupy sometimes a considerable space, but there are, besides, works specially devoted to the subject. Amongst these I may mention an exceedingly scarce work by Jean Liebaut, to whom as translator of Gesner's Thesaurus reference has been made above. It is entitled "Trois Livres de l'Embellissement et Ornement du corps humain." Paris, 1582. 8vo. pp. 16—464—16.

[†]The most recent book on the subject which I have seen is by the French chemist Peligot. "Le Verre. Son Historie, sa Fabrication." Paris, 1877. 8vo. A popular work, also from the French, was published at London in 1870, "Marvels of Glass-making in all ages." by A. Sauzay. 8vo.

books, progress was making, though slowly, in those sciences on which the successful and sound development of their applications to the arts depends. In chemistry, and especially in pharmaceutical chemistry, that is in the preparation of natural substances for use in medicine, which occupies so large a place in some of these receipt books, there was considerable advance; and, in addition, a very great impulse to technical and applied chemistry was given towards the end of the seventeenth century by Glauber and by Becher.

But, notwithstanding, the books of secrets in the eighteenth century in many cases showed a retrogression towards credulity and absurdity, for this century has a broad shadow of ignorance and superstition athwart its vaunted enlightenment. It was this ultra-rational age which encouraged such books as the "Secrets Merveilleux de la Magie Naturelle et Cabalistique du Petit Albert," and a host of similar would-be magical and cabalistical books. They are of interest only as studies in the aberration of the human mind. But even in the works of men who ought to have known better we encounter the most ridiculous and gross ideas. The French chemist Lemery made a collection of receipts which was translated into English and published at London in 1711. Its title is "New Curiosities in Art and Nature: or a Collection of the most valuable secrets in all Arts and Sciences." If any one is desirous of seeing the puerile credulity which, in the same age and country, may run parallel with an equally contemptible scepticism, let him turn to the pages of this precious compilation. Some of the collections, however, are a little more practical and more rational than the preceding, but in all of them there is a conspicuous empiricism.

A few years later, in 1723, Dr. William Salmon, a great compiler of books, issued a work containing "Choice experiments and observations on Building, Husbandry, Gardening, Mechanics, Chemistry, Painting, &c." London, 8vo. Of this I have no copy, but I have here another similar and earlier work by the same author. It is entitled "Polygraphice, or the Arts of Drawing, Engraving, Etching, Limning, Painting, Varnishing, Japanning, Gilding, &c. . . . Eighth edition." London, 1701. Though professing to deal with the arts of design it is far more comprehensive and

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includes the arts of dyeing and staining, alchemy, chemistry, chiromancy, arts of beautifying and perfuming, and so on.

I possess also two small treatises; one is without date, but belongs obviously to the last century. It is entitled "Arts Treasury of Rarities: and choice Inventions. . . . The fifth edition. London . . . G. Conyers. . . . Price 1s." This is really a book of practical receipts, including such subjects as the dyeing of cloth, silk, hair, bone, leather; gilding, lacquering; removing spots of tar, grease, oil; preserving from moths; cementing broken glass, and so on. The other is entitled "La Magie des Artistes . . . ou collettion complette des secrets utiles. . . . Harlem. . . . 1783." 12mo. This work is similar in contents to the preceding, and both are free from the absurdities already spoken of.

With the progress of the sciences and with insight into the causes of chemical and physical change, books of secrets like the preceding can no longer show any reason for existence. If, therefore, they circulate at all it is as chap books, the hawkers' reprints of Aristotle, Albertus Magnus, &c., already referred to, which have little interest from a bibliographical, and none from a scientific point of view, or else as collections of trivial receipts which are of no practical use. Any one wishing sound information on a practical matter will now go to such a work as Cooley's Cyclopædia of Practical Receipts, or Ure's Dictionary of the Arts, or to some of the numerous works on applied science and technology in which the rationale of the processes, or at least rational processess are given.* Arts and manufactures are passing more and more from the empirical to the scientific state, and to appreciate the immeasurable improvement that takes place when a manufacture is based on a rational foundation and not on mere empiricism and what is called familiarly "rule of thumb," a comparison may be made, say of Canepario's account of sulphuric acid making with the treatise by Lunge on the same subject, or the tiny chapters on iron

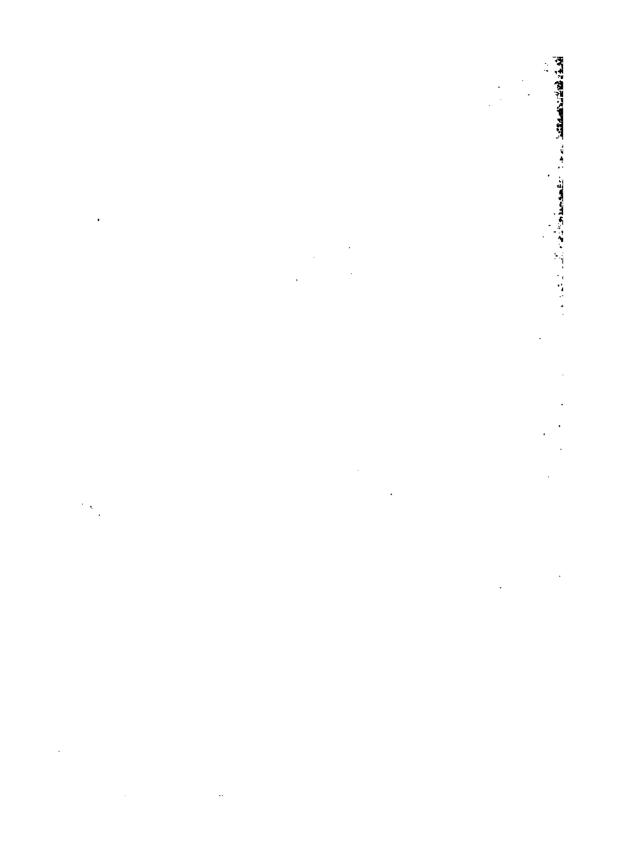


^{*}One still more recent is now to be had. Its title is "Spon's Encyclopædia of Industrial Arts, Manufactures, and Raw Commercial Products," and it has just been published in London in two volumes. The author, editor, publisher, or whoever is responsible for the advertisement of it, makes a special merit of its containing a minimum of scientific and historical details.

smelting in Agricola or Ercker, with Lowthian-Bell's Studies of Blast Furnace Phenomena or Percy's Treatise on Iron.

On another occasion I hope to communicate to the Society extracts from some of the books now exhibited, and to supplement the list with notes on other works of a similar kind, which I have not in the meantime at hand.

Postscript.—I have just become aware of the existence of a "History of Inventions," by F. S. White; but of the book I, as yet, know nothing.



ON

HISTORIES OF INVENTIONS

AND

BOOKS OF SECRETS.

BY

JOHN FERGUSON, M.A.

PART II.

(Reprinted from the Transactions of the Glasgow Archaelogical Society.)

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Printed at the University Press by ROBERT MACLEHOSE AND CO. 1896



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200 copies reprinted in 8vo, 2882. 50 copies reprinted in 4to, 2896.

NOTES ON SOME BOOKS OF RECEIPTS, OR SO-CALLED "SECRETS." PART II.

BY

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PROFESSOR OF CHEMISTRY IN THE UNIVERSITY OF GLASGOW.

[Read at a Meeting of the Society held at Glasgow, January 18th, 1883.]

To the notes communicated to the Society last session * I have made some additions, having in the interval met with several works not then referred to, besides other editions of certain of the receipt-books. As in the first part, the present notes are arranged under two heads: 1st, concerning writers on the history of inventions; 2nd, concerning books of receipts or secrets.

1st. The writers on the history of inventions are not so few as was formerly represented, and a considerable number have to be added to those already mentioned. In pursuing this enquiry I have once more encountered the difficulty of discovering a subject about which some person does not know much more than one's self. When I first threw together a few notes on some receipt-books that had passed through my hands, I had no intention of compiling a bibliography either of such books, or of those on the history of invention, but once started, curiosity drew me on to see if many books of the kind existed. Then it was I found that, so long ago as 1792, Beckmann had not only anticipated the idea of a bibliography of the history of invention, but had actually realized it to an important extent.† Apart from his undoubtedly great genius for

^{*}See Transactions of the Archaelogical Society of Glasgow, vol. ii. p. 180.

[†] Beyträge zur Geschichte der Erfindungen, Leipzig, 1792, iii. pp. 449, 559.

literary and antiquarian research in this branch of history, Beckmann appears to have had exceptional facilities at Göttingen for pursuing it, and his elaborate essays show he profited by them. The sections, however, on the bibliography of the subject are to be found only in the original German edition of his work, for the English translators and editors have omitted them, as they have done other pieces of valuable information, in the mistaken attempt to make his laborious investigations fit for popular reading.

It would be inconsistent with my present aim were I to give a translation or even an abridgement of this omitted and unknown chapter of Beckmann's history. Besides, I am not able to produce any of the works he refers to, and in these notes I am dealing only with books and editions which I have seen, and the majority of which have also been exhibited to the Society, but one or two of his remarks may be quoted and a short list given of the early histories which he describes at some length.

He begins by arranging writers on the history of inventions in five classes, viz.:—

- 1. Those who have compiled general works.
- 2. Those who have composed histories of inventions among particular peoples, or in particular countries or towns.
- 3. Those who have composed histories of inventions during particular epochs.
- 4. Those who have composed histories of inventions in particular arts and sciences.
- 5. Those who have composed the history of individual inventions, or of some few inventions.

Beckmann, reviewing these groups, says that for a certainty the writers who have contributed least to our knowledge of the subject belong to the first class. Just because they have tried to do everything, they have succeeded but indifferently—if at all—in doing anything. One can easily comprehend how to a man of the endless research and painful thoroughness of Beckmann, the second-hand learning and superficiality of some historians would be almost repulsive. Severe though the remark be, however, it is correct, for no one can devote to all discovery the labour

and time necessary to write the history of it from original investigation. On the contrary he who confines himself to special subjects and exhausts them is most likely to remove mistakes, to dissipate prejudice, to add permanently to the sum of knowledge. Beckmann's practice accords admirably with his criticism, for he has taken up separate inventions and brought together all that he knew about their origin and progress, and has thus left a great store of most curious information, which at the present time is almost entirely forgotten.

He next gives a bibliography of the history, for, as he says, no one had previously attempted it.* He enumerates ten different treatises, the first nine of which are unknown to me, though with the tenth I was already acquainted before seeing it in Beckmann's essay. The following is a brief list of these works:—

- Teatro de gl² inventori di tutte le cose, by Vincenzo Bruno. Naples, 1603. Small folio, pp. 291, besides preface and index.
- 2. De gl' inventori di tutte le scienze et arti, by Luigi Contarini. This seems to form part of a collection of essays by Contarini: Il vago e dilettevole giardino, of which various editions appeared at Vicenza and Venice from 1597 to 1683.†
- 3. De originibus rerum libellus, by Guglielmo Pastregico or Pastrengo. Venice, 1547.
- 4. Verum inventum, hoc est, munera Germania, by Michael Maier. Franckfurt, 1619.

 8vo, pp. 249. A German translation appeared at the same place in the same year.
- The history of the principal discoveries and improvements in the several arts and sciences. London, 1727.
 8vo, pp. 307. This work was translated into French, in 1767, by Marc-Antoine Eidous, and from the French into Italian, Turin, 1786.

^{*}This is not quite correct, for several of the writers mentioned by Beckmann had been enumerated by Antoine Teissier, a century earlier, in his elaborate Catalogus Avctorum qui Librorum Catalogus, Indices, Bibliothecas, Virorum Litteratorum Elogia, Vitas, aut Orationes Funebres, Scriptis consignârum. Geneva, Samuel de Tournes, 1686. 4to.

[†]Since writing the above I have got a copy of this book. It forms a small quarto of 12-488-56 pp.; it has the Aldine anchor on the title page, and was printed at Vicenza in 1589. It is, therefore, of an earlier edition than any of those mentioned by Beckmann. The work is a curious collection of historical details on a variety of topics. The essay on the Arts occupies pp. 417-431, and it is, as Beckmann describes it, the barest of lists, without order and criticism. It looks just like a set of jottings taken down while reading to help the memory, and intended possibly to be filled up afterwards. It may be added that the author calls himself *Contarino*.

- Kurze Geschichte der merkwürdigsten Entdeckungen . . . in allen Wissenschaften und Künsten. Osnabrück, 1784. 8vo. This collection was written by Beckmann himself.
- 7. Dictionnaire des origines, ou époques des inventions utiles. Paris, 1777. 6 vols. 8vo.

 The author's name was D'Origny. Beckmann speaks in a depreciatory way of this work. There is a copy in the library of the Royal Institution, London.*
- 8. Curicuse Nachricht von Erfindungen und Erfindern der Wissenschaften, Künste und Handwerken. Hamburg, 1707. 12mo, pp. 167.
- 9. Libellus de rerum inventoribus, by Johannes Matthäus. Hamburg, 1613. 8vo, pp. 76. On these writers and their works, Beckmann makes a few critical and descriptive remarks, to which I must refer those interested in the subject, as I am unable to add anything to them at present.

Respecting the tenth writer mentioned by Beckmann, some observations may be mentioned supplementary to what he has said.

The historian alluded to is Polydore Vergil,† who was born at Urbino in Italy about 1470, studied at the University of Bologna, and came to England in 1503 in the train of Cardinal Corneto. He was sent by Pope Alexander VI. to collect Peter's pence, but after his mission was accomplished remained in England, and became successively Prebendary of Lincoln, Archdeacon of Wells, and Prebendary of St. Paul's. After the long period of forty-seven years he returned to Italy and died in 1555, probably at Urbino. He wrote several books, that by which he is best known being the history of England. It aroused much controversy, and he was accused of having falsified facts and having made away with historical documents.‡ The book, however, which concerns us more immediately, De inventoribus rerum, the first of its kind,§ was printed at

^{*} Catalogue, London, 1857, p. 265.

[†]Notices of Polydore Vergil are to be found in the biographical dictionaries and histories of literature. Those, however, who wish to stir the ashes of a fiery discussion, long-ago gone out, may turn to Bayle (*Dictionaire Historique et Critique*, Rotterdam, 1702, iii. p. 2978), whose pages contain ample references to the old writers.

[‡]Tiraboschi (Storia della Letteratura Italiana, Firenze, 1810, vii. p. 1015) declines to believe this story, and Sir Henry Ellis also defends Vergil from the attacks made on him. (Three Books of Polydore Vergil's English History. Edited by Sir Henry Ellis. London, Camden Society. 1844.)

[§] There is a book by Zacharias Lilius De origine et laudibus scientiarum, printed at Florence in 1496. I have not seen any account of it, and do not know how its theme is treated.

Venice in 1498 or 1499, and it too seems ultimately to have provoked strong feeling, for it was condemned by the Council of Trent and was put in the *Index*. After the first there followed an extraordinary number of editions and translations, a few of which are given by Freytag, Grässe, and Brunet. By far the fullest list, however, was compiled by Beckmann, which, on account of its curiosity, on account of its existing nowhere in English, so far as I know, and on account of my having some of the more interesting editions to exhibit, I am tempted to quote. Beckmann keeps the chronological order for both the Latin editions and the translations—I have separated the latter for convenience of description, and have added some editions with which Beckmann was not acquainted. These are distinguished by an asterisk.

* Sine anno 1	Paris. Senant.	1536	Basil. 8 Bebelius.
* 1498 *	Venet. 4° {Christoph. De Pensis.	1537 * 1544 ⁵	Paris. 4 Stephanus. Basil. 8 Isingrinius.
1499	Venet. 4 De Pensis.	1545	Basil. 8 Isingrinius.
* 1502 3	Paris. 4 Augrain and Bignet.	1546 ⁶ 1546	Lugd. 8 Gryphius. Basil. 8 Isingrinius.
1503	Venet. 4 de Tridino.	1548	Lugd. 8
1509	Argent. 8 Schürer.	1554	Antv. 8
1512	Argent. 4 Schürer.	*15557	Basil.
Sine anno	Sine loco Schürer (?)	1557	Gandav.8
1516	Argent. 4 Schürer.	* 15587	Basil.
1516 1517	Paris. 4 Petit.	1558	Lugd. 8° {Gryphii hæredes.
1521	Basil. fol. Frobenius.	1558	Lugd. 8 Tornæsius.
1525 * 15284	Basil. fol. Frobenius. Paris. 4 Stephanus.	1561	Lugd. 12 {Gryphii hæredes.
1529	Paris. 4 Stephanus.	1563	Basil. 8 Guarinus.
1532	Basil. 8 Bebelius.	1566	Lugd. 8

¹ Catalogus Librorum Impressorum Bibliotheca Bodleiane. Oxon. 1843, iii. p. 712.

² Grässe, Trésor de livres rares, Dresden, 1867, VI. ii. p. 283. Catalogus . . . Bibl. Bodl., 1843, iii. p. 712.

³Grässe, Ibid. Brunet, Manuel du Libraire, Paris, 1864, v. col. 1136.

⁴Renouard, Annales de l'Imprimerie des Estienne, Paris, 1843, p. 29.

⁵Glasgow University Library.

⁶ Freytag, Adparatus Litterarius, Lipsiæ, 1755, iii. p. 497.

⁷ Catalogue of the General Library of the University of Aberdeen, Aberdeen, 1874, ii. p. 673.

15	70 B	asil. 12 G	uarinus.	1606	Argent.	Argent. 8		
15	75 B	asil. 8 C	il. 8 Guarinus. 1609 Genev. 8		8			
15	1576 Romæ 8			1613	Argent. 16			
1585 Rom. (?)		1618	Argent.	. 8				
15	86 Lugd.	Bat. 12		1626				
15	90	12 S	toer.	1626	Colon.	8		
15	,,	ncof. 12		1644	Lugd. Bat.		Heger	
* 16		Agripp.		1671	Noviomagi	12	Smeti	
	- 1	ene v. 16			Amstelod.	12	Elzevi	rius.
* 16	049 Sine	<i>loco</i> 16 S	toer.	1726 10	Colon.	8		
I	t was trans	slated into	the five cl	hief moder	n language	s :		
Into	French-							
	1521	Paris	fol.	1576	Paris		8°	
	I 544	Paris	8°	1576	•	i	8	
	I 544	Paris	16	1582	Paris		8	
Into	German-							
	Sine anno	Franckfurt	8°	1603	Franc	kfurt	8°	•
	1537	Augspurg	fol.	1615	;		8	
	1544	Augspurg	fol.	1624	Franc	kfurt	8	
Into	Spanish-							
	1550	Antwerp	12°	1599	Media	12	4°	
Into	Italian-							
	1543	Venice	8°	1 1587	Flore	nce	4°	
	1545	Venice	8	1592	Flore	nce	4	
	1550	Venice	12	1680	Bresc	ia	4	
Into	English, b	y Thomas	Langley-					
	1546 Jany.	Lond.	8° Grafton	(157	o ?) Lond.		8°	Tisdale.
	1546 Apr.	Lond.	8 Grafton	1659	Lond.	•	12	
	1551	Lond.	8 Grafton	1663			12	
	1562	Lond.	8	1868	New	York		

The edition of 1562 is quoted by Beckmann on the authority of Ames, Old English Printers (?), p. 275.

In spite of these 80 (?) editions and translations, Polydore Vergil's treatise is not common. Whether it is that there is no demand for it, or

⁸ Catalogue of the Printed Books in the Library of the Faculty of Advocates, Edinburgh, 1878, vi. p. 693.

⁹ Glasgow University Library.

¹⁰ It is just possible that this list contains duplicates, for, without having actual copies to collate, mistakes may be made.

that the editions are actually worn out and consumed, it is but seldom that it appears in catalogues. A further proof of its rarity is that the large libraries contain comparatively few editions, judging, at least, by their catalogues.

The Advocates' Library contains only the Cologne edition of 1600 and a Spanish translation printed at Medina, without date, neither of which is mentioned by Beckmann.

The Aberdeen University has the editions of 1544, 1555, 1558, Leyden 1644, and Amsterdam 1671.

In the Bodleian Library are the following:—Paris, without date, 1498, 1545, 1554, 1561, 1606, 1644, 1671; the Italian translation of 1545; the English of 1546; and Tisdale's, without date.

The Royal Institution has the Basil edition of 1521; the Nimwegen edition of 1671; and the English edition of 1659.

There is a fair representation of the editions in the British Museum. The following dates are taken from the catalogue in the reading-room:—1499, 1503, 1509 (this is queried in the catalogue, from which I infer that the date is obliterated or defective), 1521, 1525, 1532, 1545, 1557, 1561, 1570, 1576, 1586, 1604, 1606, 1651; Neomag. 1671; Amst. 1671. Of the translations there are the following:—French, 1521, 1544; German, 1544; Italian, Venice, 1543, 1550-1; Florence, 1587; Brescia, 1680; English, 1546, 1551, and Tisdale's. Also the edition of 1659, and the New York reprint of 1868.

Of these, I examined the 1576 and the so-called 1651 copies, and three of the English versions. That of 1576 is the authorised Papal edition.* It is a small 8vo, printed in italics, and contains 48—478—2 pp. It has a notice: Gregorius Papa XIII. ad futuram rei memoriam, explanatory of the origin of this revised and expurgated version.

As the 1651 copy purports to have been printed at Amsterdam by Daniel Elzevier, and as I had seen no reference anywhere else to such

^{*} No other is allowed: "Nisi fuerit ex impressis ab anno 1576, juxta editionem Roma factam jussu Gregorii XIII. App. Ind. Trid." Index Librorum Prohibitorum, Romæ, 1758, p. 286.

an edition, I examined the Museum copy, and found, as I anticipated, that it was not really printed in that year. In the first place, the name of Daniel Elzevier, as a printer, did not appear by itself till 1664; in the second place, neither the author of the "Essai" nor Willems mentions any copy of Vergil as printed by Louis Elzevier in 1651. In the third place, the actual copy does not agree with itself: on the engraved title the date is apparently 1651, but on the printed title the date is apparently CID IDC LXII. Closer inspection, however, shows that in the first title 7 has been scraped out and 5 written in, and in the second title that an x has been scraped out and 1 written in. In short, this volume—which bears the book-plate of Mr. Le Cher. De Fleurieu—is merely a copy of the 1671 edition with the dates altered. What could have been the object in altering them, it is hard to say, but at any rate the thing has been clumsily done.

Sir Henry Ellis is the only authority who, I have since found, mentions this 1651 edition. His list contains some twenty of the editions, but it is not very accurate. He gives a Leyden edition of 1544, and an Amsterdam one of 1571, which dates are doubtless misprints for 1644 and 1671 respectively. He also quotes editions by Daniel Elzevier, 1651 and 1662. As both these dates are impossible, and, curiously enough, are the dates on the British Museum copy, I have little doubt that they have been taken from it. The quotation of them, therefore, by Sir Henry Ellis, merely proves that this copy has been in the Museum for the last forty years, and that its spurious dates have hitherto escaped detection.

From my own and the University collections I am able to put before you a not less interesting, and with the exception of the Museum's, a larger series than any of the preceding. Comparison of these works enables me also to point out some variations in the current descriptions of some of them, which may be of use to those who may hereafter examine the editions more minutely than I am able to do at present.

There is here a copy of the edition of 1499 which is usually called the first. It is the only edition mentioned by Hain (*Rep. Bibliogr.* No. 16008), by Beckmann, who, however, does not appear to have ever seen

it, and by Freytag.* But Grässe, as we have already seen, quotes an edition of 1498 by the same printer, and gives besides the price of a copy, and there is apparently a copy in the Bodleian Library. On the other hand, Panzer (Annales Typographici, Norimb. 1796, vol. iv. p. 451, No. 2355) says: spuria est hace editio; and again (vol. iii. p. 456, No. 2495) he calls the 1499 edition: unica Seculi XV. In face of such opposing statements, and in the absence of opportunity for comparing the 1498 and 1499 editions, it is impossible to say whether there are really two editions or not. I confine myself, therefore, to facts and offer the following description of the edition of 1499:—

F. 1r Title: POLYDORI VERGILII VR | BINATIS DE INVEN | TORIBVS RE- | RVM LIBRI | TRES. | F. 1v Polydori Vergilii Vrbinatis ad Lodouicum Odaxium | Patauinum Præsatio. | The presace ends on f. 3v, followed by the table of contents which ends on f. 6v, followed by the words LAVS DEO. | F. 7r with sig. b, POLYDORI VERGILII VRBINATIS DE | INVENTORIBVS RERVM LIBER PRI- | MVS INCIPIT. | F. 88r Polydori Vergilii Vrbinatis de Inuentoribus rerum opus | Magister Christophorus de l'ensis impressit Venetiis An | no humanitatis Christi. M.CCCC.LXXXXVIIII. | Pridie Kalendas Septembris. |

It is a small quarto printed in Roman character, with signatures a⁶, b-k⁸, l¹⁰; 88 leaves in all, with 29-30 lines in a page.

The next copy is from Sir William Hamilton's collection, and is of the edition of 1503. It also was printed at Venice, but by Joannes de Cereto de Tridino. It is very nearly an exact reproduction of the preceding.

The following is an account of it:-

F. Ir Title in black letter: A | Pólydóri Vergilii Vr- | binatis de inuento | ribus reruz | li | bri tres. | F. Iv Polydori Vergilli (sic) Vrbinatis ad Ludouicum Odaxiū Pa- | tauinum Præsatio. The presace ends on f. zv. The table of contents then begins: Polydori Vergilii Vrbinatis de Inuentoribus rerum. | Capita primi libri: | and ends f. 6v LAVS: DEO | F. 7r with sig. b, POLYDORI VERGILII VRBINATIS DE IN- | VENTORIBVS RERVM LIBER PRIMVS IN- | CIPIT. | Ends f. 81v T Impræssum Venetiis per Iohannem de Cereto de Tridi- | no alias Tacuinum. Anno domini. M.CCCCC.III. Die De | cimotertio Iulii. |

It is a small quarto, printed in Roman character, with signatures a6,

^{*} Freytag, Adparatus Litterarius, Lips, 1753, ii. p. 1244.

b—k⁸, l⁴; 82 leaves in all, of which No. 82 is blank; 29-30 lines in a page.

The first of the German editions, and the next in order, was printed by Matthias Schürer at Strasburg in 1509.* I have a copy here; the title page is as follows:—

POLYDORI VERGILII | VRBINATIS | DE | INVENTORIBVS | RERVM LIBRI | TRES. |

M. ANTONII SABELLICI DE AR | TIVM INVENTORIBVS | ad Baffum carmen | elegantissi- | mum. | AD LECTOREM. | Grammatice, Orator, Poeta, Philosophe, Medice, | Iurisconsulte, Theologe, quisquis demū | es, Polydorum legito, vt prima | tuæ artis incunabula, | ab ipsa (vt aiunt) | stirpe agno | scas. |

At the end: Argentoraci, in officina Matthiæ Schürerij Helue- | tensis. Art Doct. Mense Decembri. | Anno. M.D.VIIII. | REGNANTE CAES. | MAXIMILIANO |

P. F. AVG. |

It is a small quarto, with six preliminary leaves unnumbered, and LXVI. leaves numbered. It has headlines and signatures, but no catchwords, and it is printed in Roman character.

These three earliest editions contain only the first three books of the history of inventions. The remaining five books did not appear till the edition of 1517, of which, however, I have no copy, and have observed no description. Thereafter the different editions which I have seen contain the whole eight books.

This is the case, for example, in that printed by Stephanus at Paris in 1528-29, about which Beckmann gives no particulars, and of which the British Museum and Bodleian have no copies. The title page states that it contains the three books of the former edition revised and enlarged by the author, and in addition five books relating to the history of Christianity and the religions of other nations. To this edition there is prefixed a letter dated 1517, from the author in London to his brother in Urbino, which tells us how it was he came to England, and how he wrote his history at the request of Henry VII. This curious letter is not contained

^{*} This edition is described by Freytag, Adparatus Litterarius, Lips. 1753, ii. p. 1244. He says: "Hac editio satis rara, et nisi fallimur, omnium prima est, que in Germania lucem vidit." He points out that it was unknown to Maittaire, and goes into a number of other details, for which I must refer to the article itself.

in any of the later editions which have come before me, and it gives Stephanus' edition a peculiar value.*

Of the remaining copies, two printed at Basil by Isingrinius in 1544 and 1546 respectively have nothing specially interesting about them, and the same may be said of the Italian translation of 1550. All three are in italics, and as specimens of printing are well enough. The 1544 edition is not mentioned by Beckmann. The copy here is from the University Library. From the same is a copy with date 1604. It was printed by Stoer, but where is not said. Beckmann specifies a Geneva edition of the same date, but whether these two are identical I do not know. Stoer's edition, besides containing Polydore Vergil's eight books, has also Sardi's tract, to be referred to below, and extracts from Pliny and other writers on the history of inventions. It forms a fat little volume in 16mo. From the Hamilton collection I have a copy of the Cologne edition of 1626. This is a reprint of the 1576 edition, and, on the title, purports to agree with that licensed by Gregory XIII. It also contains Sardi's tract.

Two more of the Latin editions are here. The first is that printed at Leyden in 1644 by Hegerus, and the other is the Elzevier edition of 1671, both in 12mo, both with the same very curious engraved title, illustrative, so far as I understand it, of the influence of printing. About the value of this edition of Elzevier's opinion is divided. One writer says it is the only one sought after by the amateur, whereas Willems says frankly:—"L'ouvrage est assez peu recherché et n'a qu'une valeur médiocre," an opinion which was expressed in similar terms some sixty years earlier by the author of the anonymous work on the Elzeviers. Whether this be so or not, the edition is not one of the least costly; though at the same time it is one of the least readable. I

^{*} Two editions were issued by Stephanus; the first, containing three books, has the date 1528; the second mentioned above has 1528 on the title, but in the colophon: 1529, VI. Idvs Ianvar. See Renouard, *Annales ... des Estienne*, Paris, 1843, p. 29, No. 21, and p. 32, No. 24.

[†] Biographie Universelle, Article Polydore Vergil.

[‡] Essai Bibliographique sur les Editions des Elsevirs, Paris, 1882, p. 115. It is No. 1464 in Willems' Catalogue—Les Elsevier, Bruxelles, 1880, p. 375, where also Hegerus'

I have still three copies to exhibit, which are for us perhaps the most interesting of all.

One is a copy of the first English edition printed by Grafton in 1546; it is mentioned but not described by Ames. It is unnecessary, therefore, to apologise for the following account:—

¶ An Abridgemēt of the | notable worke of POLIDORE | VERGILE conteygnyng the deui- | sers and first finders out aswell of | Artes, Ministeries, Feactes & | ciuill ordinaunces, as of | Rites, & Ceremonies, | commonly vsed | in the chur- | che: and | the | originall beginnyng of | thesame. Compē- | diousely ga- | thered by | Thomas Langley. | ¶ IMPRINTED AT LONDON | vvithin the precincte of the late dissol- | ued house of the grey Friers, by Ri- | charde Grafton Printer to the | Princis grace, the .xxv. daie | of Ianuarie, the yere of | OVR LORDE, | M.D.XLVI. | Cum privilegio ad impri- | mendum solum. |

It is a small octavo, printed in black letter; has 8 preliminary leaves, with signature A, containing title and preface to Sir Antony Denny. On the verso of A8 is a woodcut:—the Prince of Wales' feathers, coronet and motto, with initials E. P., all surrounded by a glory or tongues of flame; text, clvi leaves numbered; on the verso of clvi is Grafton's emblem of a grafted tree growing up through a barrel or tun; table, to leaves not numbered, with signatures b v to c vi; the imprint on the title-page is repeated on c vii. This copy seems to want the last leaf, which may contain the emblem repeated. The pagination is somewhat irregular on two or three sheets.

The copy now before me is from the Euing collection, and is in very fine condition. It has a note on the fly-leaf, signed with the initials "J. O. H.," stating that copies of the January issue of 1546 are much rarer than those of April, and that in the British Museum there are two copies of the latter, but none of the former. My observation, on the contrary, is that the Museum has a copy of this edition, but that it is imperfect, wanting A8 and all after x iiii of the table at the end. There is in the Museum a copy of the 1546 edition, with January on the title-page and April in the colophon. This again differs in some

edition is referred to as an antecedent in the Elzevier style. The Nimwegen edition of 1671 seems from Freytag's account to run these very close in typographical neatness, but I have not seen it.

details from the edition which has April on the title, and a description of which is given by Ames. To his account, as I have no copy to show, I must refer those who wish to compare it with the first issue.*

Five years later Grafton printed another edition, which is described by Ames, Typ. Ant. III., p. 474, No. 1504. I have a copy here:—

An abridge- | ment of the notable worke | of POLIDORE VERGI- | LE conteinyng the deuisers and | first finders out aswell of Artes, | Ministeries, Feactes and ciuil | ordinaunces, as of Rites, | and Ceremonies, com- | möly vsed in the chur- | che: and the original | beginnyng of the- | same. Compen- | diously ga- | thered | by | Thomas Langley. | 1551. | Mense Iulij. |

It is a small octavo, printed in black letter; has 8 unnumbered leaves, containing title, dedication, and Grafton's device of the seven liberal arts; text, cxxxv numbered leaves, which number, however, is a printer's blunder for cli, followed by 6 leaves of Table, not numbered, and a seventh leaf with this colophon:—

Imprinted | at London, by Ri- | chard Grafton, Prin- | ter to the Kynges | Maiestie. |

Anno. 1551. | Cum privilegio ad im- | primendum solum. |

and Grafton's device again on the reverse. The folio-numbering, as before, is a little irregular.

In his account of this edition Ames, with his editors Herbert and Dibdin, makes statements which do not tally with the copy here. He says it "contains 155 leaves besides the preface and a table at the end"; the same thing is repeated by Lowndes, but, nevertheless, I believe they are all wrong. Owing possibly, to the last leaf being misnumbered 135, while the previous one is 150, they seem to have assumed that the correct number is 155. If their copy contained really 155 leaves and was otherwise similar to the one before us, there must have been four leaves interpolated. The signatures, however, in my copy are quite regular and run direct from the text into the index, so that there is no room for extra leaves. From the imperfect collations in the Typographical Antiquities, it is impossible to tell how many leaves not numbered a book may contain.

^{*} Typographical Antiquities, edited by Dibdin, Lond. 1816, 4to, iii. p. 431, No. 1462.

Of the last of these editions I have a copy from the University Library. It also is described by Ames, Typ. Ant. IV., p. 350, No. 2463. The following is an account of it:—

An abridge- | mente of the Notable | worke of Polidore | Virgile. | Conteining the deuisers and fyrste | fyneders oute aswell of Antyqui- | ties, Artes, Ministeries, Feactes | and ciuill ordinaunces [as] of the | Rites, and Ceremon[ies co]m- | monlye vsed in the [chur] | che: and the original | beginning of the | same. | Compendiouslye gathered | and newlye perused | by Thomas Langley. | *

The title is enclosed in a border. It is a small octavo, printed in black letter, has 8 leaves not numbered; clii leaves numbered, and Table 14 leaves; on verso of last leaf of table is the colophon:

Imprynted at | London by Ihon Tisdale | dwellyng in Knight | riders streate, neare to | the Quenes | Wardrop. | with a figure below.

Folio 15 contains Tisdale's device: a drawing of Abraham sacrificing Isaac, with the angel and the ram.

The title of this edition, it will be observed, differs in one or two points from those already given, so that when Ames quotes merely the first few words and adds, "as in vol. iii., p. 451," meaning by that the same as the 1546 edition, he is wrong. In other respects his account tallies with the copy before us.

It is perhaps superfluous to remark that like early printed English black-letter books in general, these different editions have become scarce and valuable.

In the year 1663 there was published an edition of Polydore Vergil's works, edited by J. Langley, which I have not seen. The text of this edition, which is apparently modernized, was made the basis of a reprint (limited to 120 copies) by the New York Agathynian Club, of whose transactions it forms No. 2. It was printed at New York in 1868, and forms a handsome volume. The editor, W. A. Hammond, gives a short account of Vergil, but he does not seem to have been aware of the very great number of the editions, or to have seen any of the early English copies.

^{*}The copy from which this title is taken has a defect in the title-page, which is represented by the portions enclosed in square brackets.

It is impossible to look at the unprecedented number of editions of Polydore Vergil's work without trying to assign a cause for it. Doubtless the novelty of the subject, the boldness of the author, and his suspected orthodoxy were the main attractions, for it was the first attempt to write the history of the invention of the arts and sciences and to trace the growth of religious ceremonies; and though the information is not, and indeed could not be very well digested, it was a great help to scholars to have it brought together in any form.* The dedication quoted above in Schürer's edition "to the reader, whatever he might be," is probably the true explanation of the popularity of the work. Before parting with the author for the present, I would say that if one had ample opportunity for following it out, a complete bibliography of Polydore Vergil's work would be interesting and curious, and well worth the trouble of compiling.

We may pass now to some other historians of the arts, for Beckmann's list of ten does not include the whole of them. Teissier, already referred to, besides several of those quoted above, mentions Gilbertus Cognatus, who wrote a tract on inventors, printed at Basel in 1547.†

Another was written by Alessandro Sardi or Sardus, who was born at Ferrara about 1520, and died there March 26, 1588. He was a keeper of the archives, and spent a retired and laborious life of study, which was his sole passion. His tract is entitled, "De rerum inventoribus Ll. 11. ... iis maxime quorum nulla mentio est apud Polydorum, n. pr. in lucem editi." It first appeared, along with another work of the author, "De ritibus gentium," at Mayence in 1577, and is not in the first edition of that work printed at Venice in 1557. It was afterwards printed along with Vergil's work, and it is contained in the 1604 and 1626 editions already shown, and in the Nimwegen 1 and some other editions as well. Of this work there is here a French translation by Gabriel Chappuys, printed at Lyons in 1584, and forming a small thin volume. I have

‡ Freytag, Adp. Litt., Lips. 1755, iii. p. 499 and p. 286.

^{*}Tiraboschi (Storia vii. p. 1015) is rather hard upon the work. He calls it "libro che mostra la molta erudizione, e insieme la poca critica e la credulità del Vergilio."

[†] It was also reprinted with Polydore Vergil in the 1626 and possibly other editions.

not noticed this translation in any of the bibliographies or library catalogues which I have consulted.

Exactly a century after Polydore Vergil's history, appeared that of Guido Pancirollo. The author was born at Reggio, April 17, 1523, and became professor of law at Padua, and afterwards at Turin. He died June 1, 1599.* He wrote a number of works on law and other topics, and in addition the one connected with our present subject. It is entitled

Rerum Memorabilium libri Duo: quorum prior deperditarum, posterior noviter inventarum est. Ex Italico Latine redditi & notis illustrati ab Henrico Salmuth.

The Italian, if it exist, must be in MS., for I have not noticed any printed edition of it. The Latin passed through several editions; the following dates may be given:—Amberg, 1599-1602; 1607-8, 2 vols. 8vo, 1629; Franckfurt, 1617, 2 vols. 8vo; Franckfurt, 1630, 1631, 1646, 1660, all in 4to; Leipzig, 1707.

It appeared in French, translated by Pierre de la Noue, and titled: Les antiquitez perdues, Lyon 1608, 8vo, Lyon 1617, 12mo; in Italian: Venice 1612, 4to; and in English: London 1715, 2 vols. 12mo, and 1727, 2 vols. 12mo.

Of the different editions, I have seen those of Franckfurt, 1631, 1646, and 1660 in Latin, and the 1715 English translation. The first three all belong to the same edition, but in re-issuing the book with new dated title-pages, four pages have been omitted in the first part, and eight in the second. The edition of 1631 is therefore the most complete. Pancirollo's work is interesting, not only as giving some notion of the state of knowledge as to the history of invention in his time, but as displaying the attitude of scholars towards the practical arts of the ancients.

There seems to have been a belief last century that the claims of the ancient world to practical skill and scientific invention had received

^{*}An account of Pancirollo and a list of his works are given by Niceron, Memoires des Hommes illustres, Paris, 1729, ix. p. 183.

but scant justice at the hands of most writers. To vindicate the reputation of the ancients in this field of human effort was the occasion of the publication by Louis Dutens of a work entitled Origine des découvertes attribuées aux Modernes. Dutens' work first appeared at London in 1769 in 8vo; thereafter in French, at Paris, 1776, 2 vols. 8vo; London, 1796, 4to; and again at Paris, 1812, 2 vols. 8vo; and it was published in Spanish at Madrid, 1792, 4to. Of these, the first is in the Hunterian Library, and the third in the Hamilton Collection. The author does not restrict the field he traverses, but endeavours to show, from allusions in ancient writers, and remains of the works of the ancients, that many things which were supposed to be entirely of modern origin, were really well known to the ancients. However easily such a thesis might be maintained in Dutens' time, it is not one which could even be thought of at the present day, and yet we know far more of the knowledge and practical skill of the ancients, and can estimate it more correctly and value it more highly than could be done by Dutens, or any of his contemporaries. The fact is, however able the ancients may have been, they could not have had the practical inventions of the present day; and the same remark is true even for Dutens' time. Ignorant of the composition and properties of matter as Europe was a hundred years ago when compared with to-day, it still knew more than the ancients, and that knowledge caused discoveries to be made which were beyond the power of the ancient world to conceive. To do Dutens justice, however, it should be admitted that, though he has short chapters on the invention of glass, of acids, of alkalies, of distillation, and some other technical subjects, his work is mainly an attempt to show that philosophical and moral and social ideas were to a large extent anticipated by the ancients—a point which can be more readily granted. withal, Dutens' book is feeble. It is a gentle ground-swell after the Temple-Wotton-Bentley hurricane of the previous century.

A book of a more purely antiquarian and historic character had been composed by Rollin about the beginning of last century. It forms part of his great treatise on the ancients, and was contained in the complete English translation published in 1736. Afterwards it was printed

separately, but was almost lost sight of, till it was reprinted at Glasgow in 1837. It is well known as Rollin's "History of the Arts and Sciences of the Ancients." Like the work of Goguet formerly mentioned, both Dutens' and Rollin's investigations have been completely superseded. The works of Dutens and Goguet, however, have one merit at least; they contain good lists of the authorities cited.

It is hardly necessary even to refer to an essay by David Hume on the "Rise and Progress of the Arts and Sciences." This title promises much, but the performance is so disappointing that it is useless to include it in a list of writings on the subject. It may, therefore, be passed over.*

Long as the list of historians has become, and it is still incomplete, I see no cause to alter my opinion that the history of invention is still to write. One may even go farther and say that the history is now so immensely more difficult to grasp, that one may despair of ever seeing it written. Interesting as it is, it has become too technical and scientific ever to attract the unskilled reader, and there are—at the present time at all events—no skilled persons willing to sacrifice the practice of the arts to recording their progress; but if the history of invention and discovery is in future attempted, it must—if it is to be of any value—take one or other of the limited shapes formulated by Beckmann a hundred years ago.

and. Turning now to the collections of Secrets, or the Receipt-books themselves, there are a few new ones here to be seen, as well as some other interesting editions of those already mentioned. They may be taken, as formerly, in chronological order.

A new edition of the work of Theophilus † is now publishing in Vienna. It forms one of a series of original works illustrative of the history of art and of the technical part of art during the Middle Ages and Renaissance.

^{*} Among the arts, by far the most important in Hume's eyes were polite conversation and gallantry, if we may judge by his devoting eleven pages out of thirty-one of this essay to accounting for their probable origin. Had he but lived to read the letters collected and edited by M. de Laclos, he would have deplored their having become exact sciences, as being "not half so valuable," to quote his own words.

⁺ Transactions, ii. p. 183. [Reprint, 1896, Part I. p. 7.]

The first division appeared in 1874 under the title, "Schedula Diversarum Artium," edited by Albert Ilg, who has prefixed a long account of the different manuscripts, and discussed a number of questions as to Theophilus and his treatise. It contains a critical Latin text, with various readings, and a translation into German. The second division has not yet appeared, so far as I know.

The same series contains another monkish mediæval treatise, also edited by Ilg, and published at Vienna in 1873. The author lived between the 8th and 10th centuries, and his work is entitled "Heraclius de Coloribus et Artibus Romanorum." It does not confine itself, however, merely to colours and their preparation, but includes illumination, gilding, niellowork, and other kinds of art.

On the previous occasion reference was made to the "Speculum" of Vincent de Beauvais as the biggest book of the Middle Ages, but no visible proof of the fact was forthcoming. By the two volumes now shown, which contain the "Speculum naturale" only, and make up but a fourth ' part of the entire work, every one can judge by very simple inspection, that if it be not the biggest, it must be very near it. Although these volumes do not bear any date or imprint, they are known to have been printed by Johann Mentellin, the first printer at Strassburg, about the year 1473. The "Speculum historiale," which I have also, and which is bound in two even larger volumes, has Mentellin's imprint and the date 1473. In any case the book is a magnificent specimen of fifteenth century work, whether as regards the paper, the type, the ink, or the impression. But, besides, no one can look at it without being awestruck by the enormous labour of the author, and the patience and conscientiousness of the printer. It is a matter of surprise how Hain, who is usually so accurate, has altogether passed over the different fifteenth century editions of Vincent de Beauvais' work. * One is, in consequence, deprived of the

^{*} Hain (Repertorium Bibliographicum, I. i. p. 358) gives "Bellovacensis (Vincentius) v. Vincentius Bellovacensis," but on turning to vol. II. ii. p. 494, where Vincentius ought to be, the name is wanting. Hain must have forgotten the cross reference entirely. Cornelius a Beughem (Incunabula Typographiae, Amst. 1688, p. 143) gives a short notice of Vincentius, and mentions several editions of the work, but does not specify that of

opportunity of comparing collations with him, and thus of ascertaining whether all the copies are alike; but, in consequence, a description of the book is all the more necessary, as I am not aware of any in English. The following applies to the present copy:—

- Vol. I. F. 1r, col. 1, Incipit speculū naturale Vincentij beluacēss | fratris ordinis pdicatorum. Et primo plogus d' | causa suscepti opis et eius materia. Primū | This contains the prologue and contents of the whole 33 books and occupies from f. 1 to f. 21, verso, ending on col. 1, line 42. F. 22r, col. 1, 'i' De diuersis mūdi acceptionibus. Ex | libro qui dicitur imago mundi. The volume ends on f. 368v, col. 2, which has only 13 lines. The two concluding lines are: quo pacto simul omes eo quo venerant agmine | redeunt. |
- Vol. II. F. 1r, col. 1, 'xxxix' Continentia libri deciminoni. | to f. 8v, col. 1, line 25. F. 9r, col. 1, 'j' De opere sexte diei. Et primo de anima | libus. Guillerinus de conchis. | The volume ends on f. 327v, col. 1, which has 27 lines. The two concluding lines are: perstricta sunt. sed latiore in fine speculi hystorialis. ppatescunt. Amen. |

It is in large folio, semi-gothic character, double columns, with 66 lines each, and it has no numbering of leaves or pages, no signatures, catchwords, place, date, or printer's name.

Of Mentellin's edition there is a copy on vellum in the National Library, Paris,† one (I presume on paper) in the Bodleian Library,‡ and one in the

Mentellin's. He calls the Speculum "ingens opus." Watt (Bibliotheca Britannica, ii. 935) calls it "a work of vast labour, and the largest perhaps printed in these primitive times." It is curious that Watt should have used such a phrase when speaking of the year 1473.

^{*} As it is impossible without special types to give the contractions of the original, italic letters have been used merely to show where contractions occur.

[†] Van Praet, Catalogue des livres imprimés sur vélin de la Bibliothèque du Roi. Paris, 1822, iv. p. 290. No. 451. As this work contains the only actual collation of a copy which I know, for Burnet (Manuel de Libraire, 1864, v. col. 1253) simply repeats Van Praet, errors and all, I may remark that the collation agrees in every respect with my copy except in three points. Two are minute: in vol. I., f. 22r, col. I, line 6, Van Praet gives architiques for archetiques in the original; in vol. II., f. 9r, col. I, line 1, Van Praet reads, "ij De opere sexte diei," for "j De," etc. The third is all-important: Van Praet says the first volume contains 318 leaves, which is repeated by Brunet. This is certainly wrong; my copy contains 368 leaves. Leaf 318 falls about the middle of Book 16, and the volume contains 18 books, as Van Praet himself says.

[‡] Catalogus ... Bibliotheca Bodleiana, Oxon. 1851, [Suppl.] p. 964.

British Museum. I have not observed a copy in the catalogue of any other library which I have had an opportunity of consulting.

In the Hunterian Museum I have found a copy of another edition of the Speculum naturale.

- Vol. I. F. 1r, Headline: Prologus | F. 1r, col. 1, Incipit speculum naturale Vincentij be- | luacensis fratris ordinis predicatorū. Et pri | mo prologus de causa suscepti operis et eius | materia. Ca. Primum. | The prologue ends on f. 4r, col. 2; the contents of the thirty-three books then begin and go down to f. 18v, l. 38, the matter being equally distributed between the two columns; then last line: Registra Expliciunt. | F. 19 blank. F. 20r, Headline: Liber Primus | F. 20r, col. 1, De diuersis mūdi acceptõibus Ex libro | qui dicitur imago mūdi. Ca. 1. | Vol. ends f. 317v, col. 2, l. 20: eo quo venerant agmine redeunt. | f. 318 blank.
- Vol. II. F. 1r, col. 1, Cōtinētia deciminoni libri | ends f. 7v, col. 1, line 21.
 F. 8r, Headline: Liber Decimusnonus | F. 8r, col. 1, De opere sexte diei.
 Et primo de animali | bus. Guillerinus de conchis. C. 1. | Vol. ends f. 28or, col. 2, l. 55. The last two lines are: stilo pstricta sunt sed latiore in fine speculi hystorialis | perpatescunt Amen. | F. 28ov. blank. Is there a leaf, 281, containing the register? If so, it is awanting.

This edition is in large folio, Gothic character, double columns, 67-69 lines in each, besides headlines to each page; there is no numbering of leaves or pages, no signatures or catchwords, no date, place, or printer's name. It is a splendid book, but hardly equal to Mentellin's.

For the present I omit Albertus Magnus, of whose work, De Secretis, I might show several editions, but a passing reference may be made to one of its modern adaptations alluded to at the close of the former part. It is in Dutch, and bears this title: "De Wonderbare Geheymen, van den groote en klyne Aalbert in 3 deelen," Paris, 100,000. It appears to have been at one time sewn up round the outer margin, but whether to prevent the wonderful secrets getting out of it, or a prying police getting into it, may be left undecided. It seems, however, from the apparently fictitious place, and certainly fictitious date, to have been sold under some sort of supervision or restriction. It is difficult to see the reason for this, for the book contains such gross nonsense that the wonder is, how it could find a purchaser at all.

We may pass, therefore, to a more important person, Bartholomew

Glanville,* of whose work, De proprietatibus rerum, I have found six copies in the Hunterian Museum—two printed, and four in manuscript. It may be observed here that the previous statement, on page 186 (Reprint, 1896, Part I. p. 9), to the effect that the first edition of the work appeared in 1478 is not correct. The first edition with a date is of 1480, referred to in the note on the same page. The copy there mentioned is a particularly fine one, and it corresponds with the account of the book as given by Hain. One of the Hunterian copies is of 1482, and corresponds with Hain's No. 2503. Hain, however, had not seen a copy of it, for he gives no collation, and his account is obviously copied from some other writer. The following, therefore, may be useful as filling a gap in the list of fifteenth century books:—

Folio 1, which is blank, is awanting. F. 2r, with sig. a2, Incipit phemium de pprietatibus rerū | fratris Bartholomei āglici de ordine fra | trum minorum. The book ends on f. R11r, Explicit tractatus de pprietatibus rerū | editus a fratre Bartholomeo anglico or- | dinis fratrum minorum. Impressus sub | anno domini Millesimoquadringentesi- | mooctuagesimosecundo. die vero decem- | bri x. | Finis. | Laus deo. | f. R11v blank. f. R12r, Registrum |

It is a small folio, printed in Gothic character, with headlines, and signatures a—q, A—R, 278 leaves in all. It is without pagination, place, or printer's name, and without catchwords. It is in two columns, with 54-55 lines in each, and headlines. This is not quite so fine a book as the previous edition of 1480.

The second Hunterian copy is the English translation reprinted by Berthelet. The title page is as follows:—

ANNO M.D.XXXV. | BERTHOLOME | VS DE | PROPRIETATI | BVS | RERVM. |
LONDINI IN AEDIBUS THO- | MAE BERTHELETI RE- | GII IMPRESSORIS. | CVM
PRIVILEGIO A RE- | GE INDVLTO. | At the end:

^{*} In Trans. ii. p. 186, the author's name is misprinted Granville. In Stirling's Library there is a copy of the 1488 edition which I have not collated. In Trinity College, Cambridge, there is a copy of Koburger's edition, 1492. See Catalogue of the Fifteenth-Century printed Books in . . . Trinity College, Cambridge, by Robert Sinker. Cambridge, 1876, p. 32, No. 122. For very full lists of the editions both of Albertus Magnus and of Glanville, reference may be made to the Rabelaisian work of James Atkinson: Medical Bibliography, London, 1834.

Tendlesse grace, blysse, thankynge, and | praysinge vnto our lorde god Omnipotent | be gyuen, by whose ayde and helpe this | translatio was ended at Berkeley the .vi. | daye of Feuerer, the yere of our lorde. M. | ccc.lxxxxvii. the yere of the reyne of king Rycharde the seconde after the Conqueste | of England. xxii. The yere of my lordes | age, syre Thomas lorde of Berkeley, that | made me to make this Translation. xlvii. | And printed by me Thomas berthelet, the | xxvii. yere of the most victori' reine of our | mooste grations (xic) soueraygne lorde kynge | Henry the viii. | Finis. |

It is a small folio, printed in black letter, with 8 preliminary and CCCLXXXVIII numbered leaves, double columns, 50 lines, and headlines. The numbering is irregular. This is a beautiful book, and probably well deserves the encomium passed on it by Lowndes, that it was the finest work executed by Berthelet.

The manuscript copies are all on vellum. Three are in Latin, in double columns, with coloured capitals and conventional scroll ornaments. The fourth is a copy of Jean Corbichon's French translation, of which the first edition, with a date, was printed in 1482. The MS. is in large folio, double columns, with illuminations, and delicate sketches for others which the artist never finished.*

Old manuscript receipt books may occasionally be met with. They contain usually very miscellaneous matter; the commonest are collections of practical, medical, and cookery receipts. There are three such collections here. One is a small volume in Italian and French, written on paper in a very beautiful and almost microscopic hand. The second is a collection of medical and pharmaceutical receipts in German, written in various hands, and belonging apparently to the 17th century. The third is in English, and is concerned with chemical receipts. It is of date 1649.

Of the printed collections referred to in the first part of this paper, I am able to show some other editions.

In the Hunterian Museum there is a fine copy of Gohory's translation of Levinus Lemnius' De Secretis. The title may be given in full:—

Les | Occvltes | Merveilles et | Secretz de Natu- | re, auec plusieurs enseigne- | mens des choses diuerses tāt | par raison probable que par | coniecture artificielle: expo | sées en deux liures de non | moindre plaisir que proufit | au lecteur

^{*} I observe Dibdin mentions this MS. Northern Tour, Lond. 1838, ii. p. 735.

studieux. | Par | Leuin Lemne Medecin Zirizeen, & | nouvellement traduit de Latin en | François, par I. G. P. | Auec deux tables, l'vne des argu- | mens des chapitres, l'autre des | singulieres matieres d'iceux. | A Orleans, | Par Pierre Trepperel. | 1568.*

It is a 16mo, with 17 leaves not numbered, and the eighteenth numbered 18, 250 numbered, and index, 20 not numbered. The title is enclosed in a woodcut border. I. G. P. is the translator's usual method of indicating himself: "Jacques Gohory, Parisien." This, like Gohory's other works, is a very rare book. Of Levinus' work in Latin, there is a copy of the Antwerp edition of 1581 among Sir W. Hamilton's books, now in the University Library.

In addition to the different copies of the Treasure of Evonymus, formerly mentioned, I can now show the first edition of Zurich, 1554. It is a very elegant book, much superior to any of the subsequent editions I have seen.

Of the Secrets of Alexis, which was once so popular a collection, three copies may be added to those formerly shown. One is of date 1560, and was printed at Basil by Perna; the second—from the Hamilton Collection—at the same place, in 1563; and the third is a German translation, printed in 1573, without place or printer's name. These three all bear to have been edited by Johann Jacob Wecker, who subsequently compiled a more systematic work on Secrets. In 1616, at Basel, Wecker published a little volume in German, entitled Kuntstbuch ein nutzlicher Büchlein von mancherleyen künstlichen Wassern, ölen und Weinen. The waters, oils, and wines for preparing which Wecker gave these receipts, were intended for medical purposes chiefly.†

There is an Italian version of Meurdrac's chemical receipts, and there are here also two editions of Neri's Art of Glass, one in Latin, Amsterdam, 1668, and a German translation by Geissler, Franckfurt, 1678.

A reprint of Gabriel Plattes' Discovery of Subterranean Treasure, with

^{*} On p. 187 above [Reprint, 1896, Part I. p. 10], it is said erroneously to have been printed at Paris.

[†]Wecker was born at Basle in 1528, learned and afterwards taught medicine there, but removed to Colmar in 1566. He compiled several works, and his wife wrote a cookery book.

additions, was published at London in 1738, and another volume of Metallurgical Secrets, translated from the German of Silberman into French, at Paris in 1773.

I have also a copy of Falloppio's Secrets, in German, printed at Augspurg in 1588, if not the first edition of the translation, at all events an early one.

When mentioning Fioravanti's collection of Medical Secrets,* I was not aware that there was one by him on the Arts. I have not the original, but I have found that Gabriel Chappuys, already referred to as the translator of Sardi's tract, published a French version. The copy which is here is of the second edition, and bears date, Paris, 1586.

Besides those already referred to, the Hamilton collection possesses the Hanau 1619 edition of Baptista Porta's *Magia Naturalis*, and the Basel 1662 edition of Wecker's own work, *De Secretis*, to which may be added that of Basel 1613, and the French version, printed at Rouen in 1663. All of these are in 8vo. They are of no special interest, except as showing the number of such books in circulation a couple of centuries ago.

The preceding are merely additions to those formerly exhibited. Those which follow are collections not alluded to before.

In the first part attention was directed to a number of little books of art receipts, all apparently taken from one common source. The oldest version then shown was dated Augspurg, 1537. I have here one printed in 1531. It is entitled:

Rechter Gebrauch d' Alchimei, mitt vil bissher verborgenen, nutzbaren vnnd lustigen Künsten, nit allein den für witzigen Alchimismisten (sic), sonder allen kunstbaren Werckleutten, in vnd ausserhalb feurs. Auch sunst aller menglichen inn vil wege zugebrauchen.

It is a small quarto of xxvii numbered leaves, without place or printer's name. On the title page is a vignette of a jeweller's (?) shop. All the receipts in this are included in the 1537 edition, which, however, is a somewhat larger collection. To a corresponding extent, the receipts in

^{*} Transactions, ii. p. 191.

this are to be found in the various issues of Andrée's Kunstboeck.* About a century later, in 1613, there was published at Franckfurt a small volume, entitled:

Alchimia, Das ist, alle Farben, Wasser, Olea, Salia, vnd Alvmina, damit man alle Corpora, Spiritvs vnd Calces præparirt, sublimirt und fixirt, zubereyten. Vnd wie man diese ding nutze, auff dass Sol vnd Lvna werden möge.

Though this is the title page, the running title of the book is: "Rechter gebrauch der Alchimey, mit viel bissher verborgen, nutzbaren vnnd lustigen Künsten, nit allein den Alchimisten, sondern allen Kunstbaren Werckleuthen, auch sonst allermeniglich in viel wege zugebrauchen." It forms a small octavo volume of 130 pages, and four of index and colophon. It was given to the world by a certain Petrus Kertzenmacher of Mayence, who prefixed an address to the reader as to the value of alchemy in the arts, but he does not either claim or disown the authorship. The fact is, however, that not the second title only, but a considerable part of the contents is taken direct from the 1531 edition. Of Kertzenmacher's work, if really by him, I have here, besides the edition of 1613, a late reprint dated 1720, and a copy in MS. in a small 8vo volume of 119 leaves, written in the 17th century. It becomes, therefore, a little difficult to adjust the relationship of these different collections, of which, beginning with that of 1531, eight have been now exhibited.

In the year 1616 appeared a work by the famous Vanini, who was consigned to the flames at Toulouse in 1619 for atheism. It is a treatise on the secrets of nature, and belongs therefore to the first class of such books.† It is in the form of a dialogue, and in it Vanini expounds his views as to the economy of nature. It is a much less famous book than the author's Amphitheatrum Æternæ Providentiæ, which appeared at Lyons in 1615, but at the same time it is very much rarer.

A collection of medical secrets:—Sommaire de la Medecine Chimique,
. . . Auec un Recueil de diuers secrets de Medecine, was printed in 8vo

^{*} Lowndes (Bibliographer's Manual, Lond., 1865, vol. iv. p. 2235) speaks of a "Book of Secrets," translated by W. W. P. from the Dutch, London, 1596, 4to. This I have not seen; is it a translation of Andrée's collection?

[†] Transactions, ii. p. 183. [Reprint, 1896, Part I. p. 6.]

at Paris in 1632, and another different collection:—Recueil des plus beaux Secrets de Medecine... comme aussi plusieurs secrets curieux sur d'admirables effets de la Nature & de l'Art, appeared at Paris also in 1695. Chemical, medical, pharmaceutical and natural secrets were collected also by a Martin Schmuck, and published under the title—"Secretorum Naturalium, Chymicorum, & Medicorum, Thesauriolus," at Schleusingen in 1637. Besides it there are here editions of 1652-53, and one of 1686.

Another collection was printed at Hamburg in 1689 by Gottfried Schultz. The compiler has not revealed his name, and it is a pity, for his work is a thoroughgoing receipt-book, and a typical specimen of its class. Its long-winded title page may be condensed, however:

Schatzkammer rarer und neuer Curiositäten, in den aller-wunderbahresten Würckungen der Natur und Kunst, Darinnen allerhand seltzame und ungemeine
Geheimnüsse, bewehrte Artzneyen, Wissenschafften und Kunst-Stücke zu
finden. . . . Der dritte Druck, jetzo mit dem dritten Theil von vielen
Chymischen Experimenten und anderen Künsten vermehret, deme angehenget
ist ein Tractat, Naturgemässer Beschreibung der Coffee, Thee, Chocolate,
Tabacks, und dergleichen.

This work is of the most comprehensive and catholic description, including medicines, perfumes, fireworks, painting, fishing, colouring of marble and paper, extirpating of noxious insects, gardening, gilding, and what not.

Just the reverse in character of the preceding is the famous work of Weidenfeld, "Concerning the Secrets of the Adepts," of which there are at least four editions, for they are here, namely, London 1684, Hamburg 1685, Leipzig 1768, all in Latin; and London 1685, in English. The secrets of the adepts are treated very discreetly, and the author restricts his attention mainly to one—what was called Raymund Lully's Spirit of Wine, believed to be the substance now known to chemists as acetone. The book, however, contains besides some preparations for medical use and a chapter on transmutation; but instead of the descriptions revealing the secrets, they seem to involve them in still deeper obscurity. Considering that the book deals with secrets of chemistry in a very secret way, Weidenfield's may be called in every sense a "Secret Work."

Of what may be called truly modern works on the Arts, the oldest

and most important is the *Lexicon Technicum*, compiled by Dr. Harris, F.R.S., and published about the beginning of last century. For a long time it was the principal book of its kind, and it passed through several editions. In the University Library there is a copy of the first (?) edition, 1704-10, in two volumes folio, closely printed in double columns, and with numerous illustrations. It is a very interesting book.

In 1735 there was published at London a *Dictionarium Polygraphicum* in two octavo volumes. This work is intermediate between that of Dr. Harris and the *Polygraphice* of Salmon, mentioned in part one, to which indeed in several respects it bears a notable resemblance. These are not mere receipt-books, but rather technical encyclopædias, giving the rationale as well as the practical execution of a process or an art.

At a later date in 1777 came the *Dictionnaire des Origines* in six volumes, of which I regret there is no copy to put before you, and thereafter we pass into the later literature, which is beyond our province. For purely modern treatises on the arts one must consult the classified catalogues of special libraries, such as that of the Royal Institution, or—which is of more interest to us—of the Philosophical Society here, and such books of reference as Schubarth's and Bruno Kerl's Repertorium der Technischen Literatur.

In what has now been said, the older literature is not by any means exhausted; of editions alone there are plenty to be seen in catalogues which have not been quoted, simply because there were no copies to put before you; but doubtless there are still other collections of receipts and secrets, with which I am unacquainted even by name, but which would reveal themselves to any painstaking investigator. Enough, I hope, has been quoted to show the extent and variety of this literature as evidence that our predecessors were not so indifferent to the practical arts as we are apt to suppose. Hereafter, should I meet with other works of special interest on the subject, I may take the liberty of bringing them under the Society's notice.

Since finishing these last words, I find more last words are necessary to dispose of a score of works and editions which have in the meantime

drifted into view. Their appearance shows the accuracy of what has just been said: that the older literature is not exhausted.

Two copies of Goguet's history I had overlooked in the University Library. One is of the 1758 edition in six small volumes; the other appeared in 1820, and is called the sixth edition. One could hardly have supposed that this work would have passed muster even in 1820. Though professing to be revised, it is merely a reprint, and even as such it is a poor production, the plates especially being of the shabbiest.

Beckmann's second class of histories is well illustrated by a tract of the Italian antiquary and printer Dominico Maria Manni, *De inventis Florentinis*, published at Ferrara in 1731. When one thinks of the notable men whom Florence can claim—architects, natural philosophers, discoverers, artists of every kind—it will be seen that the author had a rich field to work. It is a pity that he has not made more of it, but the time for the proper cultivation of it was hardly come. This book seems to be very little known.

In 1737 Abbé Goujet wrote an essay on the state of the sciences in France from Charlemagne to King Robert. It has the merit of being brief, and since it gained the prize of the French Academy, the student of the history and philosophy of the history of science has an opportunity of comparing what was reckoned best in 1737 with more recent dissertations on similar topics. This essay belongs to both the second and the third of Beckmann's classes.

One ought almost to apologise for having omitted all mention of the histories of mediæval art by M. Jules Labarte. They are works of such acknowledged merit on goldsmith's work, on carving in wood, ivory, wax, and metal, on enamelling, pottery, glass, armour, and such like branches of the arts of decoration, that the mere mention of them is all that is required. That which is best known is the history which appeared in one volume some thirty years ago, but there is besides the very sumptuous work on the industrial arts, published in 1864, and again in 1872. These may be taken as examples of Beckmann's third class of histories.

There are still three copies of Glanville to consider. The first is of

the edition of 1488, referred to in the note [Trans. ii. p. 248], see above, p. 24, as being in Stirling's Library. I have now collated that copy, and as I can confirm Hain's account (No. *2507) further description is not at present necessary.*

The second is a copy of the Strassburg edition of 1485. Hain's collation (No. *2506) in this case also is confirmed by comparison with an actual copy, so that it does not need to be repeated. In the copy I have had before me the only difference is in certain blank leaves. In Hain's copy there was a blank leaf between the table and text; in my copy this leaf is wanting, but there is a blank leaf at the end, which was wanting in Hain's. In all other respects Hain's account agrees.

The third copy is one of the French translation, and as no account of it is forthcoming, I may give the following:

F. 1 is blank. F. 2r, with sig. ii, Headline: Prologue | Then in long lines; Cy commence vng tresexcellent liure nomme le proprietaire des choses translate de latin en fră | coys a la requeste de trescrestien et trespuissaut (sic) roy charles quint d ce nom adonc regnant en france | paisiblemēt, | lequel traicte moult amplement de plusieurs notables matieres comme on pourra app- | ceuoir par les prologues qui sensuyuent | Large woodcut depicting the presentation of the translation to the king. Then col. 1, Le prologue du translateur. | () Treshault z trespuissant prince charles par la di- | uine pouruoyace de dieu | & c. ends f. 3r, col. 2, Cy finist le prologue de lacteur. F. 3v, sol. 1, Cy commencent les rubri | ches de tout ce present liure. | Table ends f. 8r, col. 2, Cy finlst (sic) la table | 8v, blank. F. 9r, with sig. a., Headline: Le premier liure de Dieu | then in long lines: Cy commence le premier liure du proprietaire au quel tant seullement est traictie de la saincte trini | te et vnite diuine avec ses noms et proprietez | Woodcut. col. 1, Le premier chapitre qui est de dieu. | (e) N couvoitant aulcu | nes choses declairer | des proprietes z des | natures &c. At the end: () Estuy liure des proprietez des choses | fut translate de latin en frencois la de | grace. M.CCC.lxxii. par le comma | dement de tres puissant et noble prince Char | les le quint de son nom regnant en ce temps en | france pasiblement. et le translata son petit et humble chapellain frere iehan corbicho de lor dre sainc (sic) augustin, maistre en theologie de la grace et procion du dit prince et seigneur tres excellet et a este reuisite par uenerable z discre te personne frere pierre ferget docteur en theo | logie du couuent des augustins de lion, et impri | me audit lieu de lion par honorable home mai | stre Iehan cyber maistre ē lart de impression |

^{*} In the copy in Stirling's Library leaf Si is awanting.

It is a large folio of 252 leaves, printed in Gothic character, with signatures in eights, double columns, except the table which is in three columns, and some of the headings which are in long lines. There are 54-56 lines, besides head-lines, and there are 20 large rude woodcuts. There is no date, but it was printed about 1495. This is one of the later editions of Corbichon's translation, of which a MS. in the Hunterian Museum has been already referred to. It is just mentioned by Hain (No. 2513), who had seen no copy, and very little is said about it by Brunet. It may be entitled, therefore, to rank as one of the rare books of the fifteenth century; and it is rare, probably because, being in the vernacular it was much read, and the copies were gradually used up. Of these three editions the last is undoubtedly the finest. The other two are common-looking, and obviously were got up to meet a demand for the book in a cheap shape. Not one of the Latin copies I have seen is so handsome as the first edition of 1480. It may be noted that Glanville's work is supposed to have had a place in Shakspere's library, which may give it additional interest to readers of English and antiquaries.

Of Alessio's Secrets an edition earlier than any which have yet been noticed is in the Euing collection. It is called the second edition, and was printed at Lyons so long ago as 1558. It is a small volume in 16mo, and contains only the first part of the collection.

Another edition of Wecker's Secrets has also turned up. It appeared at Basel, and is one of the most respectable copies I have seen. Usually the work is printed badly on spongy paper stained with foxing, so that it is quite a relief to meet a copy like the present on firm fair paper. It is a mere re-issue, however.

To Kertzenmacher's list must be added an edition of the *Alchymia*, which appeared at Frankfurt in 1589. It has the rude plates of apparatus, the two titles, and Kertzenmacher's preface. This, again, is the earliest copy I have seen, but there may be others still earlier.

Another Italian collection of Secrets revealed, like some of those already mentioned, by a lady, Isabella Cortese, was published at Venice in 1625. As it is a new and revised edition, there must be others still earlier, but these I have not encountered. This is a very miscellaneous collection, but as

might be expected, the cosmetic art bulks largely in it. It is proverbially hard for a woman to keep a secret, so that it is not to be wondered at that Mlle. Meurdrac, Signora Cortese, Frau Wecker, and I suppose others, found it impossible to keep several score.

Other books distinctly on the same subject, besides Liebaut's already noticed, may be mentioned. One I know only by Nodier's reference to it.* It is the treatise of André Fournier: La discoration d'humaine nature et aornement des dames, printed at Paris in 1530, and now of extreme rarity. Another, however, I have seen. It is entitled De Decoratione, was written by Hieronymus Mercurialis, and was first printed at Venice in 1585. The edition I have was printed at Franckfurt the year following. The most interesting thing about this second edition is that it contains in an epistle to Mercurialis, dated Bologna, Feb. 22, 1586, the first account by Tagliacotius of his method for the restoration of noses, one of the branches of surgery, which is fairly entitled to rank among both the decorative and useful arts.

Another treatise on the personal decoration of the female sex was written by Sir Hugh Plat of Lincoln's Inn in 1602. This is a work I regret my inability to get, for I should like to have been able to disclose some of the secrets in use two and half centuries ago, as well as to have ascertained how the author came by his information. Of the same Sir Hugh, there are two works which may be included here. One is the first edition of his Iewell House of Art and Nature, printed at London by Peter Short in 1504. of which a later issue was quoted in the first part of the present notes. As usually happens, the first edition is a much more interesting book than that of 1683. Besides its age, it has some curious ornamental title pages to recommend it to the book-fancier, and it is printed more legibly, which may be in its favour with those who still believe that books are only for reading. At the end of this volume Sir Hugh tabulated a few important inventions which he was keeping to himself as valuable secrets, but which he had no objection to reveal to any one really interested in them. A few years later, in 1603.

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^{*} Nodier, Description . . . d'une jolie collection des Livres. Paris, 1844, p. 50, No. 130. † Peter Short seems to have been the scientific publisher of his day. Besides this work of Plat's, he was the printer of the first edition of Gilbert's book De Magnete and of Gesner's New and Old Phisicke.

Peter Short printed for him another tract containing at length a description of one of those inventions, to which he must have attached considerable importance. The tract is in small quarto, and is entitled, A new, cheap and delicate fire of Cole-balles, and so far as I know, is the description of one of the earliest endeavours to economise fuel and diminish smoke. The invention consisted in mixing pounded sea-coal with sawdust or other combustible matter, adding a certain proportion of loam, and working the whole into round balls, which were placed in the grate to be burned. There is a vignette on the title page representing a grate or fire-place with a fire of these balls in it. This, I suppose, is one of the scarcest tracts of the author.

Half a century and more after Plat came another inventor, to whose book it is very difficult to assign a place. I refer to the Marquis of Worcester, one of the most ingenious men of any time, who, however, did not commit to paper more than the mere titles of his inventions. Within the last dozen years they have been brought prominently before the notice of the curious in these matters by the elaborate work of Mr. Dircks, to which any one wishing to know about the Marquis will go. This work contains not only a reprint of the Century of Inventions itself, but a long biography, and an introduction and notes to the Century, in which a well-deserved castigation is administered to Messrs. Horatio Walpole and David Hume for their attempted criticism of the inventions. There is a list of the editions also, but this is neither so complete nor so detailed as a bibliographer would desire.

Whoever wishes the full flavour of the Marquis' inventive ideas will read them in the first edition—if he can get it. It is a tiny duodecimo, printed at London in 1663, and is now become scarce. Nor are the two Glasgow editions at all common, though printed a century later. One of these has the date 1767, and the imprint of R. and A. Foulis, the famous Glasgow printers; the other 1792, and the names of Duncan and Chapman. This last edition is not mentioned by Dircks. Partington's edition of 1825 is a pretty and handy book, but it is inferior as an edition.* All these, as well as

^{*}There are two ludicrous errors on p. 36. A propos of a universal alphabet Partington refers to the proposal of "George Dalgaru, an Englishman," published in London in 1661. He means George Dalgarno, who was born in Old Aberdeen, and studied at Marischal College, and afterwards had a school at Oxford. Anthony a Wood calls him a "Scot," as indeed what else could be be?

Dircks' own edition, are contained in the University library, so that those who wish it have a fair command of available information about the author.

Passing to another division, that of Medical Secrets, one may be mentioned for the benefit of those who may be more lucky than myself in getting a copy. It is entitled Les Fleurs et Secrets de Médicine, translated from the Latin into French by Raoul du Mont Vert, and printed in a small black letter volume about 1520. This contains not only many wonderful things about medicine and physiology, but treats also of comets and of the magnitude of the sun and the heavens, so that it is altogether as fascinating a book as one could wish for a winter evening.

Among the voluminous writings of that previous person, Alexander Ross, there is one entitled Arcana Microcosmi; or, the hid Secrets of Man's Body discovered; in an Anatomical Duel between Aristotle and Galen, concerning the Parts thereof. The duellum begun between these two ancient sage philosophers is carried on in the later parts of the book between Ross himself and his distinguished contemporaries William Harvey and Dr. Thomas Brown; Ross objecting to some of Harvey's views about generation and circulation, and confuting some of Brown's own errors respecting vulgar The discussions are not of much importance now, but the way in which they were conducted is not without interest at the present day. Whoever reads the Arcana will see that the difference of opinion arose from imperfect knowledge or absolute ignorance of the facts, and that suppositions and fancies too frequently put on the appearance of realities. When one reads the biological discussions between rival schools in the scientific journals of 1883, doubt unbidden will arise in the mind of the non-partizan onlooker as to whether the parties engaged in the modern anatomical duel know their facts any better than Ross and his contemporaries did theirs.

Of the books of Secrets there is a set which I have tried to avoid, though a few have been quoted in the course of the preceding. These are collections of Chemical Secrets, which belong rather to the literature of that science in general than to what has been chiefly under consideration. Exception may now be made in favour of two, since they bear the name distinctly.

Raymund Lully, one of the lights of alchemy in the thirteenth century, wrote a work on the quintessence of things, under the title, De Secretis

Naturae. It was a popular work with the old chemists, for it passed through several editions; and it was upon this quintessence that Weidenfeld wrote his commentary, already alluded to. Of these editions three have come before me—that of Venice, 1542; Nürnberg, 1546; and Cologne, 1567; all of them desirable books.

Long after Lully, Sir Kenelm Digby, who dabbled in chemistry and medicine and Philosophy, compiled a collection of Chemical Secrets, which was published after his death by George Hartman, his operator. It appeared in 1683, was translated into German the year following, and I have seen a Dutch translation that was published in 1693 at Amsterdam.

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BIBLIOGRAPHICAL NOTES

ON

HISTORIES OF INVENTIONS

AND

BOOKS OF SECRETS

PART III

BY

JOHN FERGUSON, M.A.

PROFESSOR OF CHEMISTRY IN THE UNIVERSITY OF GLASGOW

[Read to the Archwological Society of Glasgow, 18th December, 1884]

GLASGOW STRATHERN & FREEMAN, 145 WEST NILE STREET 1885



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THE acquisition of a considerable amount of new material has induced me to solicit once more the attention of the Society to the literature of technical receipts and "secrets," especially as several of the books to be referred to are even more curious than those brought forward on previous occasions. Among them are some, remarkable for their contents; others, attractive from their rarity; while a third set consists of first editions, always of value, as representing the works as they left their authors' hands. The notes will treat, as formerly, I. of histories of inventions; II. of books of secrets. Under the second head there will be a sub-division into, A, notes on editions of works different from those already quoted; and, B, notes on works referred to now for the first time, which will form the fourth, and, as I intend, the concluding part of this research.

I. HISTORIES OF INVENTIONS.—In the enumeration of these histories by Labbe, Teissier, and Beckmann, there is one, De originibus rerum, by

¹ Labbe, Bibliotheca Bibliothecarum, Rothomagi, 1678, p. 73.

⁹ Teissier, Catalogvs avctorvm qui Librorvm Catalogos . . . scriptis consignârunt, Genevæ, 1686, p. 119.

⁸ Beckmann, Beyträge sur Geschichte der Erfindungen, Leipzig, 1792, III. p. 456. Trans. Archaol. Soc. Glasg., 1883, II. p. 231.

Gulielmus Pastregicus, printed in 1547. Having come into possession of a copy of it, I have been led to make some inquiries about the writer, but have failed to find anything in detail about him in English books of reference. It is not surprising, however, that his name has been passed over, for Tiraboschi says that it was hardly known in Italy, while beyond that country it was as good as unknown; he might have added that even in Italy, last century, his very existence was called in question.

He was born at Pastrengo³ early in the fourteenth century, and may have belonged to the illustrious family of the Guarienti. He tells us that he studied jurisprudence under Oldrado da Lodi, a distinguished lawyer, and he ultimately acquired the posts of notary and judge, which he filled at Verona. In 1335 he was despatched to Pope Benedict XII. at Avignon, from Mastino

According to the article in the Giornale, XV. p. 200, it is a village in the province of Verona, not very far from Pescentina on the Adige. It was in this neighbourhood that the estates of the Guarienti lay. Our author is sometimes erroneously considered a native of Verona, while Maffei has fallen into the opposite mistake of distinguishing him from Gulielmus Veronensis orator, as he is styled by Petrarch. With regard to the different forms of his name, it may be observed that Maffei and Tiraboschi call him Guglielmo da Pastrengo; the Giornale, Guglielmo Pastrengo; and Montfaucon (Diarium Italicum, Paris. 1702, p. 48), Guillelmus Pastrengicus.

¹ Tiraboschi, Storia della Letteratura Italiana, Firenze, 1807, Tomo V. p. 401.

² This seems to have been done by Signor Francesco Arisi. His averments were criticised and shown to be quite erroneous by the editor of the Giornale de Letterati d'Italia, Venezia, 1713, Tomo XV. p. 198, sqq. The editor quotes several earlier Italian authorities who have mentioned and commended Pastrengo, and he also refers to his book. It is remarkable that Tiraboschi has taken no notice of this article, but has given Maffei—whose work, Verona Illustrata, did not appear for twenty years after—the credit of having been the first to recover Pastrengo's name from oblivion and to show how highly he was to be esteemed for his efforts in literature and history.

⁸ Beckmann (Beyträge, Leipzig, 1792, III. p. 456) says: "He was called Pastregicus, Pastregius, Pastregius, Pastregicus, and Guglielmo Pastrengo, from the little village of Pastrengo, which in Jonson's map: Territorio di Verona, is situate on the Adige, between Verona and the Lago di Garda." From a more minute account of its location by Schreiner (Ersch and Gruber's Allgemeine Encyclopädie, Leipzig, 1840, Sect. III. Th. XIII. p. 216), one gathers that it lies on an eminence of the same name, in a valley separated from that of the Adige by a ridge, three-quarters of a German mile from the lake, and two German miles from the capital. This agrees fairly well with the position assigned it in Spruner and Menke's Hand-Atlas für die Geschichte des Mittelalters und der neueren Zeit, Gotha, 1871-80. Map No. 28.

della Scala, the lord of Verona, and his brother Alberto, to obtain for them confirmation of the dominion of Parma. On this embassy he probably became acquainted with Petrarch. Three years later he was again sent on a message from Mastino della Scala to Avignon. With his own hand Mastino della Scala had assassinated his cousin, Bartolomeo della Scala, Bishop of Verona, and he soon found it not unadvisable to make his peace with the Pope. Pastrengo was successful in this delicate mission, and got the criminal relieved from the ban under which he had been laid. While at Avignon, Pastrengo renewed his acquaintance with Petrarch. The poet having heard of Pastrengo's arrival came to Avignon, but, finding that he could not endure the pain of seeing the places associated with Laura, made his escape to Vaucluse before Pastrengo could visit him at the house where he usually resided when he ventured into Avignon. Thereupon ensued some correspondence between them, which ended apparently in Pastrengo's going to Vaucluse; and in one of Petrarch's verse epistles there is a charming glimpse of the manner in which two such scholars—just five hundred years ago could divert themselves.2 After Petrarch had been crowned at Rome in

¹ A narrative of the events will be found in brief in Sismondi's Histoire des Républiques Italiennes, Paris, 1818, T. V. chap. 33. Villani (Cronica, L. XI. cap. 30) does not speak of this embassy of Pastrengo's. That is done, however, by Massei (Verona Illustrata, Verona, 1732, Parte Seconda, col. 59), and by the Abbé de Sade in the Mémoires pour la vie de François Pétrarque, Amsterdam, 1764, I. p. 270. Tiraboschi has pointed out this discrepancy, but thinks that Massei had probably good grounds for his statement. From de Sade it has passed into the Lise of Petrarch by Mrs. Dobson, London, 1797, vol. I. p. 72, and into the Lise of Petrarch by Campbell, London, 1841, vol. I. p. 151. Misled apparently by the order of Massei's narrative, G. M. S. Fischer, who has written the article on Pastrengo in Ersch and Gruber's Allgemeine Encyclopädie, Leipzig, 1840, Sect. III. Th. XIII. p. 215, has transposed the dates of Pastrengo's two embassies to the Pope at Avignon.

² The letters which passed between Petrarch and Pastrengo are to be found in the Variarum Epistolarum Liber of the former. Tiraboschi numbers those from Petrarch to Pastrengo, 32, 35, 36, 37, 38; and from Pastrengo to Petrarch, 31, 33, 34. In the copy before me, edited by Chalasius, and printed: Lugdvni, apud Samuelem Crispinum, M.DCI. 8vo, they are numbered 24, 25, 26, 30, 31, 32 (obviously misprints for 27, 28, 29), 30, 31. Besides these misprints, there are graver errors; for No. 24 and No. 30 (or, as it ought to be, No. 27) are assigned to Petrarch, whereas these two are letters from Pastrengo to Petrarch. The same mistake exists apparently in a Basil edition, and has misled Maffei, as Tiraboschi has shown. The poetical letters are addressed to Gulielmus Veronensis orator, and are to be found in the Epistolarum Libri III. contained in Francisci Petrarchae.

1341, he resided for about a year at Parma and wrote to Pastrengo, but they do not appear to have met. In 1345, however, Petrarch saw Pastrengo at Verona, and one of the letters describes how Petrarch on his return to Avignon was accompanied by Pastrengo to the Veronese frontier, and the sorrow with which they parted. From their letters, indeed, it is plain that they were on the most affectionate terms with each other, and as a further proof of it Petrarch sent his son in 1352 to Pastrengo to be educated. The last we know of Pastrengo is that he was still alive in 1361, for in the same year Petrarch sent him a letter on the death of this son. It is thought probable that Pastrengo died before 1370, for in that year Petrarch made a will in which he left some token of remembrance to every one of his friends, but among these is no mention of Pastrengo.

Apart from his connection with Petrarch, his official position in Verona, and his concern with the politics of his time, Pastrengo is known as the compiler of the first biographical and historical dictionary. Other attempts before his had been made, but they were limited in scope. Pastrengo, not ignorant of the difficulties of his task, took a much wider range, included all authors, sacred and profane, and added geography, history, and discovery. When we consider the very defective means at his command, we need not feel surprised at there being gaps and errors in his book, and at the same time we can agree with Tiraboschi and others in admiring his extensive erudition and his unstinted labour.

A manuscript of his work existed in the seventeenth century in the library of St. John and St. Paul at Venice,² and there were two manuscripts of it at Rome, which were examined by Montfaucon.

poèmata omnia, Basileae, 1541, 8vo. They are the following: Lib. II. 18 (Tiraboschi says 19); and Lib. III. 3, 11, 12, 20, 34. See also De Sade, Mémoires pour la vie de Pétrarque, Amst. 1764, I. p. 377, sqq.; Tiraboschi, Storia, Firenze, 1807, V. p. 402.

¹ Montfaucon's statement (*Diarium Italicum*, Paris. 1702, p. 48) that Pastrengo was Petrarch's teacher is considered by Maffei (*Verona Illustrata*, Parte Seconda, col. 58) and subsequent writers to be an error. Evidence of any such relationship is not forthcoming. In one of his verse Epistles (Lib. III. 34), Petrarch tried to induce Pastrengo to go with him to the jubilee at Rome in 1350, but Pastrengo was unable to absent himself from Verona.

² Tomasini, Bibliotheca Veneta Manuscripta, Vtini, 1650, p. 27. "Gulielmus Pastregicus, vel Pastrengicus Veronensis causidicus de Viris Illustribus." Curiously enough he does

Two hundred years after it was composed, the work was printed at Venice in 1547, edited by Michelangiolo Blondo. The following is an account of it:

De Originibvs | Rervm Libellvs | Avthore Gvlielmo | Pastregico Veronense. | In Qvo Agitvr De Scriptv- | ris Virorum Illustrium. De fundatoribus Vr- | bium. De primis rerum nominibus. De | inuentoribus Rerum. De primis | dignitatibus. Deq; magni- | ficis Institutionibus. | Expvrgatvs Omni Errore | atq; litura, nunc primum é tenebris eductus | in lucem, in suffragium studentium à | Michaeleangelo | Blondo, solerti rerum | exploratore. | 5 | Cum Priuilegio P. in X. Annos.

It is a small 8vo, printed in italics, contains 131 leaves numbered, and a blank leaf. The colophon is on the recto of f. 131:

Impressum Venetijs per Nicolaum de Bascarinis. | Anno Domini. M.D.XLVII.

On f. 131 verso, is a letter to the booksellers and printers warning them against tampering with the printing and sale of certain books. It is dated 1547.

This book is of the highest degree of rarity. After examining all the library catalogues at my command, I can find only one other copy in this country, and it is in the British Museum. There was no copy of it in the Sunderland Library, the place above all others where one might have expected to find such a work.

Montfaucon¹—who gives the work its correct title, *De Viris Illustribus*—said that it was as completely lost sight of in Venice as if it had never existed, but having got a copy he was minded to bring out a new edition, amending

not tell its size, or say whether it is in one volume or in two. Weiss, however (Biographie Universelle, Paris, 1823, Tome 33, p. 113; repeated in the later edition, Paris, no date, Tome 32, p. 242), says that it is in two volumes folio, and that it contains a species of lexicon of writers, and that the second part is a historical and geographical dictionary. Blondo's edition, he adds, contains the second part only. This account of the matter is repeated by Fischer (Ersch and Gruber's Encyclopädie, 1840, Sect. III. Th. XIII. p. 215), who commits the error of calling the editor Blando. Brunet (Manuel du Libraire, Paris, 1863, IV. col. 428) also says that this MS. is in two volumes, and that Blondo's edition contains only the second part of the work. All this, however, is absolutely wrong. Blondo's edition contains this dictionary of authors—which is indeed by far the largest section—as well as that of history, geography, &c. Blondo's mistake consisted in not retaining the author's title, De Viris Illustribus, and this has misled subsequent writers who have probably failed to see a copy of this very rare book.

¹ Diarium Italicum, Paris. 1702, p. 48. This passage is repeated by Fabricius, Bibliotheca Latina media et infima Ætatis, Hamburgi, 1735, L. VII. p. 474; and by Freytag, Analecta Litteraria, Lipsise, 1750, p. 662.

Blondo's errors, and collating the text with the two Roman MSS., which, however, he did not accomplish. Maffei also had the intention of editing Blondo's work, but neither did he carry it out.

When Beckmann's first described the book, he said: "This rare book I myself have never seen," and he took his description from Labbe. Some twelve years later he³ stated that he had been favoured with the inspection of a copy sent him from the Ducal Library at Oldenburg, from which it may be inferred that its scarcity in Germany is as great as in this country and in Italy. Tiraboschi does not say whether he ever saw a copy or not, but from the way he speaks of the book having become rarissima, it may be supposed that he had not. Every writer has emphasised its rarity. I have noted but a few references to the book in English. The first is by Mrs. Dobson, who has given a more correct description of it than most writers who had access to the same sources of information as she had. The second is by Watt, to whose credit it must be written that he allowed as little as possible to escape him. The third is by Campbell, who has shown himself quite ignorant of the book, and quite ignorant of his ignorance; and the last is in a modern abstract of biography. Others there may be, of course.

The work itself is divided into six heads, as specified in the title, and the material of each is arranged in a classified alphabetical order. The first section relating to the writings of illustrious men is much the longest, but as can be supposed from the extent of the subject and the size of the book the space allotted to each name is very limited. The section on the inventors of things occupies from f. 78 to f. 90, and is even shorter than the corresponding

¹ Verona Illustrata, Verona, 1732, Parte Seconda, col. 60.

² Beyträge, Leipzig, 1792, III. p. 456.

⁸ Beyträge, Leipzig, 1805, V. p. 306.

⁴ The Life of Petrarch, London, 1797, vol. I. p. 73. Her account is taken from De Sade's Mémoires, Amst. 1764, I. p. 274.

^{*} Bibliotheca Britannica, Edinburgh, 1824, vol. II. 736j. Watt may have got his information from Gesner's Bibliotheca, ed. Simler, Tiguri, 1574, p. 260.

Life of Petrarch, London, 1841, vol. I. p. 152.

Woodward and Cates, Encyclopadia of Chronology, London, 1872, p. 1097.

section in Contarino's Il vago e dilettevole Giardino, formerly referred to. The notices occupy only a few lines each, and are taken chiefly from classical authorities; there is, of course, nothing that would contribute now to the chronicling of invention. But, however defective Pastrengo's work may be in plan and execution, it will always remain a notable landmark in literary history, as being one of the earliest attempts at the construction of a dictionary of the kind. Competent writers in successive periods have given Pastrengo abundant praise. Not to speak of Petrarch, who may be thought too partial. we have the judgments of Onofrio Panvini, Giambattista Peretti, Antonio Torresano, and especially Maffei. Montfaucon commends the work for its references to writers and to books up to its time unnoticed: Beckmann4 similarly for its record of books that never got into print, and of writers elsewhere unmentioned; Tiraboschi⁵ is still more flattering; Savigny⁶ says that the work is doubly interesting for legal literature. Graesse' gives him a place in his great chronicle for the same reason, and a more recent allusion to him speaks of him as the representative of learning in his time at Verona.8

While admitting, however, all that can be said in praise of Pastrengo, it does not detract from his fame to remember that he had as his contemporary Bartholomew Glanville, and that a century earlier flourished men of as great powers, of even greater learning and of immensely greater production. The epoch of Albertus Magnus, Thomas Aquinas, Vincent de Beauvais, Roger Bacon, all living in the thirteenth century, is not eclipsed for scholarship and labour by any other in the history of science and literature.

¹ These writers are quoted in the Giornals de Letterati d' Italia, Tom. XV. pp. 199, sqq.

² Verena Illustrata, Verona, 1732, Parte Seconda, col. 60. He not only praised the grandeur of Pastrengo's idea of a general dictionary of authors, but quotes him several times as an authority.

⁸ Diarium Italicum, Paris. 1702, p. 48.

⁴ Beyträge, V. p. 307.

⁵ Storia, Firenze, 1807, V. p. 404.

[•] Geschichte des Römischen Rechts, Heidelberg, 1834, III. pp. 32-4.

Graesse, Lehrbuch einer Allgemeinen Literärgeschichte, Dresden, 1843, Bd. II. Abth. III. p. 573-

Voigt, Die Wiederbelebung des classischen Alterthums, Berlin, 1880, Bd. I. p. 443.

In a former note reference was made to a work *De origine et laudibus Scientiarum* by Zacharias Lilius, canon of Vicenza, printed at Florence in 1496, but at the time I had not seen it. I have since managed to get a copy of this very rare book. It contains five tracts, of which that on the sciences is the first and longest. As was to be expected, those described are the so-called liberal sciences: grammar, rhetoric, poetry, history, dialectic, arithmetic, geometry, music, astrology, philosophy, medicine, botany, military affairs, civil and canon law, theology. They are dealt with very briefly and the book is partly a history, partly a catalogue and a criticism of writers on the different topics. It is intermediate between the works of Pastrengo and Polydore Vergil both in time and treatment of the subject.

Notwithstanding the numerous editions of Polydore Vergil's treatise, I have observed in catalogues only a very few copies since my last paper. One was of the edition of 1525, in folio, with Holbein's frontispiece; another, of 1546 printed at Lyons by Gryphius. I failed to get either, but by way of compensation have quite accidentally fallen in with a copy of Guarinus' edition of 1563. Guarinus apparently succeeded Isingrinius at Basel; at all events he both used the device of that printer on the title and carried on the Basel tradition, for this copy closely follows the pattern of 1544 and 1546 in size, type and general arrangement. It is not quite so handsome a book as that of 1546, but it has a decided advantage over it, from the student's point of view, in possessing a long index.

The opportunity also has offered itself to me of comparing the two editions of the expurgated version, published at Rome in 1576 and 1585 respectively. The 1576 edition was printed Romae, Apud Haeredes Antonij Bladij Impressores Camerales. That of 1585: Romae, ex officina Bartholomæi Grassi. The devices on the title page are different. The introductory epistle from Pope Gregory XIII. is quite different. In the 1585 edition, the letter of the author to Odaxius and the first leaf of the Index Capitum have been set up anew, but in the rest of the book no difference between the two editions is

¹Trans. Archaol. Soc. Glasg., 1883, II. p. 232, note ‡

Brunet (Manuel, Paris, 1862, III. col. 1078), speaks of his works as rare and little known. Audiffredi (Specimen . . . Editionum Italicarum, Romæ, 1794, p. 348), praises the book for its appearance.

detectable until we arrive at the last leaf containing the errata, the register The errata in the two editions are different, which would and colophon. lead one to suppose that the book had been really reprinted; but this is not so: for, so far as I compared them, the errata mentioned as in the 1576 edition exist in the later edition, and vice versa. The register has been obviously reset. The colophon of the 1585 edition, however, has the imprint of Antonius Bladius and the date 1576. So that there was no attempt to conceal the obvious fact that this was the edition of nine years previous, and that, disguised with a new title page, a new date, a new letter from the Pope, and a new table of errata, but with the old errata in the text and with the old printer's name and old date in the colophon, the eight books of Polydore Vergil's history, denuo recogniti et expurgati, as the title page does not blush to affirm, were again offered to an unwilling public. The expurgated editionwhich is besides as ugly as one could desire—must have proved rather dead stock when such desperate means had to be resorted to to galvanise it into life. Comparison of these two issues thus affords an interesting glimpse into some of the publishing devices of the sixteenth century.

I have also got a copy of the Strasburg edition of 1606. It is a compact little volume, printed by Zetzner, the well-known printer, and, in addition to the history of Polydore Vergil, contains extracts from Pliny, Sardus and others, as in one or two of the editions formerly quoted, but there is nothing specially important about it.

Connected, however, with Vergil's work, the question of greatest interest is the date of the first edition. The difficulty I formerly had in answering it was caused by the statements of Panzer and Hain conflicting with those in the Bodleian Catalogue, and in Graesse's *Trésor*.² The former authorities give 1499 as the date of the first edition, while the latter two assign 1498 apparently to actual copies. A visit I paid this last autumn to the Bodleian Library has enabled me to ascertain among other things that 1498 assigned to the *De Inventoribus Rerum* in its catalogue is merely a misprint for 1499,

¹ For further details about the expurgated editions see the work of Dr. Reusch: Der Index der Verbotenen Bücher, Bonn, 1883, I. p. 154.

² Trans. Archaol. Soc. Glasg., 1883, II. p. 236.

and that it has no copy dated 1498. The date, 1498, therefore, rests now solely upon Graesse's authority, and as his statement is based ultimately on a second-hand book catalogue of Weigel, it is likely that the latter has misread the rather unfamiliar form MCCCCLXXXXVIIII, 1499, and taken it for MCCCCLXXXXVIII, 1498. Though I know by experience how very rash it is to deny the existence of a book which one has not actually seen, I am now convinced that there is no edition of 1498. Hain gives none, Panzer says positively that it is spurious, and I have met with no authentic copy in any library catalogue; the British Museum and the Bodleian have each a copy of 1499 only. But apart from all this, the author's own history is against it. In the preface, the author, while claiming to be the first who had approached the subject, says—with a glance at Erasmus that there are possibly others with more learning than he, who might have done the work better, as happened in the case of the proverbs "quorum libellum proximo anno Guido principi Vrbini duci inscripsimus"—"a collection of which we dedicated to Guido Duke of Urbino, last year." work, of which I have a copy, is dated in the colophon April 10, 1498.

In the letter to his brother from London, December 5, 1517, prefixed to the 1521, and also to the 1528 edition of the De Inventoribus Rerum, Vergil tells us that it took him nine months to compose this history. The colophon of the De Inventoribus Rerum is dated August 31, 1400, so that supposing he began to write it immediately after the proverb-book was out of his hands, say in May 1498, the manuscript could not have been finished before January 1499, and the printing would still have to be done. There is another obstacle in the way of a 1498 edition. The prefatory letter to Odaxius in the 1499 and 1528 editions is not dated, but in the 1544, 1546, 1563, 1585, and possibly in some earlier editions as well, it has the date August 5, 1499. In what edition this date was first inserted I do not know, but it seems to have been added by the author, in which case it would indicate that the preface of the book was finished full three weeks prior to the printing of the colophon. Consequently a few months must have elapsed between his completing the Proverbiorum Libellus and his beginning the De Inventoribus

¹ It may be added that Reusch (*Der Index der Verbotenen Bücher*, Bonn, 1883, I. p. 154) calls the edition of 1499 the first.

Rerum, and this space of time sufficed to give him a notion of the popularity of his first literary attempt, which was what spurred him on to make a second. These considerations seem to me to prove definitely that an edition of 1498 does not only not exist, but never could have existed.

In the Bodleian' I had the opportunity of collating the edition printed by Senant at Paris early in the sixteenth century. It is the first-mentioned edition in the list already given by me; and as I know of no description of it anywhere, one may be introduced here for the convenience of subsequent investigators.

Fol. 1 a Title: Polidori Vergilii | Vrbinatis de Inuentoribus Rerum | Libri Tres operosissima nuper | cura emēdati & seueriore | Lima q accuratissime | expoliti |

Followed by Senant's device, consisting of a large square woodcut of a tree with two birds in the branches, and below it two men with cross bows. Round three sides in black letter are the words: En le monde fault bien | tirer Qui en | Paradis veult monter | and at the bottom: Oliver Senant.

Fol. ij ¶ Polydori Vergilij Vrbinatis ad Lodouicum | Odaxium Patauinum Præfatio. |
Fol. lxi a ¶ Finit Polydori Vergilij Vrbinatis de Inuētoribus rerū | opus Impressum
Parisius (sic) Pro Oliuerio senant Comorāte | in vico diui Iacobi ad intersigniū
diue Barbare virginis. |

Fol. lxi b ¶ Polydori Vergilij Vrbinatis de inuentoribus rerum. | Tabula Primi Libri | which ends fol. lxiij b. Lavs Deo.

It is in small quarto size, and it contains 61 leaves numbered, and 2 leaves of the table not numbered; the last leaf, forming sig. 14, and probably blank, is wanting. It is printed in Roman character, except the first line of the title and the motto and name round the device, which are in Gothic character. There is no date. This is one of the rarest, if it be not the very rarest, of all the editions. It is not mentioned by any bibliographer, and I know of no other copy except this one in the Bodleian. There is none in the British Museum.

From the list of editions in the British Museum formerly given, I find that two have been omitted. One is the issue of the English version, printed in April, 1546, by Grafton, quoted by Dibdin, and—as I had seen no copy—merely alluded to on a former occasion; the other is the reprint of Langley's

¹ I would again repeat my acknowledgment of the kindness of F. Madan, Esq., of the Bodleian Library, who enabled me to consult this and several other works in that collection.

² Trans. Archaol. Soc. Glasg., 1883, II. p. 233.

translation, London, 1663. These, together with the editions already described in Part II. of these notes, are all that exist in English, so far as I know. They amount to eight: three in 1546, and one each in 1551, (1570), 1659, 1663, 1868. The only other point of interest is that the little book entitled A Pleasant and Compendious History, is nothing but Langley's Polydore Vergil, alphabetically arranged, curtailed, modernised, and with a supplement about English inventions added.

In the enumeration of the different editions of Pancirollo's history there was one omitted. It appeared at Amberg in 1612 in a small 8vo form, and it is entitled the third edition. The portion which I have got contains the first volume relating to the memorable things devised by the ancients. It is complete in itself, and I do not know whether the second book was published at the same time or not. I have seen two copies of this volume without the second. Long after came the quarto editions, three of which have been already before the Society. The present edition is not referred to by any one except by Graesse, so far as I have observed. In its original vellum cover it forms a much more attractive volume than the later foxy quartos. The second edition of the English translation appeared at London in 1727. It is merely a re-issue of that of 1715, with a new title page. (See Notes, Part II. Index, No. 96).

In the common-place book, or classified subject index to classical literature and antiquities by Johannes Ravisius Textor,² entitled *Officina*, there is a good deal relating to inventions, but it is in the form of mere notes or

¹ As I intend giving an account of the English editions in fuller detail, it is unnecessary to do more than mention them on the present occasion.

² Jean Tixier, Seigneur de Ravisi, was born about 1480. He taught the Humanities, rose to the position of Rector of the University of Paris in 1520, and died in 1524. He was author of several works, most of which went through a great number of editions. The Officina was first printed early in the 16th century, but the copies I have seen are late: Basil, 1617; Basil, 1626—practically a reprint of the preceding; and an Epitome, Geneva, 1626. Beckmann (Beyträge, Leipzig, 1805, V. p. 153) knew only the second of these, but mentions the Geneva edition on Morhof's authority, with the remark that if Morhof be right the work must have appeared at two places in the same year, which he apparently thought improbable. The Geneva epitome, however, is considerably altered in arrangement from the complete work. Morhof (Polyhistor, Lubecæ, 1714, I. p. 244) calls it specifically an epitome, but that distinction has escaped Beckmann.

jottings, with only occasional references to authorities, and in no sense can it be viewed as a historical treatment of the subject. The work came accidentally under my notice, but I found that Beckmann had already reckoned it among the histories, although under protest. Book IV. throughout deals more or less with arts and discoveries, but chapter cii. is specifically entitled "De diversarum rerum inventoribus." This section will be found in vol. II. p. 97, of the Geneva edition. It is a mere catalogue, however, even more curt in its notices than that of Pastrengo.

Another of the books mentioned by Beckmann (Trans. Archaol. Soc., Glasg., 1883, vol. II. p. 231) has recently come into my hands. It is the one entitled Verum Inventum, Hocest, Munera Germania, by Count Michael Maier, printed at Frankfurt in 1619. It is a sort of defence of the German people against one of Owen's epigrams, and among the inventions claimed for them are gunpowder, printing, the reformation of religion, the reform of medicine by Paracelsus, and the secrets of the Rosicrucians. It is not a systematic history and not a minute research, but it shows that the author, with all his fantastic beliefs, was a man of learning and acquirements. The Count was a voluminous writer, and his works, even a century and a half ago, were described by Dufresnoy as rare and much sought after by the curious. They are so still.

A history, purely English in its origin and treatment, appeared anonymously in 1661. Although the life of the author has been recorded by Wood, and the work has been described in detail by William Oldys, as well as mentioned by other writers, both the author and his work are practically unknown. The author was Thomas Powell, a native of Brecknock, who lived between the years 1608 and 1660. He wrote a few other works, some original, others translated from the Latin, the French, and the Italian; but that which is of special interest to us at present is entitled Humane Industry: or, a History of most Manual Arts, London, 1661. It was forgotten until Bolton Corney, having got the book, observed that his name had dropped out of the biographical dictionaries, and then hunted up the author in Wood's Athena.

¹ Athena Oxonienses, ed. Bliss, London, 1817, vol. III. col. 507.

^a British Librarian, London, 1738, pp. 42-59.

Notes and Queries, London, 1849, vol. I. p. 102.

This was, of course, before the days of Allibone, who has given Powell a place, and has quoted Wood and Oldys, the only authorities on the subject. Bolton Corney's copy of the Humane Industry belonged previously to the well-known antiquarian, John Brand. Corney concludes his notice by speaking of the work "as one which deserves a place in every choice collection of English books." Long before him, however, Oldys had perceived its value, and had displayed a particular interest in it, as I have ascertained definitely by referring to his copy, now in the British Museum.* That copy is a historical one, and belonged to several notable men. inside of the first board are the following notes. At the very top: "F. C. Waldron." Below that, "Nov. 12, 1760. This Book was presented to me "by Francis Grose, Esq., Richmond Herald. And. Ducarel. The MSS. Notes "are by Will, Oldys, Esq., Norroy, who had given it to Mr. Grose, This "Book to go among my Manuscripts on account of the MS. notes. "Coltee Ducarel, Oct. 15, 1761." On the title page: "William Waldron, 1812." and also, "W. O., 1715;" i.e., William Oldys. After the words Humane wit stands in Oldys' writing: "By Dr. Tho. Powell, Canon of St. David's, who dyd 1660." On the last board is pasted the book-plate of Ducarel, with his name: "Andrew Coltee Ducarel, LL.D., Doctors' Commons."

This copy is especially interesting by the labour Oldys has expended on it. He has inserted in his very neat and distinct handwriting many new entries in the Index, and has appended the pagination to the whole of it. There are numerous marginal notes, additions, and criticisms throughout, and Oldys was in the fair way to have brought out a revised and enlarged edition. That, however, he never did, but twenty-three years later published a long abstract of the original.⁴ The introduction to his abstract may be quoted:

¹ Dictionary, vol. II. p. 1656.

⁹ 7944 aaa.

⁸ Andrew Coltee Ducarel was Librarian at Lambeth Palace from 1757 to 1785, and was one of the most distinguished antiquarians of his time. See Cave-Browne, *Lambeth Palace and its Associations*, Edinburgh, 1883, p. 105.

⁴ British Librarian, Lond., 1738, pp. 42-59. The British Museum copy of this book also is an interesting one. It contains bound along with it several MSS., including a short notice of Oldys, one signed by Ducarel, a pedigree of the Oldys family, &c., but these, though interesting in themselves, are in no way connected with our present sketch.

"The Author of this learned Book has, with great Labour, join'd many dispersed Rarities of Art under several Heads; with much Modesty, brought a great deal of Reading into a "little Compass; and, withall, omitted to prefix his Name to it. Yet, in justice to his "Memory, we have been obliged with it by another Hand. [In a foot-note he quotes "Anthony a Wood]. There is a short Preface or Advertisement to the Reader, seemingly by "the Bookseller, in Commendation of the Work; wherein he says, You will imagine your-"self, even among the Mechanic Arts, to be conversant in the Liberal. Tho' from the Defect of the alphabetical Catalogue, intended at the beginning, of the principal Authors mentiond in this Work; with some Errors in the Table of Contents, and the Omissions in the Index of any Reference to the pages; we might, alone, without any other Knowledge of the Author, or the time when he died, have presumed he did not supervise the Press, yet are those "Imperfections of little moment, because the Work is concise."

In this he refers to deficiencies, which, as I have already mentioned, he tried to supply in his own copy.

Powell's little work is divided into twelve chapters, each of which he glorifies with a Greek title. They are: of Dials; of Spheres; of Machines for Motion; of Writing; of Printing; of Painting; of Spinning; of Music; of Glass; of Sailing; of Taming of Wild Beasts; of certain pretty knacks and extravagancies of Art. The brevity of the treatment shows the author's mastery of the material, and all that has been said of Powell and his book will be confirmed by every unbiassed reader. Of course, one would never place Powell's book in comparison with Polydore Vergil's. It is not nearly so detailed or so comprehensive, and the author seems to have aimed at chronicling discoveries which Vergil had omitted. Powell's book besides, contains no controversial matter; it is written without extravagance, and has an agreeable flavour of quaintness and humour.

From the abridgement and from Bohn's edition of Beckmann's history, already spoken of, no one could form any idea of the genuine English translation. The second edition printed in four octavo volumes, in 1814, I have recently seen and it is undoubtedly the best reproduction of the original. Not to speak of its very much handsomer appearance, it contains many notes—full of interesting matter—that are omitted by Bohn, and each volume is furnished with very valuable indexes both of authors and of subjects. This edition is superior to the first, as it contains a fourth volume, but I have found that even in this edition the whole of the original is not present. The article, for instance, on the bibliography of the histories, which has been so

often referred to is not in it, but there can be no doubt that this is the best English edition of the book.

With Beckmann and the other historians, I thought the modern list had been exhausted, but there are still one or two works which had escaped me. One by J. Fred. Lake Williams was published at London in 1820, the other by Wm. Pulleyn in 1828. Both of these books leave a curious impression on the reader, chiefly of surprise, not merely at the increase and development of practical invention, but at the complete change of thought and expression, in less than sixty years in this country.

Williams' book bears directly on the subject of these notes—being a history of inventions for the well-being of man. In the introduction he speaks very correctly of the importance of his theme, and the little attention that had been paid to it, and then he enumerates the authors who have dealt with it, among whom are Polydore Vergil, Pancirollus, D'Origny, Beckmann, names now familiar to us. He is severe on Beckmann, for the desultory and non-systematic character of his history. Having already pointed out Beckmann's merits, which not only far outweigh his want of system, but leave his work even now quite unsurpassed, it is unnecessary to vindicate him from Mr. Williams' criticism. The best answer is given in Williams' own book, for it is to Beckmann that he is practically indebted for a very large proportion of his history. Williams' book is antiquated in matter and in manner. Of

Williams' history might have been allowed to rest in oblivion, but his treatment of Beckmann deserves more than a passing notice. It is not enough to say that he has copied a large part of his book from Beckmann's. In the midst of his unlimited drafts on Beckmann's learning and research, he occasionally quotes Beckmann's name in the text and notes! speaks of him as "a very respectable authority"! insinuates in one place that Beckmann raises a difficulty in order that he may parade his erudition! and then says that no one can have a greater respect for Beckmann's learning than he has! This—considering the use that Williams has made of it—is the very finest original remark that Williams ever made. Comparison of the articles on Apothecaries by the two writers will illustrate Williams' method. Beckmann begins with an apology for his want of a technical knowledge of pharmacy and wishes that the article had been written by a physician. Williams also begins with an apology; next he gives a short extract from Diodorus Siculus and one from Sir Thomas Browne, and then he proceeds to the main theme, "at the same time, lamenting that it is not treated of by a medical professor"!! What follows is a condensed copy of Beckmann's article, in the words of the English translation of 1814—but with one or two misspelt foreign names.

the great discoveries in chemistry which had been making for the previous forty years he takes no notice—the very name of the science is not even mentioned!

Pulleyn's book, *The Etymological Compendium*, or *Portfolio of Origins* and *Inventions*, is a curious gossipping collection, full of odds and ends of information. It has no pretensions to scientific or complete treatment, and is nothing more than a printed scrap or common-place book.

In the first part of these Notes I merely mentioned a book by Francis Sellon White. An opportunity has occurred to me of seeing it. Its title runs thus: A History of Inventions and Discoveries: Alphabetically arranged. By Francis Sellon White, Esq. F.A.S. Many years on the Military Staff in India. Printed for C. and J. Rivington, London, by Creasy and Baker, North Street, Brighton. 1827." It is fairly well done, readable, without any pretension to profound research or to the elucidation of any theory or principle, and contains no reference to any books, although it gives a list of authors and discoverers and inventors mentioned in course of the work. The information is reasonably accurate—as accurate as was going at the time—but in the article on "Books," the first printed book is said to be the Vulgate of 1462, and the second Cicero De Officiis, 1466; but in that on "Printing" the first book printed with metal types is the Latin Bible, 1450, then in 1457, came Fust and Schoeffer's Psalter, and Duranti Rationale Divinorum Officiorum in

About half-way through the article, Williams deliberately says that for what follows about continental apothecaries he is indebted to Beckmann's work, just as if he had not been quite as much indebted to the same work for the previous portion! and what is even more startling, though he has copied this same English translation almost word for word, yet he hopes that his immature acquaintance with the original language may not have prevented his rendering the sense; and, accordingly, he places himself upon the liberality of the public—a body, by the way, to which he often refers, and his self-imposed duty to which seems to have made him oblivious of his duty to Beckmann.

If it were not appalling, such—conveyance (as the wise would call it), such attempts not merely to throw dust in the eyes of "the public," but to make it high-gravel blind, such astonishing confidence that the parallelism between his book and Beckmann's could not be detected, would simply create inextinguishable laughter. Let us hope that the reviewers of 1820 did not hesitate to give a true opinion of Williams' history. One would like to know whether or not Sign. Narducci, to be presently mentioned, would consider this a case of plagiarism.

1459. Such slips, doubtless, detract from the book, and there are probably others; but on the whole the book is not a bad one.

Under the title: Chronologische Uebersicht der Erfindungen und Entdeckungen, Adolph Poppe drew up a list of inventions and discoveries in the physical sciences, of which I have the second edition, printed at Frankfurt in 1857. It forms a small pamphlet and is a disappointing production, in which the subject is dealt with in a very meagre way, Considering the material at his disposal, it is far inferior to the lists of Pastrengo, Contarino, and Textor.

It should have been pointed out before that Karmarsch in his Geschichte der Technologie devotes the last section to a consideration of the literature and history of technological science in the modern period, and enumerates some of the chief works of a general character, histories, encyclopædias, dictionaries, magazines, journals, and proceedings of societies, which have appeared during the last hundred years.

II. Books of Secrets. A.—Coming now to Secrets and Receipts some additional copies of books already referred to may first be mentioned.

Foremost among these is the *Speculum Doctrinale* of Vincent de Beauvais, which deals more particularly with practical arts. As, however, I have already spoken this evening about Vincent's whole work, there is nothing more to add at present.

Of the encyclopædia of Bartholomew Glanville there have been quite recently four copies in catalogues, besides that of 1485 formerly described by me. One is of an early edition, without date, but printed about 1472, another of 1491, a third of 1492, by Koburger, and a fourth—the most valuable of all—the English version of Trevisa, printed by Wynkyn de Worde. It is somewhat remarkable that so many copies of this old work should have been met with for sale within the last couple of years, while other books of much more recent date have kept quite persistently out of sight. But all of these, I regret to say, have proved unattainable. I have here, however, a copy of the De Proprietatibus Rerum written on paper, in a small and very contracted hand, belonging, so far as I can judge, to the 15th century. It shows how much the book was thought of when manuscript copies were

multiplied as they seem to have been. Glanville's book is of a very miscellaneous description, and contains many practical receipts.

¹ Since the above was written I have met with a paper by Sign. E. Narducci, read to the Accademia dei Lincei at Rome, in January, entitled: Intorno ad una Enciclopedia finora sconosciuta di Egidio Colonna, romano, ed al plagio fattone dall' inglese Bartolomeo Glanville (Atti della Reale Accademia dei Lincei. Serie Quarta, Roma, 1885. Vol. I. p. 67). The author describes a vellum MS. in 12mo, written in a very small and contracted hand of the end of the 13th century, and containing 164 leaves, in the first 121 of which there is a treatise in seven parts on the heavens, animals, minerals, &c. It concludes: Explicit liber de proprietatibus rerum. The name of the author has been obliterated, but Narducci endeavours to prove that the work was composed between 1281 and 1291—that the author was Egidio Colonna, and that besides this MS. there are probably a few others containing the same compilation.

The second part of the paper contains an attempt to substantiate for the first time a charge of plagiarism of this encyclopædia against Bartholomew Glanville. The author asserts that in many places Glanville has copied ad litteram from Colonna and the proofs are as follows:

First—Glanville has distinctly stated that his work is a mere compilation, and that he has put in very little of his own, and he gives a list of 105 authors from whom he has borrowed, besides quoting others in the text. Neither in this list, nor in the text does Colonna's name occur, and consequently, the author argues, it has been deliberately suppressed.

Secondly—Comparison of the two works displays resemblances which can only be accounted for by supposing that Glanville actually copied from Colonna. As a proof of this the author quotes a paragraph de Magnete from each, and prints them in parallel columns for the sake of comparison.

As to the first argument it seems to dispose of itself; for if Glanville quotes in good faith every author and does not quote Colonna, the conclusion seems to be not that he stole from him and did not tell, but that he did not know him at all, and consequently could not steal from him. The author appears to me to assume the plagiarism and then to interpret Glanville's silence in the most unfavourable way.

Secondly—Parallel passages are after all the best proof of copying if any such existed. I have gone with some care over the passage quoted, and I assume that Sign. Narducci has chosen one that will set the plagiarism in as strong a light as possible.

The paragraph from Colonna contains 51 lines, that from Glanville 42 lines. Of these, 23 lines are identical, simply because they are both using confessedly the same authorities, namely Isidorus, St. Augustine, and Dioscorides. Of the remaining 19 lines in Glanville not one occurs in Colonna, and the remaining 28 lines of Colonna which contain a mystical application of the magnetic attraction are wanting in Glanville. The plagiarism therefore consists in each of them copying the same authors, and Sign. Narducci should prove that Glanville took the passages from Colonna and not from the originals. But Glanville's quotation from Isidorus is longer than Colonna's.

I am not concerned much to vindicate Glanville, even if the preceding be not the strongest evidence against him, but one or two additional points may be mentioned in his favour.

In the previous notes I just alluded to the tracts *De Secretis*, by Albertus Magnus, but I can omit them no longer without leaving the present research more defective than it need be. They are, besides, so closely connected with the corresponding work of Michael Scotus, to which I hope to return before long, that the bibliography of them must be taken either with that of books of secrets in general or with that of Michael's. I prefer the former arrangement, and will enumerate the editions which I have seen, leaving the historians of early physiology to deal with the contents. That part of the subject would be, besides, somewhat out of place in the present society.

So far as can be judged by Sign. Narducci's description Colonna's encyclopædia must be much smaller than Glanville's. The MS. has 121 leaves, 12mo, and contains seven books. Glanville's work contains nineteen books and in all the forms of it I have seen, both printed and manuscript it is a bulky volume, ingens volumen, as Bale calls it (see the list in Part II. of these notes). Thus my MS. above mentioned contains only fifteen books. It is in small folio, double columns, it is written in a small and very contracted hand, and these fifteen books fill 98 leaves, each of which probably contains three or four times as much as the other. At the same rate the complete work would occupy about 125 leaves. It is obvious, therefore, that even supposing Glanville had incorporated the whole of Colonna's encyclopædia as it stood (and it has been proved by the above analysis that he did not), he must have had other sources from which he gathered the rest of his material.

Glanville's book as I have shown formerly, as well as on the present occasion was printed repeatedly. Hain (Repertorium Bibliographicum, I. Nos. 2498—2523) enumerates 26 editions in Latin and other languages printed before 1501; Atkinson (Medical Bibliography, p. 176), enumerates 42 editions in all. Sign. Narducci makes no attempt to explain how Glanville's encyclopædia had so wide a circulation and how Colonna's, to which, he thinks, Glanville was so much indebted, had little circulation as a manuscript, never got into print at all, and has been utterly lost sight of for 600 years. Glanville's book undoubtedly served its day and generation, and if any of Colonna's material was incorporated in it—which has not yet been proved—then it is the only portion of that writer's compilations which was ever turned to any account, had even a chance of being known, and proved ever to be of any general use. If Glanville copied, then it was he who put so much of Colonna's work in circulation which Colonna obviously could not do for himself.

Is there any proof that Glanville did plagiarise in the nineteenth century meaning of the word? Both were compilers—and compiling in their time meant copying and arranging. Did Glanville appropriate Colonna's original ideas in his actual words, without acknowledgment, and attempt to pass them off as his own? There is no evidence of this. Did Glanville do more than, finding certain passages, transfer them to his pages? As far as Sign. Narducci's quotation shows Glanville copied from three authors who had been already copied by Colonna. But he did more, he made a longer quotation from one of them than Colonna made, and he quoted another writer whom Colonna did not quote.

Two different compilations are ascribed to Albertus Magnus. One is styled Liber aggregationis seu Liber Secretorum de virtutibus Herbarum, Lapidum, et Animalium quorundam. The other is De Secretis Mulierum, which has been ascribed to Henricus de Saxonia, a pupil of Albertus. These two tracts are sometimes printed separate, sometimes together. They passed through a very great number of editions, both before and after 1501. Of these there are certainly far more than fifty, and it would not surprise me in the least to be told that, with the reprints in chap-book form, there is double that number. Forty-two editions prior to 1501 of the two tracts are enumerated by Hain, and between thirty and forty editions are entered in the British Museum Catalogue. I have not gone into the details of this bibliography, but as I happen to have a few of the editions, and to have consulted some of those in the British Museum, I may notice them as briefly as will serve for their identification.

The first I have is that numbered 555 by Hain. It is a small quarto of 33 leaves, without date, place, and name of printer. The text is printed in a medium Gothic character; the commentary in one somewhat smaller. As Hain's account corresponds exactly with the copy I possess, description is unnecessary.

The second copy is similarly described with perfect accuracy by Hain under number 563. In it only the first two or three words of the text of each chapter are given, and the rest is made up of commentary. The com-

But there is another point worth considering: how much were they both indebted to a much greater compiler, Vincent de Beauvais?

After all it is of little importance if Glanville be proved to be as much an appropriator of other men's compilations as Mr. J. F. Williams already mentioned. If it were proved, I for one would accept the inevitable, but I do not think that Sign. Narducci has established his accusation.

Those who are concerned to know more about Glanville may consult, among others, the accounts of him given by Bale (Illustrium Maioris Britanniae Scriptorum . . . Summarium, Gippeswici, 1548, f. 153 b); Pits (De Rebus Anglicis, Parisiis, 1619, p. 494); Cave (Scriptorum Ecclesiasticorum Historia Literaria, Oxonii, 1743, Vol. II., Appendix, p. 66); Oudin (Commentarius de Scriptoribus Ecclesiae, Lipsiæ, 1722, col. 969); Quétif and Echard (Scriptores Ordinis Pradicatorum, Lutet. Paris. 1719, Tom. I. p. 486); Tanner (Bibliotheca Britannico-Hibernica, Londini, 1748, p. 326); and the articles in the encyclopædias and the biographical dictionaries.

mentary, however, is different from what one usually finds, and according to Hain is the same as that which was printed at Vienna by Johann Winterberg.

This edition is further distinguished by a curious misprint in the colophon, which runs:

Explicit liber Alberti magni de secretis mulierum. | 1428. vicesimaquarta die mensis Iunii. |

The year in this case is obviously wrong; it may be either 1478 or 1482. I take it to be 1482. The volume is a small quarto of 56 leaves, printed in Gothic character, and has no place or printer specified.

The next copy is one of such surpassing rarity that Hain never heard of it, and only two copies altogether are known. It is the edition printed by Machlinia in London about 1483, and is one of the finest specimens of the press of that printer. As an account of this volume would take too much space here, I intend considering it in a separate paper.

The fourth copy is also undescribed by Hain, but the probability is that, if he knew it, he considered it later than 1500. As I have found no mention of it anywhere, the following description may prove useful:

F. 1 a, with signature, a.1. (s) Cribit philosophus | philosophorum prin | ceps. quarto. ethico | rum. Hō est opti- | mum eoru3 que sūt | in mundo. Et mun- | dus sumitur etc. F. 44 b, l. 16: Finit tractatulus venerabilis Alberti magni. | Sequuntur capitula huius libri. | Ends: Ca. duodecimū & vltimū de gñatiōe spermatis in viro. |

It is a quarto, with signatures are in eights and f4, 44 leaves in all. It is printed in Gothic character, with 33 lines to the page, and has neither date, place, nor printer's name. This edition contains the text in full, with the usual commentary.

After getting into the sixteenth century, we pass from quartos to copies of a smaller size. I have one such here. The title is as follows:

¶ Secreta mulieru et vi- | roru ab alberto magno nu | perrime composita. | 1526. |

¹ In this edition (Hain 562) Henricus de Saxonia is distinctly specified: F. 2 b. Tractatus Henrici de saxonia Alberti magni discipuli de secretis mulier? que ab Alberto excerpsit feliciter incipit. I have not seen this book.

² The paper containing an account of this volume and of the almost equally rare *Liber aggregationis* also printed by Machlinia, was subsequently read to the Society of Antiquaries, London, Feb. 19, 1885.

- On the reverse of the title: Scribit philosophus philosophorum princeps | Hō est optimu3 eo 4 q sunt in mūdo & mundus | etc. The text begins on fol. 2 a, with signature Aij.
- Then f. 36 b, l. 22: ¶ Finit Tractatulus venerabilis Alberti | magni de secretis mulierü & virorum. | followed by the fleur de lis.

It is a 16mo, with signatures A—D in eights, and E 4, 36 leaves in all. It is printed in a small Gothic character, 40 lines to the page; has no catchwords, but has titles to the different sections of the text printed on the outer margin. There is no place, or name of printer. This reprint contains the usual text and commentary. The title-page is enclosed in an ornamental border, and the device is a large fleur-de-lis.

Among the copies in the British Museum I examined one printed at Antwerp in 1538. The title goes wide of the usual form, and as this book is not a common one, the following account may be inserted:

F. 1 a. Title. Alberti | Cognomento Magni | Libellus qui inscribitur de Formatione ho- | minis in vtero Materno, vel vt notiori Titu | 16, Secreta Mulierum, Nunc recens ex Ar- | chetypo exscriptus, exactiori diligentia | recognitus & à multis prodigiosis | mendis repurgatus. Cui tandem | accesserunt scolia non minus | philosophiæ, quàm Me- | dicinæ candidatis | vtilia.

Respuit ornatum, per se contenta doceri Ingeniosa physis, respuit & phaleras. Id quod permuncta olfaciës hic nare libellus, Rudius & crasso disserit ore Physin.

- F. 1 b. Prohemivm. | Scribit Philosophus Philosophorum prin- | &c.
- F. 2 b. Dilecto sibi in Christo socio & | amico. N. clerico de tali loco | verse sapientize & c.
- F. 55 b. Finis lib. Alberti cognomento Magni de homine, | quod si mauis, vt alij, de embryonis figmento, seu | secreta mulierum cum commentariis auctis, & re- | congnitis (sic) singulis, exactéque ad limam reuocatis. | Antuerpiæ, ex officina Viduæ Martini Cæ | saris. Anno à Christi natiuitate, M.D. | XXXVIII. mense Octobri. |

Small 8vo, signatures A—G, in all 56 leaves, of which f. 56 is blank. The text is in roman character, the commentary in italics.

The next copies I have to mention display one of those mysteries of printing and publishing, the meaning of which I do not profess to explain.

F. r a. Alberti | Cognomento | Magni de secretis Mulie- | rum, Libellus, scholijs auctis, & à | mendis repurgatus. | Eivsdem De Vir | tutibus Herbarum, Lapidum,

- & Ani- | malium quorundam libellus. | Item De Mirabilibvs | mundi, ac de quibusdam effectibus | causatis à quibusdam ani- | malibus, &c. | Lvgdvni | 1566.
- F. 2 a. (With signature A 2.) Procemivm. | Scribit philosophus philosophorū | princeps: Homo est optimū eorum | quæ sunt in mundo: & . Ends: Dd &s:

 Alberti Magni De | Proprietatibus Herbarum, | Lapidum, & Animali- | um quorundam. | Finis. |

This is a 32mo, signatures A—Dd 8, in eights, ff. 216. Catchwords. The text is printed in italics 16 lines to the page; the commentary in roman character, 23 lines to the page. The printer's name is not given.

The second copy is as follows:

- Titls. Alberti Co- | gnomento Ma- | gni de secretis Mulierum, Li- | bellus, scholijs auctus, & | à mendis repur- | gatus. | Eivsdem De Virtv- | tibus Herbarū, Lapidum, | & Animalium quo- | rundā libellus. | Item De Mirabilibvs | mundi, ac de quibusdam effectibus | caussatis à quibusdam ani- | malibus, &c. | Lvgdvni | 1566.
- F. 2 a. (With signature A 2.) Procemivm. | Scribit philosophus philosophorü | princeps: Homo est optimü eo- | rum quæ sunt in mudo (sic): &c.
- F. Dd 8a. Alberti Magni De | Proprietatibus Herbarum, | Lapidum, & Animalium | quorundam. | Finis. |

This is a 32mo, signatures A—Dd 8, in eights, ff. 216. Catchwords. The text is printed in italics, 17 lines to the page: the commentary in roman character, 22 lines to the page. The printer's name is not given.

Though printed at the same place, in the same year, and in the same size and style, these two books are quite different. I am inclined to think, however, from the superior finish of the latter copy, that it is a later reprint, copied, it may be, even to the date.

These editions, it will be observed, contain both the tracts.

Just at the close of the century a new start was made in the printing of Albertus' tract. It was accompanied by that of Michael Scot, and a great number of editions appeared. The earliest I know of is dated 1580, but that which I have seen is of 1598, and there is a copy in the Douce Collection in the Bodleian.

As the title of this occurs in later editions, it may be quoted as typical:

Alberti | Magni, | De Secretis Mulierum | libellus, scholiis auctus, & à | mendis repurgatus. | Eiusdem de virtutibus herbarum, lapidum, & | animalium quorundam

libellus. | Item de mirabilibus mundi, ac de quibus- | dam effectibus causatis à quibusdam animalibus, &c. | Adiecimus & ob materiæ similitudinem Mi- | chaëlis Scoti philosophi, De secretis naturæ | opusculum. | Cum Indice lo rupletissimo. | Lvgdvni, | Apvd Anthonivm De Harsy. | MDXCVIII.

It is a square 16mo, pp. 381; Index, pp. 9, not numbered; and a blank leaf.

A reprint of this book, in the same form, was brought out in 1607 at
Strassburg, by the well-known printer and editor Lazarus Zetzner. There is
a copy in Sir William Hamilton's Collection in the University Library.

In 1615, at Frankfurt, the tracts of Albertus and Michael were published simultaneously, but in separate volumes. They were printed by Johann Bringer, and were got up in exactly the same style. The title of that of Albertus is as follows, taken from the copy in the British Museum:

Tractatus | Henrici | de Saxonia, Al | berti Magni Disci- | pvli, De Secretis Mvlie- | rum, in Germania nunquam | editus. | Accessit Insvper Eivs- | dem de virtutibus herbarum, lapidum, | quorundam animalium, aliorum- | que libellus. | Francofvrti | Excudebat Iohannes Brin- | gervs, opera & impensa Pe- | tri Mvscvli. | M. DC.XV.

The text is practically the same as in the common editions, but it is differently divided. The commentary also is different, but whether it is identical with that in Winterberger's and the 1428 (sic) editions, or is different from it, I am unable to say. The second part of the volume contains the Liber Aggregationis.

A republication of these tracts was subsequently carried on at Amsterdam. The earliest edition I have met with is in the British Museum:

Albertvs | Magnvs | de | Secretis | Mvliervm. | Item | De Virtutibus Herba- | rum Lapidum et | Animalium. | Amstelodami, | Apud Iodocum Iansso- | nium. A°. 1643.

It is a small volume in 24mo, with an engraved title, 366 pages of text, and 5 leaves of Index. This work appeared several times with some variations in the number of pages and in other details. It is unnecessary to do more here than give the dates: 1648, 1655, 1662, 1665, 1669 (2 issues), 1702. There were also editions of 1652 and 1760 in Latin, but I have not seen them.

Notwithstanding these and a great many more editions in Latin, the work was translated into the modern languages—French, German, English, and even Polish.

The French translation was first printed about the middle of the sixteenth century, and from that date to the beginning of last century only a very few editions were published. Last century, however, a translation with additions and alterations was issued in 1706, and a considerable number of editions followed; ten have been enumerated. To one, that of Cologne 1722, reference has been already made, and I have seen a reprint of this which professes to have been printed at Lyons, and has the date 1729.

The present century is that of chap reprints. Nisard has mentioned some of these, and I have one printed at Lyons, with the false date 6518, that is: 1856 or 1865. It is entitled *Les admirables Secrets d'Albert le Grand*, and it forms a small 12mo, with a frontispiece and four woodcuts of the vilest chap-book character. They are hideous caricatures of the engravings in the 1722 edition.

A much more important work is the treatise Les Secres des Dames, edited from ancient manuscripts by the Drs. Colson, and published at Paris by Rouveyre in 1880. This is a critical edition, giving in the introduction an account of the MSS., followed by the text, with notes, a glossary, and supplemental notes, including a bibliography of the French translations. In the meantime this, so far as I know, is the best work on the subject; while, apart from its literary merit, it has the additional attraction of being beautifully printed in black letter; and there are, besides, only 342 copies printed. It has, therefore, all the qualifications for becoming a bibliophile's book. It ought to be remarked, however, that only the matter of this book is taken from Albertus Magnus, and that it is not an actual translation of the De Secretis Mulierum. The relationship of the two works is discussed by the editors in their introduction.

Of the German versions there seem to be varieties also. Of an older form, I have a copy entitled *Eln Newer Albertus Magnus*, printed at Frankfurt by Weygandt Han, without date, but early in the sixteenth century. In this the *De Secretis Mulierum* is reduced to a minimum, and practical directions are given which are not contained in the earlier edition.¹ This

¹ This edition is well supplied with woodcuts, which were reproduced in the corresponding English treatise, entitled " *The Birth of Mankinde*," by T. Raynalde. This latter is said to be a translation of the work of Eucharius Röslin: *Der Swangern Framen und*

is followed by an account of the secrets of plants, animals, and minerals; and then come receipts for curing various bodily afflictions, and a special tract upon the plague. Having only one edition, I am unable to trace the history of this compilation, but there are undoubtedly earlier editions, possibly with a closer resemblance to Albertus' work.

The more modern translation is based on the joint edition of Albertus and Scotus. The oldest copy I have seen is in the British Museum:

Von den Geheimnüssen derer Weiber: wie auch von den Tugenden derer Kräuter, Steine und Thiere: und den Wunderwercken der Welt. Nürnberg, In Verlegung Johann Hoffmanns, seel. Wittb. und Engelbert Streck, . . 1701.

The engraved title-page, however (which is a very poor reproduction of that found in all the Amsterdam issues) bears date 1678. So it would seem as if there had been an early edition, and that residual copies of the title-page had been prefixed to that of later date.

In 1725 the same book appeared at Nürnberg, published by the same firm. Both of these books are in small 12mo, uniform with the Latin editions,

The English editions are to us perhaps the most interesting. The title is given by Lowndes:

—The Booke of Secretes— of the Vertues of Herbes, Stones, and certaine Beastes.

Also a Booke of the same author of the maruaylous thinges of the world, and of certain effectes caused of certayne Beastes. London, by Wm. Copland.

16mo. Black letter. A to L4, in eights, the last leaf blank. This description is obviously taken from an actual copy. It is not in the British Museum. The one which is there is of a later edition:

The Secrets | of Albertys | Magnys. | Of the Vertues of Hearbs, | Stones, and certaine | Beasts. | Whereuuto (sic) is newly added, a short dis- | course of the seuen

Hebammen Rosengurten, s. a., 4to, (for which see Geschichte der Medicin, by Haeser, Jena, 1881, vol. II. p. 205). It is possible that the practical directions in the Newer Albertus Magnus are borrowed from Röslin's treatise, but I have had no opportunity of comparing them. The first edition of Raynalde's book, or translation, if it be really such, appeared at London in 1540. As described by Lowndes, and as may be seen from a copy in the Hunterian Library, it contains the same pictures as are contained in the German version now under consideration. They were repeated afterwards in the 1565 edition, of which I have a copy, with all the illustrations complete. The British Museum has no copy dated 1540, and its 1565 copy is imperfect. An account of this work of Raynalde's was communicated to the Society by Professor Young, M.D.

Planets, gouerning | the Natiuities of Children. | Also a Booke of the same Author | of the maruellous (or marnellous?) things of the | World, and of certaine effects | caused by certaine | Beasts. | Printed by W. Iaggard. 1617.

It is a 16mo. Signatures A—H, in eights (ff. 64). Black letter, but the title, preface to the reader (A2), head-lines, headings of the sections, words and lines in the text, are roman. Iaggard's translation compared with the other Latin copies exhibits some differences.

Twenty years later the book again appeared. I take the title as given by William Cooper:

Albertus Magnus, his secrets of the Virtues of Herbs, Stones, Beasts, &c. Lond. 1637, 8.

This book is not in the British Museum, and I have seen no copy of it elsewhere.

The translation of the *De Secretis Mulierum* was only executed last century. The title is given by Lowndes, and there is a copy in the British Museum from which I have taken it:

De Secretis Mulierum: Or, The Mysteries of Human Generation Fully Revealed.

Written in Latin by Albertvs Magnvs. Faithfully rendered into Englsh (sic),
with Explanatory Notes, and Approved by, the late, John Quincy. M.D.

London: Printed for E. Curll, at the Dial and Bible, over against

Catherine-street in the Strand. M.D.CC.XX.V. (Price 2s.)

It is a small 8vo, pp. viii; account of the author, [4]; text, 108.

This book seems to be not unknown to readers in the Museum, but it is not one from the perusal of which much, if any, profit can be got.

The preceding list will give a notion of the number and variety of the editions of this book which passes under the name of Albertus.

Allusion has been made repeatedly to a small German treatise on the arts, entitled Kunstbüchlein, of which the oldest version described belonged to 1531, and of which there were subsequent issues both in German and in Dutch.* I can now add other two to the list. The first is in German, and is entitled Ettliche Künste, auff mancherley weiss Dinten und allerhand Farben zu bereyten. It is a small octavo volume, printed by Christian Müller at

¹ A Catalogue of Chymicall Books, London, 1675, Part I.

² Trans. Archaol. Soc. Glasg., 1883, vol. II. p. 263, Nos. 10, 11, 12, and p. 269, No. 110.

Strassburg in 1563, and it consists of the sections relating to ink, colours, and etching upon steel contained in the *Kunstbüchlin*, evidently reprinted for the use of a special class of artists. The second is the English translation of this tract, to which reference was made on a former occasion. It is mentioned by Lowndes, as then stated, and I observed a copy in a catalogue some time ago which I failed in procuring, but I have since examined that in the British Museum (C 31 c 21). Its title is as follows:

Fol. 1 a. Title. A | Booke of Secrets: | Shewing divers waies to make and prepare all | sorts of Inke, and Colours: as Blacke, White, | Blew, Greene, Red, Yellow, and other Colours. | Also to write with Gold and Silver, or any kind of Mettall | out of the Pen: with many other profitable secrets, | as to colour Quils and Parchment of | any colour: and to grave with | strong Water in Steele | and Iron. | Necessarie to be knowne of all Scriveners, Painters, | and others that delight in such Arts. Translated out of | Dutch into English, by W. P. |

Hereunto is annexed a little Treatise, | intituled, Justructions for ordering of Wines: |
Shewing how to make Wine, That it may continue | good and faint not, Neither
become sower, nor loose colour. And | how you may remedie faint Wine, take
away the hoari- | nesse, with other instructions for the pre- | seruation of the
same. | Written first in Italian, and now newly translated | into English
by W. P. |

London, | Printed by Adam Islip for Edward | White, and are to be fold at his shop | at the little North dore of Pouls, | at the signe of the Gun. | 1596.

Sm. 4to. No pagination. Title, A3 and A4, B4, C4, D4, and E4 [ff. 19]. Printed in black letter.

The first tract contains a translation of pp. 33-74 and 84-88 of the Kunst-Büchlein, Frankfurt, 1687, corresponding therefore practically with the Ettliche Künste. A few receipts have been omitted, and there is nothing about dyeing leather or cleansing fabrics. Half of the date has been cut off, but it is obviously 1596, and is so marked on the back and in the catalogue of the British Museum. The second tract is of course from an entirely different source, and has nothing in common with the German and Dutch collections. The translator's name is W. Phillip, and I have no doubt that "Dutch" here means "High Dutch," that is German.

Of Levinus Lemnius' treatise De Occultis Natura, Libri IV. two editions have come into my hands. One was printed at Frankfurt by Wechel in

¹ Trans. Archael. Soc. Glasg., 1883, vol. II. p. 252, note.

1590, and is uniform with the later editions of 1604 and 1611, as well as with the 1592 edition of Mizauld's collection to be afterwards described. other was printed at Leyden by Abraham Commelin, about 1651-55. It has an emblematic engraved title; in the centre is a winged draped female figure. pointing with her left hand to a pile of books, musical instruments, armour, &c., while with her right she holds to her mouth a curved horn, wherewith she is proclaiming the emptiness of human works, as indicated by the word Vanitas which issues from the bell of the horn. At her feet in one corner is a little boy seated on a skull, engaged in blowing soap bubbles. The book contains an elaborate dedication to certain Amstelodamians. This is an in-It is one of two works printed by Commelin in the Elzevier style, and Willems' says of it: "La plus jolie des nombreuses éditions de ce livre curieux, faite sur celle de Plantin, Anvers, 1564, in-8 Le volume ne porte point de date; mais l'épître dédicatoire d'Abr. Commelin aux magistrats d'Amsterdam témoigne qu'il a vu le jour en 1651." There is no doubt that this is really the neatest of the editions. Willems it has eleven preliminary leaves, of which the first is blank—that leaf is wanting in my copy.

One of the most noteworthy additions I have been able to make to my list is a copy of the *Thesaurus de Remediis Secretis* of Gesner, quite unknown and undescribed. Every bibliographer I have consulted says the book was first published at Zurich in 1554, and I repeated the statement, with a copy of that edition before me.* But that which I have since got is dated 1552, and besides having a different title page, in which Gesner's name does not appear, exhibits distinct typographical variations. This is the earliest edition I know of; sit says: nunc primum in lucem editus, but whether it is the first edition of all I am not at present prepared to say. It is a nicely printed book, more attractive than the edition of 1554, which, although corresponding with it page for page, and even line for line, is not identical with it.

¹ Les Elzevier, Bruxelles, 1880. No. 1667. See also his introduction, pp. 422, 423.

² Trans. Archaol. Soc. Glasg., 1883, vol. II, p. 265, No. 40. The edition of 1554 is there described as complete with pp. 580, and index pp. 38. It ought, however, to have a supplement: Iacobi Bessoni De Absolvia Ratione Extrahendi Olea. . . Tiguri, . . . 1550; pp. 42 and 3 (?) blank leaves. The 1552 edition does not contain this supplement.

In addition to the copy of the Lyons edition of 1555 bearing the name Balthazar Arnollet, I have got an exactly similar copy of the same date, with the name of Antoine Vincent, who, as was formerly pointed out, published a French translation in 1559. There must have been some curious arrangements among the Lyons printers in the 16th century. I have already referred to two quite different issues of Albertus Magnus at Lyons in 1566, and now here are two identical copies with different publishers. Was it the habit to divide an edition among several publishers, and to let each have a title-page for himself—just as now-a-days manufacturers put on their goods the names of the different dealers, who are to retail them? The printer's name, however, at the end is Arnollet's, so that Vincent must have cancelled the other title-page, or else had one specially printed for himself, not caring whether the colophon agreed with it or not.

In attempting to ascertain when the first edition of the Secrets of Alexis, or Alessio of Piedmont, appeared, I have encountered a difficulty.

This standard collection is in four parts, which came out in different years. Brunet' makes a decided statement: "De' secrecti (sic) del reverendo Donno Alessio Piemontese sei libri. In Venezia, per Sigismondo Bordogna, 1555, in-8." From the statement of the author, or nominal author, we seem warranted in drawing a different conclusion as to the language and date of the first edition. In his general preface, Alexis recounts what led to his committing his secrets to writing. He had laboured long and eagerly to acquire knowledge, especially of the secrets of nature and of medicine; he knew many languages, had travelled incessantly, like Paracelsus had consorted with all kinds of people—scholars and artizans, rich and poor—and had amassed learning till he had become vain of his acquirements, a miser of his skill, and jealous of any one

¹ Manuel, Paris, 1860, I. col. 159. This is considered the first edition.

Watt (Bibl. Brit., I. 20m.) must have made an error when he says the first edition appeared at Basel in 1536, which place and date I repeated without knowing any better (Trans. Archaol. Soc. Glasg., 1882, II. p. 190). The place is wrong, and the date is plainly impossible; for if Alexis was in his 83rd year before he began his compilations at all, and the first part appeared in 1536, then he must have been in his 104th year when he revised the second Italian edition in 1557! But the preface to this edition disposes of such an absurdity as that, and shows that this must have been a mere misprint in Watt's list, though a misleading one.

knowing what he knew. So it happened that in his 83d year he came to Milan, where he was asked by a surgeon to assist in relieving the suffering of a patient; but seeing that the surgeon would claim the credit of the cure, Alexis refused until it was too late, and the patient died. He thereupon reproached himself with having been, through his jealousy and vain-glory, nothing less than the poor man's murderer, and the feeling of remorse was so strong that he withdrew himself to a solitary house in the country, and resolved to make amends by revealing all he knew for the good of mankind. He accordingly wrote out the first part of his secrets.

This was in 1555 (?) or 1556; for in the epistle prefixed to the Italian edition dated 1557 he tells us that in the previous year, actuated by the motives just described, he had compiled his secrets. The compilation, which was in Latin, was hurriedly done, contained mistakes and corrections and additions; but just as it was, without revision, it had to go to Venice to be printed. A few months later he was gladdened by hearing that it had already appeared in Italian, and had been very well received. In the meantime he had gone on preparing a second part, when, happening to be in a bookseller's shop in Milan, he saw a copy of the Italian translation of part I. He found it well executed, but faulty in various places, either from uncorrected mistakes in his own original work, or by the translator having misunderstood his meaning. The bookseller told him that as the copies had been all sold off, a new edition was going to be printed at Venice, and he added that he thought it was the author's duty to revise it before it appeared. Seeing the force of this, Alexis laid aside for a time the second part on which he was engaged, revised the Italian version of the first part, and added some new matter to it. The edition came out in 1557, and the following account of it is from the copy in the British Museum (42 f 19):

¹ The difficulty comes in here. If the author's story is to be taken quite literally, that the first edition was in Latin, and appeared the year before the second Italian version, that is, in 1556, then either Brunet's date 1555 is a misprint, or the author's story is inaccurate. The contradiction may be reconciled by supposing that though the second Italian edition bears date 1557, the preface was written really in 1556, and then the "previous year" would coincide with Brunet's date, and the edition he quotes would be the Italian translation referred to by Alexis as having been executed immediately after the original Latin work appeared. The fact is, however, I have no confidence in the accuracy of either Brunet or Alexis.

De' Secreti del Reverendo Donno Alessio Piemontese, Prima parte, diuisa in sei libri.

Opera vtilissima, et uniuersalmente necessaria, & diletteuole à ciascheduno.

Ora in questa seconda editione dall' autor medesimo tutta ricorretta, & migliorata. Et aggivntovi nel fine d'ogni libro molti bellissimi secreti nuoui.

Con privilegio dell' illustrissima Signoria di Venetia, & altri Principi, per anni XV.

In Venetia per Comin da Trino. M.D.LVII.

It is a small 4to, contains 24 preliminary pages, 191 numbered pages, and one page not numbered. The title is surrounded by a large border consisting of architectural ornaments, curtains, cupids, female winged satyrs, and two aged male figures at the bottom crouching and pointing to the title.

Besides the Venice edition, another appeared at Lucca, also in 1557, and, as I formerly mentioned, a reprint of this second edition was published at Lyons per Theobaldo Pagano in 1558. By the entries in the British Museum Catalogue, the further progress of the work can be traced: Part II., Milan, 1558; Parts II. and III., 1559; Parts I.-III., Venice, 1568, already mentioned by me, but not in the Museum. There is also an edition Lucca, 1559, not in the Museum, which I know of only by having seen it in a sale catalogue of alchemical books, along with a number of others of the same class.

Apparently, therefore, the first edition, which was in Latin, appeared in 1555 or 1556, and one can judge of the rapidity with which people got along even then from the fact that it was immediately translated into Italian, that it was translated from Italian into French by 1557, that a copy of the French version reached England, was turned into English, and the translation published in a small quarto volume by November, 1558. I have a copy of the first English edition. It tells its own tale of suffering during its three hundred and thirty years of existence; it was imprisoned in a Cathedral library; it is blotched and tender with damp and mildew; it has been riddled by bookworms; it has been the victim of some scribbler; it has been mutilated by carelessness and neglect, but its old body has been patched up, and it is surprising to see how well it looks. The title is as follows from the Museum copy:

¹ Trans. Archaol. Soc., Glasg., 1883, II. p. 262, No. 4. This is another Lyons piracy, apparently. The title page is an exact copy of that of Venice 1557, so that if one did not know any better, one might be apt to conclude that this was actually the second edition.

² Mr. Quaritch's Rough List, No. 47, Sept. 1880.

The | Secretes | of the Reverende | Maister Alexis of | Piemovnt. | Containing excellente remedies against | diuers diseases, woundes, and other accidents, | with the manner to make distillations, | parfumes, confitures, diyinges, co- | lours, fusions and meltynges. | A worke well approued, ve- | rye profytable and ne- | cessary for every | man. | Translated out of French into English, | by Wyllyam Warde. | Imprynted at London by Iohn Kingstone | for Nicolas Inglande, dwellinge in | Poules churchyarde. | Anno 1558. | Menss. Nouemb.

It is printed in black letter in small quarto, contains seven preliminary leaves and one blank (wanting in the Museum copy); text, 123 leaves; index, 10 leaves. In the Museum copy there is inserted before the index a leaf in italics of the table either of another edition, or a cancelled leaf of a table in italics, which was never printed, the printer having set it up in black letter instead. It may be noticed here that this first edition is not mentioned either by Watt or Lowndes. They quote an edition of 1559, of which likewise I have a copy. It is entirely different in typography from the edition of the previous year, and it may be reasonably supposed that the first edition was sold off as soon as it appeared and that a new edition was called for. Of the subsequent issues of this and the other parts I have seen various examples, and I may briefly enumerate those which I have more specially examined.

In the Hunterian Library I have found two sets of Warde's translations. One of these contains the first three parts, each with a separate title-page and pagination.

Part I. The secretes of the reverend Maister Alexis of Piemont. . . . London, Rouland Hall for Nycolas England, 1562.

The device on this title is a draped female figure on a pedestal, holding in each hand the bridle of a rearing horse; the legend "Armipotenti Angliæ" is inscribed in the surrounding scroll ornament.

If Lowndes be correct, this must be the third edition of part I.

Part II. The seconde part of the secretes of Master Alexis of Piemont,
. . . London, Jhon Kyngston for Nicholas Englande, 1560.

This is the first edition of this part, and like that of part I. was executed by the same printer. It has, however, an elaborate woodcut border to the title, whereas the title in the first edition of part I. is quite plain.

In the British Museum I have seen what is probably the second edition of this part, printed at London by Rowland Hall for Nicholas Englande, 1563.

Part III. The thyrde and last parte of the Secretes of the reuerende Maister Alexis of Piemont, . . . London, Roulande Hall, for Nycholas Englande, 1562.

This, I suppose, is the first edition of part III. The other Hunterian copy has parts I. II. and III. as in the preceding, except that the titles of parts I. and II. are wanting. It contains, however, the first edition of the fourth part, which was published posthumously, and was translated by Richard Androse. The title is as follows:

A verye excellent and profitable Booke conteining sixe hundred foure score and odde experienced Medicines, apperteyning vnto Phisick and Surgerie, long tyme practysed of the expert and Reuerend Mayster Alexis, which he termeth the fourth and finall booke of his secretes, and which in hys latter dayes hee dyd publishe vnto a vniversall benefit, hauing vnto that tyme reserved it onely vnto himselfe, as a most private and precyous treasure. Translated out of Italian into Englishe by Richard Androse.

Humilia la anima tua a Dio: a gran signori fa riuerentia, al gridar del pouero inclina le orecchie.

Imprinted at London by Henry Denham, 1569.

These parts are printed in black letter, in small 4to, with separate titlepages and pagination.

Subsequently there was an edition of the first three parts, dated 1568-66, to which was added the 1569 edition of the fourth part. There is a copy of this set in the British Museum, but I have not inspected it.

Of the next genuine edition, which did not come out for some years later, there is a copy in the British Museum, but I have myself got another here. The titles are the same as in the previous editions. Parts I. and II. were "Imprinted at London, by Jhon Kyngston, for Ihon Wight. Anno Domini 1580," and have no border round the title page. The device on the titles is the same draped female figure on a pedestal holding the rearing horses as is found on the 1562 edition of part I. At the end of each part is a woodcut of the standing figure of an elderly man clothed in a doctor's furred robe, with a biretta, holding a volume marked *Sciencia*. On either side of the figure are the letters I. W. The punning legend encircling the whole is "Welcom The Wight: that bringeth such light." The third part was "Imprinted at London, by Thomas Dawson, for Iohn Wyght, 1578." The title page has a scroll border, and the device is the doctor with the punning legend.

This edition is in small quarto, with separate pagination. It is a fine specimen of sixteenth century black-letter printing; the characters are narrower, sharper, and neater in every way than those used in the first and second editions.

The whole four parts appeared in 1595 with separate title pages, but uniformly dated and consecutively paged. I have already exhibited a copy wanting the last two leaves, but I can now place before you a perfect specimen of the book. There is no copy of it in the British Museum.

Taken together, these different examples give a very good representation of the earliest issues in English of this famous book. So far as I know it, the order of publication is as follows: Part I. 1558, Part II. 1560, Part III. 1562, Part IV. 1569; first edition collected: Part I. 1562, Part III. 1560, Part III. 1562, Part IV. 1569; second edition collected: Parts I. and II. 1568, Part III. 1566, Part IV. 1569; new corrected and enlarged edition: Parts I. and II. 1580, Part III. 1578; complete uniformly dated edition of the four parts, 1595. Both Watt and Lowndes mention other editions of the separate parts, but as I have no copies to refer to I am unable to say anything about them. The earlier joint editions seem to have been brought out irregularly as regards date; possibly the different parts were printed as they were wanted, and sets were made up with copies of different dates. The fourth part is the least common, and I have nowhere encountered a set of the first issues bound together. One in the British Museum is made up of Part I. 1558, Part II. 1563, Part III. 1562, and Part IV. 1569.

The 1573 edition of Wecker's German translation has been already mentioned. There is an earlier one which, according to the colophon, was printed by Perna at Basel in 1570. Unfortunately, the copy I have wants the title page, but as Wecker's dedication to Countess Anna Alexandria of Fürstenberg is dated 1569, I presume it is of the first edition. It forms a small, very well printed octavo volume, and it contains only the first part of the Secrets, divided into six books. The reprint of 1573 is distinctly inferior, but it contains a translation of the second part. I have not seen a German translation of the third and fourth parts.

¹ Trans. Archaol. Soc. Glasg., 1883, II. p. 251, and p. 262, No. 8.

A French translation of the first two parts of Alexis, along with a continuation from divers authors, by Christofle Landré, was printed at Paris by Hierosme de Marnef and Guillaume Cavellat in 1576. It is an obese little 16mo of 911 pages, with a copious table of contents and a few woodcuts of apparatus for distillation, which was the chief chemical process of the time. In the British Museum catalogue there is a previous edition by the same printers, 1573. It also has 911 pages, but no table is specified. A shabby reprint in octavo appeared at Rouen in 1637, "reveu et augmenté." The Museum catalogue contains a later reprint, Rouen, 1691. A Lyons edition of 1620 is also mentioned, but it is not in the Museum, and I have not seen it.

It may be remarked that with the exception of the Latin version, 1560, and the English of 1558; 1562-60-62-69, and 1580-78, the remaining editions which have been brought before the Society are, none of them, in the British Museum catalogue. On the other hand, the national collection is rich in the early Italian editions, and has the French translation printed at Antwerp in 1557, a Danish version, 1648, and other editions in Latin and in German.

What impresses me with an idea of the popularity of the work, as much as the number of editions and translations, is the state in which the copies one falls in with often are. They bear evidence of having been in pretty constant use, and they are not unfrequently imperfect. Of the numerous copies of the different divisions of the work which I have consulted and exhibited in part to the Society, six or seven are defective to a greater or less extent. Consequently, though there must have been many copies with a wide circulation, it is seldom that a really fine specimen, especially in English, comes in the way of the student. The two copies of dates 1580-78 and 1595 now shown are, therefore, exceptionally worthy of notice.

In the same volume containing the first edition of Wecker's translation of Alexis, to which it forms a kind of supplement, there is a copy of the first edition of Wecker's own tract about artificial waters, of which the later issue of 1616 has been already mentioned. It was printed at Basel by Perna in 1570.

Of more interest is the English version of Wecker's Secrets, which was

translated from the original Latin by Dr. R. Read, a physician. When engaged with Wecker before, I had no copy at hand; I have since got one, complete with the engraved title, but like all these books rather the worse of the wear. The engraved title contains portraits of Wecker, Read, Lord Bacon, Dr. Harvey, and three notable secret-mongers — Alexis, Albertus Magnus, and Raymund Lully. According to Watt and Lowndes, the book was first published at London in 1660. The present copy is dated 1661. It is possible that this is a genuine second edition, or it may be the original edition with a new-dated title page. In any case, the book is far from being common.

To the books already quoted may now be added Fioravanti's Secreti Rationali, Venice, 1564, the first edition, another, 1640, and a very much curtailed translation into Dutch of Baptista Porta's Magia Naturalis. This was printed at Leyden, in 1655, in a small octavo volume, and is announced as the third edition. By the elimination of a great amount of matter, the twenty books which the original contains are reduced to four, so that it is little more than the name of the Neapolitan's famous work.

By a copy now before me, I have ascertained that the Signora Cortese's collection of Secrets appeared at Venice in 1565. Whether this is the first edition or not I am unable to say, for unfortunately the authoress has not dated the dedication of her book to the most Reverend Monsignore Mario Chaboga, Archdeacon of Ragusi. The later edition of 1625 is a mere reprint of this one, without any alteration, and there was another reprint which appeared at Venice in 1677.

There is here, also, a rather famous Italian book, which, so far as my experience goes, is most uncommon. It is the first edition of *L'Arte Vitraria*, by Antonio Neri, published at Florence in 1612. It was this work which was translated and annotated by Christopher Merrett in 1662 and 1672, which

¹ So he is called on the title page, and his initials R. R. are at the end of the address to the reader. But Watt (Bibliotheca Britannica, II. 7942) and Lowndes (Manual, IV. 2057, Bohn's edition) call him distinctly Alexander. I cannot account for this discrepancy, if it be not merely a blunder, unless on the supposition that the issue of 1660, quoted by these two authorities, was edited by actually a different person from that of 1661.

There is said to be an earlier edition of 1592, but I have not been able to find it.

translation again was turned into German by Kunckel. Though of no magnitude, it is interesting as being one of the earliest on the subject. Neri was engaged in the famous works at Murano, where the exquisite Venetian glass was made, and this treatise contains the result of his experience. It is undoubtedly a very important book in the history of the art. It naturally passed through a large number of editions, of which the following are in the British Museum catalogue: Florence, 1612, 1661; Venice, 1663, 1678; Amsterdam, 1668; in German, 1679, 1689, 1756; in French, Paris, 1752; in English, London, 1662, 8vo; and 1826, folio, printed by Sir Thomas Phillips, at Middlehill. Besides the 1612, 1668, 1679 editions, I have put before you also a German translation by Geissler, Frankfurt, 1678; and a Latin edition, Amsterdam, 1686, and to these may be added an edition in Latin dated 1669, Amsterdam, 12mo. This is merely a re-issue of the 1668 edition, with a new-dated title-page.

Another work on glass and another first edition is Blancourt's, De L'Art de la Verrerie, Paris, 1697, 12mo. Of this, the English translation of 1699 was formerly mentioned. The volume contains an account of the making of crystal mirrors in France, round which there hangs altogether so curious a history. It hardly falls within the scope of these notes to say anything about the contents of the books, for that would lead us into surveying the whole of the arts and natural and physical sciences; but a narrative of the manner in which Colbert, about the middle of the 17th century, contrived to cut into the Venetian monopoly in these much-prized objects of art would almost tempt one to turn aside from the main topic of the present paper.

On a totally different subject is the book next in order of time: Plattes' Subterranean Treasure, reprinted as a thin quarto pamphlet at London in 1679. There is no difference between this and the first edition of 1639.

Lastly, one more edition¹ of a famous book may be mentioned here. It is the 1786 issue of the *Century of Inventions* by the Marquis of Worcester, and it is got up in precisely the same style as those published by Foulis and by Duncan, which have been already before the Society.

Of the Polygraphice, by Dr. William Salmon, the 8th edition of which

¹ I am indebted for it to the kindness of Dr. I. B. Russell, of this Society.

appeared in 1701, I have since seen the 2nd edition printed at London in 1673. It is a much smaller book, and confines itself more to the secrets of the fine arts than to those of the common arts. It contains some specimens of line engraving.

All the preceding are merely additions to the list already given. The concluding part of this research will contain notices of books of Secrets which have not been previously referred to. These stretch over a considerable period of time, and are of a curious, and in certain cases of a bizarre, character. This part will include an alphabetical list of the books referred to in the present and next part.



ERRATA IN TRANSACTIONS, VOLUME II.

P. 190, line 1, for Basel, read Venice.

P. 190, line 2, for 1536, read 1555, or 1556.

P. 232. line 12, for 1503, read 1501.

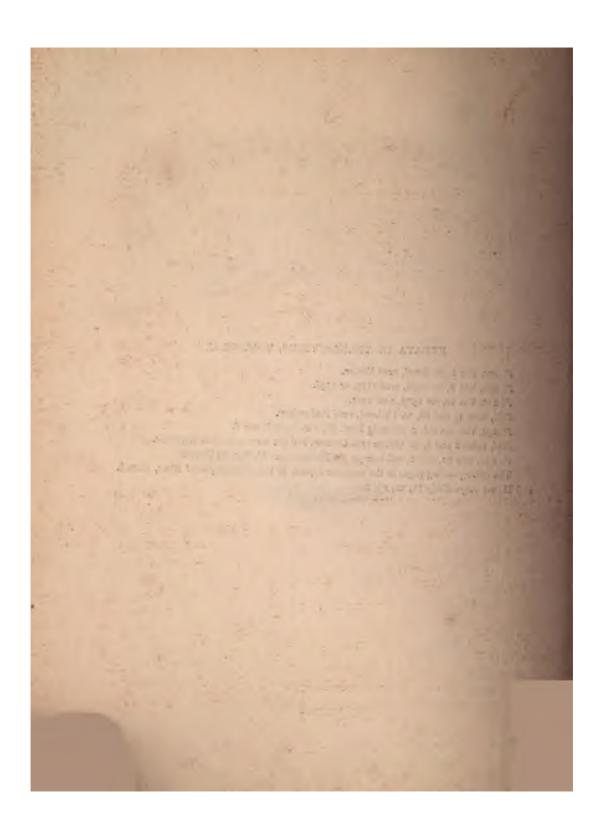
Ibid, lines 15 and 16, for Prebend, read Prebendary.

P. 233, line 20, col. 2, for 1585 Rom. (?), read 1585 Romæ 8.

Ibid, notes 2 and 3, for Grässe read Graesse, and the same correction elsewhere.

P. 234, line 11, col. 2, and line 30, for Medina, read Medina del Campo.

The corresponding pages in the separate reprint of the Bibliographical Notes, Parts I. and II. are respectively 11, 22, 23, 24.





BIBLIOGRAPHICAL NOTES

ON

HISTORIES OF INVENTIONS

AND

BOOKS OF SECRETS

PART IV

BY

JOHN FERGUSON, LL.D.

PROFESSOR OF CHEMISTRY IN THE UNIVERSITY OF GLASGOW

[Read to the Archaeological Society of Glasgow, January 15, 1885.]

GLASGOW STRATHERN & FREEMAN, 145 WEST NILE STREET 1888



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[Read at a Meeting of the Society, held on 15th January, 1885.]

B. In this part, books which have not been before referred to are to be considered. They are, on the whole, rarer than any yet described, inasmuch as they have been the last to disclose themselves to me during my researches. The collections already given, far from exhausting this section of the literature of physical science in respect either of separate works or of editions, have served rather to point the way to a more comprehensive survey, and have put me on the track of works of which I had at first no knowledge. The present part deals with all the divisions of the subject originally specified: with secrets of nature, cosmogony and general science; of natural and of black magic; of medicine and surgery; of physiognomy and generation; with secrets of the arts, household secrets and technical receipts, and finally, with one or two of the first cyclopædias. The books are arranged, as far as possible, by chronology of their respective authors.

The first compiler I have to mention is the French naturalist, Antoine Mizauld, or Antonius Mizaldus, who was born at Monluçon in the Bourbonnois, early in the sixteenth century. He studied medicine at Paris, graduated and entered upon practice, in which he was so successful, as to have merited the epithet of the French Æsculapius. Under Oronce Finé, he acquired skill in astrology, working it as a branch of medicine, after the

¹Transactions of the Archaelogical Society of Glasgow, 1886, New Series, Vol. I. pp. 188 and 227.

custom of those days. He was summoned to the Court, was a friend of the Princess Marguerite de Valois, and was a man of some mark. Persuaded that he had a nobler mission than that of healing, he relinquished his profession to devote himself to investigating the secrets of nature and to writing books. In the latter he succeeded, but in spite of his endeavours, nature kept her secrets still undivulged. He was devoted to astronomy and astrology, but he escaped the pitfall of alchemy. After what must have been a laborious life, he died in 1578.

Of those who have spoken about him. De Thou has given him praise. but it is rather overdone. He commends him for his rare learning and acumen, and says that his works will ever be esteemed by those who can judge of their themes. One fears that now-a-days there can be no competent judges; for Mizauld's works are utterly forgotten. They have, however, enjoyed a measure of popularity which has carried them down even to the present century; but a collected edition which was projected two hundred years ago by P. Ménard, a bookseller, was stopped, by Gabriel Naudé showing him that Mizauld was a very credulous person who had recorded many silly and extravagant things in his books. The result is that one can become acquainted with Mizauld's works only in their original editions, and most of these have become rare. Lists of his works, more or less complete, are given by some of his biographers.' They consist of almanacs and treatises on weather forecasts, on the planets, comets, cosmography and such like. Of those which may be included in the present notes, some I know only by name: De Arcanis Natura libri quatuor, Paris, 1558, 8vo; Singuliers secrets et secours contre la peste, Paris, 1562, 8vo; Secrets de la Lune, Paris, 1571, small 8vo.º This last book is of great rarity, and, on account of its contents, is somewhat in request. It treats of the connection between the moon and the earth. and the influence the satellite has on beasts, birds, fishes, men and especially women, stones, plants, trees, maladies, and what not. So the book can be judged by its title, and perhaps the author as well.

Another subject to which he paid attention was horticulture, and he wrote

ier, Theatrum, Norib., 1688, p. 1276. Niceron, Mémoires, XL. pp. 202-213.

^{24.} From the British Museum copy, 718. d. 27 (1).

books on different branches of it. One of these is entitled Secretorum Agri Enchiridion Primum, published at Paris in 1560. It is a small 8vo, rather nicely printed. In the first book the author treats of the garden, its site, soil and moisture; of manures; of sowing and planting; of hoeing, weeding and watering; of all the pests of a garden: insects, worms, mice, moles, frogs, toads, scorpions, snakes; of protection against hail, hoarfrost and lightning, blasting and mildew. The second book treats of vegetables and flowers; the third book of fruit trees, and that of all sorts. Like his other works, this one displays the author's learning, but it shows besides that he had some practical familiarity with the subject. There are other two collections by Mizauld:

Memorabilivm Aliqvot Natvrae Arcanorum Syluula, rerum variarū Sympathias & Antipathias, seu naturales concordias & discordias, libellis duobus complectens. Avtore Antonio Mizaldo Monlyciano.

Lvtetiae, Apud Iacobum Keruer, sub duobus Gallis via Iacobæa. 1554. Cvm Privilegio Regis.

This is a 16°, printed in italics. The above is from the British Museum copy [8460. aa. (3)], but Niceron's was dated 1555, and he quotes also editions of Franckfurt, 1592 and 1613. I have a copy of the 1592 edition here. It is a small 16°. Niceron says tersely: "Il y a bien des contes et des pauvretes dans cet ouvrage." That is correct, so far. From Pliny and other authors, more voluminous than critical, Mizauld collected many notable statements and anecdotes, which subsequent naturalists have replaced by others. He was a staunch believer in the harmony of nature and in the agreement and disagreement of different things, and wrote one or two books on the subject. It would be interesting to trace the parallelism between the ideas of sympathy, and antipathy, and harmony, with the more recent but less pleasant notions of selection, and struggle, and survival. That, however, is for the modern naturalist to do, if he feel so disposed.

The second collection is on a larger scale, and is rather more pretentious. It was first printed at Paris in 1566, but the copy in the British Museum [1170. C. I. (1)] which I have seen is of the following year:

¹ The titles are: Harmonia Superioris Natura Mundi et Inferioris . . . Paris., 1577, 8vo; and Harmonia Calestium Corporum et Humanorum . . . Francofurdi, M.D. XCII. 16°.

Memorahilium, veliil. Ac Ivevadorvin Centveix Novem, in Aphonismos Ascanorum cannis generis incupletes, perpulcine digeste. Avene Anton. Misaldo Monlveiano, Medico. Lectori.

Oune talle punctum, qui miscuit vule dulci :

Arina res, fateor, sed meditanda tamen.

Lytetise, Apul Federicum Morellum, in vico Bellounco, ad vrbanem Moren. M.D. LXVII. Ex Privilegio Regis.

This book was often reprinted: at Cologne, 1574; Franckfurt, 1589, 1592, 1599, 1613, 1673; and at Nürnberg, 1681, under the title, Misaldus Redistivus. Of these I have here the 1592 edition printed by Wechel, which contains also the Memorabilism . . . Sürvla, above referred to. It is uniform with the Sarets of Levinus Lemnius printed by Wechel, in 1590. The following edition is neither in the British Museum, nor in any of the lists:

Memorabilium, villii, Ac Ivevadorum Centvriie Novem, In Aphorismos Arcanorum omnis generis locupletes, perpulchrè digestre: Avtore Anton. Mizaldo Moniveiano, Medico. Lecteri.

Omne tulit punctum qui miscuit vtile dulci :

Arina res: tamen hæc mixta dat iste Liber.

Lytetize, Apud Federicum Morellum Typographum Regium, via Incohen, ad insigne Fontis. M.D. LXXXIIII. Ex Privilegio Regis.

It may be noticed that in this edition the couplet on the title-page has been altered to suit the tenor of the book.

Besides the editions above mentioned there were two printed at Cologne in 1572 and 1573. These are of such excessive rarity that the edition of 1572 is mentioned only by one or two writers, and its very existence has been doubted, while the 1573 edition has, up till now, been absolutely unknown and undescribed. Of the 1572 edition, the only copies I know of in this country are in the Hamilton and Hunterian Libraries, in the University of Glasgow; of the 1573 edition, the only copy is in the British Museum (1169. a. 4).

The following is an account of these books:

Antonii Mizaldi Monluciani Galli, Medici, Memorabilivm, Sive Arcanorvm Omnis Generis, Per Aphorismos Digestorum, Centurize IX. Et, Democritvs Abderita, De rebus Naturalibus & Mysticis. Cum Synesii, et Pelagii Commentarijs. Interprete de Græca lingua, Dominico Pizimentio Vibonensi, Italo. Przefatio, In omnes hosce libros.

Coloniae, Apud Ioannem Birckmannum Anno D.M. LXXII, Cum Gratia & Priuilegio Casar. Maiestat.

This is a 24°, and contains in all 52 leaves not numbered, followed by 2 blank leaves; 245 leaves, numbered, and 1 blank. The 1573 edition has the same title; it has 45 preliminary leaves, and 245 leaves numbered.

The special interest of these editions lies in their being possibly the first in which the Latin translations of the chemical writings of Democritus and Synesius, and some other Greek authors, made their appearance. As I have already communicated to the Philosophical Society what I had to say on this subject, a reference to my paper there will now suffice.

In drawing up these collections, Mizauld laid under contribution ancient and modern writers alike, and extracted from them all the marvellous stories they contained, without troubling very much about their probability, or attempting to apply any criticism whatsoever. In the preface of the 1572 edition, mention is made of the best known writers on secrets, among whom are Albertus Magnus, Baptista Porta, Alexis and Levinus Lemnius. Mizauld relied also on Pliny, Nicander, Dioscorides, Galen, Ælian, and many others, as well as on private persons, whose names he does not give, but who confided to him the results of their experience. The use of oil of tartar, for example, for cleaning rusty iron, and for removing pimples from the face (the two things evidently being considered as coming under the same category), is given on the authority of a lady, fucorum magistra. The contents of this book are certainly worth noting, and one can only say that if certain of the secrets are true they surpass belief, and if they are not, Mizauld's belief must have surpassed credulity. At the same time, the collection, however unsuited for the present it be, is interesting, not to say valuable, as a record of many popular ideas on natural history and science, and as affording clues to the origin of popular beliefs, old-fashioned cures, and proverbial sayings.

I come next to some English works, which made their appearance in the latter half of the sixteenth century. The first of these is the compilation

² Read Nov. 19, 1884. Proceedings, vol. XVI. p. 36 and p. 287. I avail myself however of this opportunity to make a correction. In § 4 (2) Dufresnoy is referred to as having quoted only the Cologne, 1574, edition of Mizauld's book, with Democritus. He does so, under Democritus and under Synesius. But under Misaldus (Histoire de la Philosophie Hermetique, Paris, 1742, T. III. p. 237) I find that he does mention the Cologne edition of 1572, though without saying that it too contains Pizimenti's translation of Democritus and Synesius.

called *The Englishman's Treasure*. It was printed as early as 1596, and repeatedly afterwards. The copy I have is of the seventh edition, and it is dated 1696, but this does not agree with the British and Hunterian Museum copies, both of which are dated 1626. This work has a detailed title, of which the following are the leading items:

The Englishman's Treasvre. With the true Anatomie of Mans Body: Compiled by . . . Mr. Thomas Vicary Esquire, . . . Chyrurgion to King Henry the 8. . . . Whereunto are annexed many secrets appertaining to Chyrurgerie with diners . . . Remedies for all Captaynes and Souldiers, . . . with Emplaisters . . . with other Potions and Drinkes . . . Also the rare Treasure of the English Bathes: Written by William Turner. . . . Gathered and set forth . . . by William Bremer. . . . And now seuenthly augmented . . . with almost a thousand approued Waters and Medicines . . . as also Oyntments and Plaisters; . . . by G. E. . . . With a necessary Table, for the ready finding out of any secret therein contayned.

Printed at London by B. Alsop, and Tho. Favvcet . . . 1696. (1626).

It is a small black letter quarto, and the copy I have has been much used; has, indeed, been misused. This is a collection of medical secrets, and is the predecessor of several books on the same subject to be mentioned hereafter.

The volume which follows is the earliest of a series upon natural history, the contents of which are entertaining:

- T Certaine Secrete wonders of Nature, containing a descriptio of sundry strange things, seming monstrous in our eyes and sudgement, bicause we are not prime to the reasons of them. Gathered out of divers learned authors as well Greeke as Latine, sacred as prophane. By E. Fenton. Apres fortune espoir. T Seene and allowed according to the order appointed.
- ¶ Imprinted at London, by Henry Bynneman dwelling in Knight-rider streat, at the signe of the Mermaid. Anno. 1569.

Cvm Privilegio Ad Imprimendvm Solvm.

This is a small 4°, printed in black letter, with large woodcuts of the marvels and monsters described in the text. Among these we find mention of the death of Pliny by the eruption of Vesuvius. In the accompanying illustration, Pliny, in the costume of a doctor of the sixteenth century, is

¹ This tract was printed by itself in 1577, and probably earlier. Watt (Bibl. Brit. 933 y), quotes an edition of 1548, but he seems to confuse the True Anatomic with the various editions of the Englishman's Treasure.

standing as if he were giving an experimental lecture on cataclysmal geology, and does not seem in the least put about by the flames that are bursting not only from the rocks but from his left shoulder, the cloak wrapt round his right leg and other important parts of his attire. Curtius, we are told, leapt into the gulf "by a deceit of Sathan," a reading of Roman legend somewhat anachronous, and not complimentary to Curtius, who would thus seem to have been doubly taken in.

The book opens with "Sundry Abvses and wonders of Sathan," with a portrait of his swarthy majesty as he is worshipped at Calycut, "one of the "most riche and famous cities of the Indyans." Almost as fearsome was the creature born at Cracow, 1543,

"who although he were begotten of honorable parents, yet was he most horrible, deformed "and fearefull, having his eyes of the colour of fire, his mouth and nose like to the snoute of "an Oxe, wyth an horne annexed thereunto like the trumpe of an Elephant, all hys backe "shagge hairde like a dogge, and in place where other men be accustomed to have brests, "he had two heads of an Ape, having above his nauell marked the eies of a cat, and ioyned to his knee and armes foure heades of a dog, with a grenning and fierce countenance: the "palmes of his feet and handes were like to those of an ape: and amongst the rest, he had "a taile turning vp so hie, that the height thereof was half an elle: who after he had lived "foure houres died, saying only: 'Watch, the Lorde commeth.'"

This most delicate monster made a sensation at the time, and is referred to by a number of writers.

And then Fenton proceeds to discuss the very difficult problem of incubi and succubi, and whether devils can have children, and on general principles decides in the negative, therein differing from certain experts, who, like Delrio,² have made the physiology, and manners and customs, and domestic habits of devils their peculiar study.

Among the wonderful things of the ocean the poor seal is exaggerated into a terrible monster.

¹ Cardan, De Subtilitate, Lugd., 1554, p. 474; Cornelius Gemma, De Nature Divinis Characterismis, Antverp., 1575, I. p. 96, who gives a rather poor picture of the prophet; Peucerus, Commentarius De Pracipuis Divinationum Generibus, Francol., 1607, p. 728; Welfius, Lectiones, 1600, II. p. 510, with a portrait. Curiously enough, these writers do not agree as to the birthplace of the monster, and they differ also in some details of his construction.

² Disquitiones Magica, Lib. II. Quæst. xv., contains a discussion on the subject.

There is a portrait (f. 82) of one Denis Heracleot, who became so fat with eating and drinking and no exercise, that he had horse leeches constantly engaged draining off the superfluous humours. There is a vivid presentation of the wriggling leeches all busy at work.

The author has gotten together a choice selection of monsters, pictures of which are given. The horse with "all his skinne checquered and deuided into great panes, after the order of the Dutchemens hose," again appears; animals and human beings with a superfluity or deficiency or mal-arrangement of legs, trunks, arms, &c., are not wanting; and there is a gruesome picture of one of which this description is given:

"There is founde by sufficient authoritie in writing, that in the yere. 1496. was taken wp out "of the river of Tyber, a monster, having the tronke of the body of a man, the head of an "Asse, one hand and arme like to a man, and the other of the fashion of an Elephantes foote: "he had also (according to the portraict you see) one of his feete like the foote of an Eagle, and "the other like the hoofe of an Oxe, his belly like a woman with two duggs, and the rest of "his body with skales: he had also growing out behynde him, a head olde and hairie, out of "the which came an other head of the forme of a Dragon."

This fellow is mentioned also by Peucer, and an inaccurate portrait is given by Gemma.

Of this very rare book I know only of the copy in the British Museum (1251. e), and it is imperfect. It is much to be regretted that there is no reprint of this and other books of the same kind, and that while there have been and are societies for reprinting and preserving anything in verse, however trivial, there never has been one for rescuing from absolute destruction the knowledge and notions about natural things current long ago. Fenton's book would certainly stand reprinting. It is full of choice absurdity, and some of the stories, which will hardly transcribe, exhibit the compiler's credulity and simplicity. He had an unwavering belief in devils and spirits, and the warfare they carried on against humanity. And yet there were more credulous people even than himself; for he tells, not without satisfaction and an air of superior knowledge, the story of Augustinus Lavisarius, "Secretary of a certaine Prince, the which by reason of his ignoraunce in the cause of his Eccho, was in daunger to be drowned;" for the said secretary on a journey, riding out of his way, was benighted, and coming to a river bemoaned himself,

¹ Trans. Archaol. Soc. Glasgow, 1883, vol. II. p. 193.

and was answered from the other side. Whereupon he began to converse with this voice, and was persuaded to enter the river, which he, at last, got through with great pains by his horse swimming. He told Cardan of his adventure, "in sorte as if it had bene the malice of an euill sprite that wente aboute to drowne him; & telling the place & every circumstance in order, Cardanus smelled forthwith the ignorance and simplicity of the Secretary, knowing that in that place was a wonderfull Eccho." Cardan took the secretary to the place and gave him a demonstration, or experimental proof of the same. Let us hope that the secretary was a wiser man for his lesson, and let us also lay to heart that even in the days of Cardan and Fenton there were degrees of ignorance of natural things.

The ladies of these lands were wont to pride themselves upon their huswifery, their management, their dexterity in all the practice of cooking and preserving. In the earlier times, unless the good wives attended to these matters, no one else could. There was no "machinery in motion" for making marmalade or jam by the ton, in 1585, but there was rivalry among the ladies, and they had receipts and secrets which they would not reveal, although they were very willing to be praised for the results.

Numerous volumes of these secrets—which are somewhat different from cookery-books—were published under various names.

There was a work of this kind compiled by John Partridge:

The treasurie of commodious Conceites, and hidden Secrets. Commonly called,
The good Huswiues Closet of provision, for the health of her houshold.
Meete and necessarie for the profitable vie of all estates. Gathered out of fundry Experiments lately practised by men of great knowledge: And now the fourth tyme corrected, and inlarged, with divers necessary and new additions.

At London, Printed by Richarde Ihones: dwelling at the figne of the Rose and Crowne, neere Holburne Bridge. 1584.

It is a small 8vo, signatures, A-E, F 4 (=ff. 44); printed in black letter, except the dedication, the table, titles to the sections, &c., which are in roman. There is a copy in the British Museum (1038. f. 42.)

There was a very nice reprint of it in 1586, at London, by Henry Car; sigs. A-E, F4 (British Museum, C 31. a. 15). Other earlier editions appeared in 1573, 1580, but these I have not seen.

This little tract contains some cookery receipts, among others how to make marchpanes, green ginger, ipocras, conserves of all kinds, sweet powders, fumigations, medical receipts for domestic purposes, waters, solvents for grease and other spots in silk, velvet, cloth, "a soueraigne remedy for the cough," and a few other curious things.

A later edition is the following (British Museum, 1037. e. 2):

The Treasurie of hidden Secrets. Commonlie called, The Good-huswines Closet of prouision, for the health of her Houshold. Gathered out of fundry experiments, lately practifed by men of great knowledge: And now newly enlarged, with diners necessary Phisicke helpes, and knowledge of the names and naturall disposition of diseases, that most commonly happen to men and vvomen. Not impertinent for every good Huswise to vie in her house, amongst her owne familie.

At London, Printed by I. R. for Edward White, and are to be fold at his shop at the little North doore of Paules, at the signe of the Gunne. 1600.

Small 4to. Sigs. A-I (=ff 36). Black letter, but title and address in roman. The initials I. R. stand for I. Roberts; but at the end of the preface they are put R. I., i.e., Richard Ihones, as in the earlier edition. According to the address or preface, this is a combined edition of Partridge's Treasurie and a small cookery book printed by Ihones, newly arranged, and the superfluous matter omitted. It is larger, but not nearly so well printed as the earlier editions.

Another work similar to Fenton's, but not so large and racy, is the following:

The Secrets and wonders of the worlde. A Booke Ryght rare and straunge, contayning many excellent properties, giuen to Man, Beastes, Foules, Fishes, and Serpents, Trees and Plants. Tabstracted out of that excellent natural Historiographer Plinic. Translated out of French into English.

At London Printed for T. Hacket, & are to be fold at his shop in Lumberd streete, under the Popes head. 1587.

This is a small black letter 4to, with the title enclosed in an ornamental scroll border. A copy is in the British Museum (7004. aa).

T. Hacket addresses the book to his friend, Rycharde Candler, and calls it "thys Abstract of Plinie," and in the note to the reader it is said to be "abstracted out of the syxteene fyrst bookes of that excellent naturall Historiographer Plinie."

The first section contains an abstract of the first six books, called Secrets and Wonders of the World, then the following ten books have each a section: Book 7th, of Man; 8th, Beastes on the Earth; 9th, Water Beastes and Fishes; 10th, Foules of the Ayre; 11th, Little Beastes; 12th, Sweet smelling Trees; 13th, Straunge Trees; 14th, Trees and Fruitfull Plants; 15th, Trees bearing Fruite; and 16th, Wylde Trees.

It gives a very brief view of Pliny's notions, some of which are correct enough, others wild to a degree. It must not be forgotten, however, that from Pliny came much of the wonderful natural history recorded by Fenton and others, prior to the modern period of exact observation. So that it is in their books that one learns the earlier ideas current about the physical and natural sciences.

The craving, however, for knowledge of Nature's secrets was not satiated by the preceding, for others were put forward to meet the demand. One of these was the following:

Cornvcopiæ, Or diuers secrets: Wherein is contained the rare secrets in Man, Beasts, Foules, Fishes, Trees, Plantes, Stones and such like, most pleasant and profitable, and not before committed to bee printed in English. Newlie drawen out of diuers Latine Authors into English by Thomas Iohnson.

At London. Printed for William Barley, and are to be fold at his shop at the vpper end of Gratious streete nere Leaden-Hall. 1595.

Small 4to. Black letter. Signatures A—F, or 24 leaves in all, whereof A1 is blank. There is a copy in the British Museum (546. g. 12).

To Thomas Iohnson's perusal of the Latin authors we are indebted for the knowledge of some very important secrets. Some may be quoted:

There is a little fish called Echines, which cleaning to the keele or mast of the Shipe, will so retaine the shippe that no violence of winde or weather can remove it.

The Satyres have heads like vnto men, and bodies like vnto goats, and are capable of reason and speech, which is both strange and wonderfull.

The Loadstone hath vertue to draw yron to it: yet if you holde a Diamond by him, that vertue will be taken away so long as the adamant is by him.

If anythinge be laid in salt and there left remayning, in process of time it becommeth salt itselfe.

The weasell and the mouse are at deadlie hate, so that if you put the braine of a weasel into your rennet or cheeslepe wherewith you gather the curde of cheese, the mise will never taste or eate the cheeses. [Plainly there would be no use in baiting a mouse-trap with such beweaselled cheese.]

The lobster so feareth the fish polipus, that at his sight he dieth incontinent.

The elephant thoughe neuer so outrage, yet seeing a ramme is eftsones tamed.

A bull though neuer so fierce, becommeth quicklie verie gentle beeing tyed vnto a figge tree. [Quite effective, doubtless, if one can get a fig-tree, and tie the bull to it.]

When the Oister gapeth for aire against the tide, the Crabbe putteth a stone betweene the two shelles to keepe them open while he eateth the meate.

The Eele commeth or is engendred of the earth and mud without anie spawne, neither is there either male or female of them. [Spontaneous generation.]

In Aethiope by a towne called Debris is a well of a strange property, for the water in the day time is cold as yee, and in the night it is boyling hote.

Italie hatcheth stately mindes, Fraunce excesse of pride, England conetousnesse, Scotland craftinesse, Ireland lasinesse [poor Ireland I], Flaunders drunkennesse.

These are only a few of the wonders this book contains. Again one must regret that there is no Society for reprinting such very scarce books on the secrets of nature. One may feel inclined to scorn the author, but he has something to say for himself at the very beginning of his tract:

Manie are the woonders & mermailes (sic) in this world, and almost incredible, were it not that experience teacheth the contrarie: for who could bee perswaded to beleeve that the Owstridge could eate or devoure cold & hard Iron, or that hote burning Iron could not hurt her stomacke, were it not that it hath and is daylie seene and knowne.

To experience, therefore, Johnson appeals, and the modern naturalist and physicist do the same. If there is a discrepancy in the results, it rests with the historian of science to ascertain whence it arises. The question also suggests itself if there will be as much difference between the natural history of to-day and the results of experience three hundred years hence, as there obviously is between the works of Fenton and Thomas Johnson and, say, the reports of the Challenger Expedition?

A collection of a different kind, by Thomas Lupton, who was known besides as a religious and dramatic writer, also appeared in the sixteenth century; but

¹ This is

"The fount that play'd
In times of old through Ammon's shade,
Though icy cold by day it ran,
Yet still, like souls of mirth, began
To burn when night was near."

the oldest copy I have seen is dated 1601. It is in the British Museum, and has this most discriminative title:

- A Thousand Notable things of sundrie sorts. Whereof some are wonderfull, some strange, some pleasant, diuers necessary, a great sort profitable, and many verie precious. Newly corrected. [6 Complets beginning: This Books betwraies that some had rather hide, &c.]
- At London, Printed by I. Roberts for Edward White, and are to be solde at the little North doore of Paules, at the signe of the Gunne. 1601.

In this edition there are only ten books. It is a terrible jumble, taken from Evonymus—the New Jewel of Health, which the author calls "a book of much value and small price," qualities just reversed at the present time—Wecker, Mizaldus, Albertus, Levinus Lemnius, and many others, with no sort of order or principle of arrangement, for which, however, the author apologises. There are medical, technical, natural history, and other secrets, stories from the ancients, all sorts of queer receipts, the objects to be gained by them not being always obvious. Extracts could give little or no notion of the thousand paragraphs the book contains. One singular feature, copied from some of the older books, is a sort of certificate in the form of the word proved, attached to many of the receipts. Even with this guarantee one feels doubtful about the success of some of the receipts.

There was a demand for this collection however, for it appeared again and again during the following centuries. In the Museum Catalogue are copies with the dates 1627, 1631, 1660, 1675, 1686. Then there is a long blank, for the remaining copies are dated 1793 and 1815. Besides these there are other three which I can show. The title of the earliest of them is very lengthy, containing as it does, an abstract of the contents. It was printed at London, for G. Conyers, and, like other books by Conyers, has no date. There is a preface nominally by Lupton, who supposes that this is the twentieth impression. It is more probable, however, that this preface has been copied from some earlier edition, and does not refer to this one at all.

The title of the next edition is as follows:

A Thousand Notable Things, on Various Subjects. Disclosed from the Secrets of Nature and Art, Practicable, Profitable, and of great Advantage, Set down

from long and curious study and experience for the greater part; and the rest taken from the most judicious and celebrated authors of the Antients and Moderns. Being a rich Cabinet of select Curiosities and Rarities, in one volume, digested into fourteen books, for the general use, and good of Mankind, with strict amendments and large additions, to what formerly has been published in this kind, exceeding any other for the multitude of pleasing variety hereia to be found.

London: Printed for J. Wilkie. No. 71. St. Paul's Church-Yard; and E. Easton, at Salisbury. 1776. [Price, sew'd, 1s. 6d.]

The copy from which the above is taken, is as clean as when it left Wilkie's shop. It is "sew'd" in blue paper covers, and it is not only uncut, but except for a couple of sheets at the beginning, it is unopened. The temptations of the title-page have been thrown away on the previous owner.

The third copy has the same title, but it was "printed for T. French, & W. Millar. MDCCXCV." This edition is in every way inferior, the paper and printing being very poor.

In these later editions, four books have been added to the original ten. When this increase was made I do not know, but some of it is comparatively modern.

Out of curiosity I examined the edition printed in 1815 (British Museum, 1036. c. 8), which is in 12mo.

The following is the title:

A Thousand Notable Things, on various Subjects; disclosed from the Secrets of Nature and Art; Practicable, Profitable, and of Great Advantage; Set down from long and curious Study and Experience, for the greater Part; and the rest taken from the most judicious and celebrated Authors of the Ancients and Moderns. Being a rich Cabinet of select Curiosities and Rarities, in one Volume, digested into Fourteen Books, for the general Use and Good of Mankind; with strict Amendments, and large Additions, to what formerly has been published in this Kind; exceeding any other for the Multitude of pleasing variety herein to be found. To which is prefixed, The Century of Inventions, by the Marquis of Worcester, 1655 (sic); Also, A Discourse on the Emigration of British Birds.

London: Printed for Walker, Edwards, and Reynolds, Paternoster Row. 1815.

This is hardly an exact reprint. The first ten books are taken from Lupton, but with some omissions and alterations. The wonderful thing is that Lupton's book, in any shape or form at all, should have been re-issued within the last 70 years. At that time there must have been people who

credited the marvels Lupton had collected. These marvels were pardonable in 1601, for Lupton thought he was doing good service in gathering them into a place where they might be accessible to all—but in 1815! Still more wonderful is it that Lupton's book was reprinted by Griffin & Co., publishers of modern scientific works, at Glasgow, in 1827. It is amazing to think that what passed current for science in the sixteenth century was reproduced unchanged for the edification of the generation immediately preceding the present; that the notions of Albertus Magnus, and Alexis, and Mizaldus, and Fenton, and Johnson and all the rest-"Proved"-found acceptance with a public, evidently incapable of understanding the progress of natural and physical and applied science due to the lapse of 250 years, and to the labours of Newton, and Linnæus, and Buffon, and Priestley, and Lavoisier and Davy, and a multitude of others. To such persistent vitality of error, and there are other instances, which will be mentioned below, what can one say? Only that the thousand and first notable thing is the survival of Lupton's book, and that its survival is so discreditable as to be instructive.

The Century of Inventions is reprinted both in the 1815 and 1827 editions.² The following collection is in Spanish, a language in which I have met with very few books on the subject of these notes, and the description is from the British Museum copy (7383. f):

Phisonomia y Varios Secretos De Natvraleza: Contiene cinco tratados de materias diferentes, todos reuistos y mejorados en esta tercera impression, a la qual se han añadido muchas cosas notables y de mucho prouecho. Compuesto por Hieronymo Cortes, natural de la Ciudad de Valencia. Con Licencia, En Tarragona, por Felippe Roberto, Año, 1609.

Small square 8vo, ff [4] 115, [1]. This is the third edition, and there followed others in 1612, 1644, 1675, 1681, 1750? and at Paris so recently as in 1850 and 1858, by Garnier Frères, in 16°. The last is enlarged by numerous other secrets. Its title is:

Fisonomia, y varios secretos de Naturaleza, por Gerónimo Cortes, Natural de la Ciudad de Valencia.

Paris, Libreria de Garnier Hermanos, . . . 1858.

16°, pp. 320. All after p. 259 is wanting in the 1609 edition.

^{*} See Dircks' Life of the Marquis of Worcester, London, 1865, p. 375.

These two titles and the other dates are from the British Museum copies and catalogues respectively. I have here besides the 1612 edition. It is a poor little volume, printed on miserable paper, at no less renowned a place than Alcala. The title is practically the same as that of the edition of 1609, but in the present copy there are only four out of the five tracts specified in the title. When complete it contains ff. 132.

Among the authorities to whom Cortes is indebted are Scotus, Arnaldus, Pliny, Herrera, Mizauld, Cardan, Albertus, Porta, "y Don Alexios Piamontes," so that we know pretty well what we have to look for. The same old nonsense which was excusable in 1609 and 1612, but who could possibly want it in 1858? This is another instance parallel to Lupton's, only the reprints are of a still more recent date. The survival of such collections cannot be due to accident; there must be a number of persons at the present time who purchase these books. It is astonishing, however, that such should be the case, and that books like these should survive quite unchanged for hundreds of years and come out in the most modern dress, with all the authority that modernness bestows. Any one examining the 1858 edition would judge it to be a new book, not a reprint of one which had appeared 250 years before.

A certain Scipion Dupleix was born in 1569, went to Paris, became historiographer of France, and published a history in 1621-43. He wrote several works and, in particular, that which concerns us at the present moment: La Curiosité Naturelle. The edition of this, which I have seen, was printed at Rouen in 1638, along with other two treatises by him, but there must have been an earlier one, for the English translation—which by the way is much abridged—was printed three years earlier, in 24°:

The Resoluer; or Curiosities of Nature. Written in French by Scipio Du Plesis . . London Printed by N. & I. Okes . . . MDCXXXV.

This title page is engraved by W. Marshall, and has Plato and Aristotle right and left; an astrologer, with Time and Death, at the top; and at the

¹ Niceron, *Mémoires*, XLIII. p. 107, quotes a Lyons edition of 1620. He calls it a "dangerous work." Some modern booksellers would call it "facetious." Niceron would perhaps have been satisfied with the bowdlerising of the English version.

bottom, Jason, and an alchemist in the last stage of destitution and frustrated hope.

The topics are arranged alphabetically, and are discussed in the form of question and answer, the replies being worthy of the conundrums. One sample of the wisdom of Scipion Dupleix will be quite enough (p. 164):

- O .- Wherefore is it that little children have their noses turned up?
- A.—It is as saith Aristotle, that they have their blood boyling; and the heate hindereth the superfluous matter to extend it selfe: now the nose is a cartilage, and a cartilage is a kind of bone, and a bone is a superfluous and insensible matter.

Throughout the 269 closely printed pages of the French original, the majority of the questions are as profound, and the answers as conclusively explanatory as the preceding. Scipion was "counseller and historiographer to the French King." On what subject could Scipion's counsel have advantaged his Majesty?

The same year there was published a treatise by a Scotchman, the like of which, if we are to believe the gratulatory verses prefixed, had never been seen before. Of David Person, the author, I have not been able to find any notice; but he must have been well known, for among those who commend his cyclopædia are Drummond of Hawthornden and Arthur Jonston, and the copy I have was the author's gift to Robert Gordon of Gordonstoun. The treatise is divided into five parts, or books. The first is a discourse of the secrets of nature in heaven, air, sea and earth; the second treats of meteors, comets, falling stars, wind, thunder, hail, snow, earthquakes; the third of armies, duels, death, laughing and mourning, and mental reservation; the fourth contains curiosities, divine philosophy, agreement of the ancient philosophers with Christian professors, sleep and dreams; while the last deals with the numbers three and seven, miracles and prodigies, the philosopher's stone, the world, and metaphysicks; in some of which collocations humour might be suspected to lurk, had not the author been a Scotchman. The title is an appropriate one:

Varieties: Or, a Svrveigh of Rare and Excellent matters, necessary and delectable for all sorts of persons. Wherein the principall Heads of diverse Sciences are illustrated, rare secrets of Naturall things unfoulded, &c. Digested into five Bookes, whose severall Chapters with their Contents are to be seene in the

Table after the Epistle Dedicatory. By David Person, of Loghlands in Scotland, Gentleman.

Et que non prosunt singula, juncta juvant.

London, Printed by Richard Badger, for Thomas Alchorn, and are to be sold at his shop, in Pauls Church-yard, at the signe of the green-Dragon. 1635.

It is almost the only collection of secrets by a Scotchman that I have encountered.

Medical receipts and secrets have always been in request, and a good many collections of them appeared in the seventeenth century. Here is one:

A Choice Manual, or Rare Secrets in Physick and Chirurgery: Collected, & practised by the Right Honorable the Counters of Kent, late deceased. Whereto are added several Experiments of the Vertue of Gascons powder, and Lapis contra Yarvam by a Professor of Physick. As also most exquisite ways of Preserving, Conserving, Candying, &c. The Nineteenth Edition.

London, Printed for H. Mortlock at the Phoenix in St. Pauls Churchyard. 1667.

This is in two parts, the first containing the medical secrets, and the second—which has separate pagination and on its title page is called a True Gentle-womans Delight—containing the receipts for cookery and preserving. Prefixed there is a lugubrious portrait of Elizabeth, late Countess of Kent. I have failed to ascertain when this collection was first published. The earliest editions mentioned are dated 1653, 1656, the twelfth in 1659, all with portraits. Elizabeth, second daughter of Gilbert Talbot, Earl of Shrewsbury, and wife of Henry de Gray, Earl of Kent, died at her house in White Friars, December 7, 1651. Little or nothing is said about her, except that her claims to authorship were the least of her merits; but negative praise, after all.

Another is in the British Museum [E 1302 (1)]:

Physical Rarities, containing the most choice Receipts of Physick, And Chyrurgerie,

For the Cure of all Difeases incident to Mans Body. Being a rich Jewell,
kept in the Cabinet of a famous Doctor in this Nation; stored with admirable
Secrets and approved Medicines. Published by Ralph Williams, Practitioner
in Physick and Chyrurgerie.

London, Printed for J. M. and are to be fold by George Calvert, at the half Moon in Watling-ftreet neer S.-Austins Gate. 1651.

¹ Walpole's Royal and Noble Authors, by Park, London, 1806, Vol. III. p. 44. J. Granger, A Biographical History of England, 5th Edition, London, 1824, Vol. III p. 209, gives a list of the portraits of the Countess of Kent.

Of these medical receipts, for the cure of the heritage of the flesh, some are plausible and possibly ameliorative, others are impossible and absurd, some are disgusting, and some, I suppose, are absolutely negative.

Still another, specially intended this time for the ladies, appeared at London in 1656, entitled: Queen Elisabeths Closset of Physical Secrets... Collected by the elaborate paines of four famons (sic) Physitians, and presented to Queen Elisabeths own hands. It was a curious dish to set before a queen, who—except as mother of her people—had no personal interest in the subject. Prefixed is a portrait of her majesty, by Elstrak, and there is a verse below it which shows what a matter-of-fact man the publisher must have been.

Thomas Willsford pursued a different line of investigation, as is seen by the following:—

Natures Secrets. Or, The Admirable and wonderfull History of the generation of Meteors. Particularly describing, the temperatures and qualities of the Four Elements, the Heights, Magnitudes, and Influences of the fixt and wandring Stars: the efficient and finall causes of Comets, Earthquakes, Deluges, Epidemicall Diseases, and Prodigies of precedent times; Registred by the Students of Nature. Their Conjecturall presages of the Weather, from the Planets mutuall Aspects, and Sublunary bodies: with the proportions and observations on the Weather-glass, with Philosophicall paraphrases rendred explicitely, usefull at Sea and Land. By the industry and observations of Thomas Willsford, Gent.

Venite & videte opera Domini, que posuit prodigia super terram, Psal. 45. v. 8. London, Printed for Nath. Brook at the Angel in Cornhill. 1658.

Prefixed is a portrait of the author, by R. Vaughan, and appended is a catalogue of books sold by N. Brook. The portrait is usually wanting, being removed by "Grangerites," whose self-contradictory business it is to illustrate some books by despoiling others. This treatise is almost entirely devoted to astronomical calculations and to weather predictions from the conjunctions of the planets; but the title itself gives as complete an account of the book as is required here. I presume that it is one of the earliest treatises on meteorology, but it is unknown. Watt mentions a treatise on arithmetic, by Willsford, but not "Natures Secrets." Lowndes has not his name at all.

In 1661, at Oxford, the abode of sweetness and light, a certain Robert Lovel perpetrated a *Panzooryktologia*, a discourse on all animals and minerals,

He, too, seems to have laid out a course of reading of the old naturalists and secret-mongers, and to have put down systematically for his book what he found in them. He has not styled his gatherings secrets, but they are so, with a vengeance. His credulity is great, greater by 150 years than that of He repeats quite gravely that caterpillars are formed from dew congealed upon cabbage leaves by the sun, and that fleas are generated from dust and in dog's hair from sweat. It is Lepidus who says: "Your serpent of "Egypt is bred now of your mud by the operation of your sun, so is your "crocodile;" a height of great argument which your evolutionist has not yet reached. Lepidus, it is true, had been dining, but Lovel was evidently in sober earnest when he made the above statements. And vet in Lovel's time Boyle was living at Oxford, the Royal Society was collecting May-dewperhaps for congealing into caterpillars—physical science, chemistry, and pharmacy were progressing, and important discoveries were making. Lovel, I suppose, wrote for such as prefer the marvellous, sensational, and mysterious, to the brightest light of their time; for the kind of people who in 1827 consulted Lupton, or in 1858 studied the nature of man in Cortes' Phisonomia. It is so yet, for along with a gyratory kind of advance in medicine, the student of the ways and beliefs of the uneducated tells us of the survival of an old occult medicine still to be found in operation, and there is a market even now for the secrets of Albertus Magnus and Albertus Parvus. Five years later Lovel produced his Panbotanologia. This I have not seen, which I regret, for if it be on the same scale as the preceding, it must be a remarkable collection.

T. K., a Doctor of Physick, published at London in 1680 a small treatise entitled:

The Kitchin-Physician: or, a Guide for Good-Housewives in Maintaining their Families in health. Wherein are described the Natures, Causes, and Symptoms of all Diseases inward and outward, . . . Prescribing natural, useful, and proper Medicines both in Physick and Chirurgery, . . . Adorned with Sculptures, shewing the proper place of every Distemper in the Body.

This was a sort of forerunner of Buchan, but not nearly so large. The drugs are mostly of vegetable origin, but there are a few, fortunately long ago

² See Johnson's Cornucopia, 1595, above, for the spontaneous generation of eels from mud.

expunged from the pharmacopæia, which show what funny notions our forefathers had of the virtues of some substances.

In 1683 appeared another:

The Queens Closet opened. Incomparable Secrets in Physick, Chyrurgery, Preserving and Candying, &c. Which were presented to the Queen: By the most experienced Persons of the Times, many whereof were had in Esteem when she pleased to descend to private Recreations. Corrected and Revived, with many new and large Additions: together with three exact Tables. Vivit post Funera Virtus.

London, Printed for Obadiah Blagrave, at the Sign of the Black Bear in St. Pauls Church-yard. 1683.

[Prefixed is a portrait of "Heneretta Maria Late Queen of England."]

This work is in three parts: the first, called "The Pearl of Practice," contains medical and surgical receipts; the second, "A Queen's Delight," deals with preserving, candying, and so forth; the third is entitled "The Compleat Cook." Each part has separate title, pagination, and index. There were several editions; 1655, 1671, 1679, and 1710 are mentioned by Lowndes; the above, which is omitted by him, is the only one that has come under my own observation.

The next is a medical collection, not mentioned by either Watt or Lowndes, and not included in any list of the author's works which I have consulted.

The Secrets of the Famous Lazarus Riverius, Councellor & Physician to the French King, And Professor of Physick In the University of Montpelier. Newly Translated from the Latin, by E. P. M. D.

London, Printed for Daniel Brown, at the Black Swan and Bible without_Temple-Barr. MDCLXXXV.

This is an interesting book. It gives the chemical preparation of a large number of compounds and their medicinal virtues and uses. Here one sees the laborious methods resorted to to prepare substances which could now be got in far shorter time, with far less trouble, and with far better result. The difference is simply due to the older process being hap-hazard, and to the modern being the outcome of rational theory, based on experimental data.

A work compiled "not only for Delight, but for the Accomplishment of the Female Sex," was published by a certain John Shirley, in 1687, under the seductive and socialistic title of *The Accomplished Ladies Rich Closet of Rarities: or the Ingenious Gentlewoman and Servant-Maids Delightfull*

Companion. This, though small, is a comprehensive collection, as it includes distilling, wine-making, preserving, carving, cosmetics, medical and surgical receipts for females; taking out spots and stains, washing, scouring gold and silver lace; cooking and baking; bills of fare, dairy-maid's directions; and many other useful pieces of information, and finally, a second part relating to the deportment of a young gentlewoman.

Such a book was doubtless of very great assistance to the young gentlewoman of two hundred years ago, if she read it. The ladies of that time were obviously not only expected to be skilled in many practical duties which they would be surprised at having to undertake now, but they evidently took much pride in their skill. Every house was obliged to be self-furnishing. There was far less subdivision of labour; as has been before observed, there was no wholesale manufacture of all sorts of foods and preserves; and every house was apparently expected to cure most of its own ailments. Medicine was traditional and purely empirical; its secrets were personal to the practitioner—not as now, based on sciences the secrets of which can be learned only by hard study and years of labour. Household curing seems to have been chiefly in the hands of the ladies, and these books show that there were hardly any diseases they might not be called on to deal with. In the successful results of their treatment they unquestionably had often direct interest; but one can imagine even the qualified female practitioner of the year 1885 undertaking some of the cases with reluctance.

Another series was published in Italian:

Breve Compendio di Maravigliosi Secreti Approuati con felice successo nelle Indispositioni Corporali. Diviso in Ovattro Libri.

Nel Primo. Si tratta di Secreti Medicinali.

Nel Secondo. Di Secreti appartenenti a diuerse cose.

Nel Terzo. Di Secreti Chimici di varie Sorti.

Nel Quarto. D'Astrologia Medicinale.

Con vn Trattato per conseruarsi in sanità. Dato in luce dal Signor Fr. Domenico Avda Capo Speciale nell' Archiospedale di S. Spirito in Roma. Con nuoua Aggionta dell' istesso Auttore.

In Venetia, M.DC.XCII.

Appresso li Prodotti. Con Licenza de' Superiori.

This is a miscellaneous collection, as the title itself shows, and it has no pictures. It was translated into French and appeared in the following garb:

Les Admirables Secrets de la Medecine Chimique Du Sr. Joseph Quinti, Docteur Venitien. Qu'il a receuillis avec beaucoup de soin & de travail: lesquels ont été plus d'une fois experimentez par lui-même en plusieurs infirmitez, & maladies dangereuses. Traduction Nouvelle de l'Italien, enrichie de figures.

A Venise, Et se vend A Liege, Chez J. F. Broncart. M.DCCXI.

I do not know what relationship there may have been between Domenico Auda and Dr. Quinti; but if they were different, and Dr. Quinti was later than Signor Auda, then he, Dr. Quinti, has laid claim to the making of a collection "beaucoup de soin & de travail" to which he has certainly no right. The translator has not disclosed his name. The three pictures are copies of those in the secrets of Albertus Magnus, where they really do illustrate the text. In Quinti's books, however, they refer to nothing and are introduced for no obvious purpose, unless to persuade the unwary that they are getting the authentic secrets of Albertus once more.

The startling views of natural phenomena laid open in Johnson's Cornucopia, Willsford's Natures Secrets, Jonstonus' History and other works, were not confined to England, or Germany, or any country in particular, but seem to have formed the general scientific creed of Europe. They appear, at all events, in the following little known production:

Historia y Magia Natural, o Ciencia de Filosofia Ocvlta, Con Nvevas Noticias de los mas profundos mysterios, y secretos del Vniverso visible, en que se trata de animales, pezes, aves, plantas, flores, yervas, metales, piedras, aguas, semillas, Parayso, montes, y Valles. Por el Padre Hernando Castrillo de la Compañía de Jesvs, natural de Cadiz. Donde Trata de los Secretos que pertenecen à las partes de la tierra. Con Licencia.

En Madrid: Por Jvan Garcia Infanzon. Año 1692. Acosta de Francisco Sazedon, Mercader de libros: Vendese en su casa en la calle de Atocha junto à la Santissima Trinidad frente de la casa de los Fucares.

It is divided into six books. Book I. treats of natural magic, the science of secret philosophy, of the most hidden mysteries of nature. It is a sort of cosmogony, and discusses everything from the shape of the universe to the sympathy and antipathy of things. There is a good deal about different kinds of magic; about the history of it from Adam down to its introduction into Spain; how it passed to the East; whether the Magi, the three holy Kings, were adepts in natural magic, or perverts to the diabolical variety. Similar fruitful questions are debated with much learning, and opinions are quoted

from many forgotten authorities. Book II. is devoted to the elements, and to the world and the countries thereof. Book III. in 30 chapters, discusses the whereabouts of the terrestrial paradise, the animals in it, the events which occurred in it, the tree of life, and the probability that Methusaleh, St. John, Enoch and Elias are dwellers there and are sustained by the fruit of the said tree. Book IV. takes up mountains; Book V. plains, valleys, forests, plants; and Book VI. concludes with metals and minerals, and precious stones. This is another treatise which discloses what passed for natural history a couple of centuries ago.

Another medical receipt book:

Secrets et Remedes Éprouvez. Dont les préparations ont été faites au Louvre, de l'Ordre du Roy, Par deffunt M. l'Abbé Rousseau, cy-devant Capucin & Medecin de Sa Majesté. Avec plusieurs Experiences nouvelles de Physique & de Medecine.

A Paris, chez Jean Jombert. . . M.DC.XCVII.. . . .

This volume was edited by the author's brother, who has prefixed an introduction about him, and has described the origin of the Capucins of the Louvre. The Secrets are pharmaceutical and include the preparation of several substances from plants, animals, and minerals. The subject is dealt with from the chemical side, but there appears to be nothing that is not to be found in contemporary treatises on the science, in which there is no affectation of secrecy.

The general conflict of opinions which arose and prevailed last century is visible even in the books of receipts. On one hand, some really valuable technical works were compiled, while on the other, the books of secrets retained, and even emphasised their character for imbecility. This will be apparent in the following specimens of each class:

An almost unknown book was written by T. Snow, and published under the fanciful title:

¹ A fuller and less flattering account of Rousseau and of his relations to his assistant, Aignan,—a curious story altogether—will be found in De La Marre's Observations Critiques Sur un Livre du Sr Aignan, intitulé, L'Ancienne Medecine a la Mode, . . . Paris, 1702. 12°, pp. [2] 208 [3].

Apopiroscopy: or, a Compleat and Faithful History of Experiments and Observations:

Not only Chymical and Curious, but Mechanical; and in several Arts, Sciences and Professions. Being Pleasant, Useful and Profitable. Extracted from the most Authentick Writers, Manuscripts, and the Author's Experience. By T. Snow.

London, Printed for D. Brown, at the Black-Swan and Bible without Temple-Barr. 1702.

It is in four parts. The first deals with experiments mechanical, including all kinds of building materials, the staining, colouring, inlaying, carving and gilding of wood, varnishing and lacquering. The second part treats of experiments tericultural (Snow is fond of out-of-the-way words), which relate to plants, to sowing, manuring, grafting, and such like. The third contains experiments conservatical, concerned with the preservation of plants, animals, food, &c., and the fourth experiments ludicrous, "which tend more to pleasure than profit, tho' some of them are not altogether wanting in the latter, neither." Here the author tells us about secret writing, juggling tricks, and so forth.

This is by no means a stupid book. The author was a sensible man, and was fully alive to the practical character of the work he had undertaken. In the introduction, or *Prolegomenon*, as he calls it, he expresses himself both soundly and liberally as to the importance of experiment and the inherent and indissoluble dependence—as is more apparent now—of technical applications on scientific investigation. The list of fifty-six authorities for his various receipts and secrets is an interesting one, and shows who were the leading men in practical matters at the beginning of last century.

Under the name of Aristotle, but not by him, there is a work entitled Secreta Secretorum, of which numerous editions appeared both before and after 1501, and which was translated into French, German and Italian. The English version was made by Robert Copland, and printed by him in 1528. The title is given by Herbert, from whom it is copied by Dibdin, who adds that there is a copy in the Public Library at Cambridge. It is also mentioned by Watt and Lowndes. The book was printed again in 1702, in a small 16°:

Aristotles's Secret of Secrets contracted; being the Sum of his advice To Alexander the Great, about the Preservation of Health and Government. Formerly Tran-

¹ Herbert, Typographical Antiquities, London, 1785, I. p. 346; Dibdin, Typographical Antiquities, London, 1816, III. p. 114.

alated out of the original Greek into Latin, and divers other Languages; and being very scarce, is now faithfully rendred into English, For the Good of Mankind.

London, Printed for H. Walwyn, at the three Legs in the Poultry. 1702.

In the preface the bookseller states his wish to rescue the book from obscurity, because of its author and of its own worth that

. . . should have given this Discourse a place in the Volumes of the rest of the Author's Writings, which, . . . is not to be found, either there or in its Original Greek Language; being for a long time since . . . to be found only in a somewhat barbarous Latin Translation, or in an English Abstract, but sorrily translated into now obsolete Language. Which Abstract coming to the Hands of a real Lover of Mankind, who now gives it a Resurrection from its obscurity, did discover so much Excellency under all its blemishes, . . . that he could not be satisfied till he had with some Trouble and Charge got as near the Fountain as he could, viz. the Latin Edition of Paris 1520: the English printed at London 1572, he found to be out of Print, and that the Latin was not to be bought or seen (as far as he could find) any where but in the Bodleian Library at Oxford, and with one Gentleman in London, who was pleased to give him the perusal of it; by which he had not only the means to supply his Abstract, which was not compleat, but to see with how little Judgment the old English Grapho-Chymist had attempted to separate the Quintessence of Aristotle's Instructions to Alexander, leaving out some things very material, and putting in others not much to the purpose, and even missing the true sense of the Author in divers places. Whereupon he soon resolved with himself to make a new Translation and Abstract of this most excellent Counsel of the greatest Philosopher to the greatest King. . . .

This must, therefore, be a new translation; but to what extent it differs from the 1528 version, which, I suppose, is the sorry one in obsolete language, or from that of 1572, I am unable to say. There are no copies of these books in the British Museum, and as for the 1572 edition, I have seen no mention of it at all, anywhere, except in the passage above quoted. Judging by the references to the Latin (which I have likewise failed to see) made by Warton, there can be no doubt that the translation of 1702 (so far as it represents the Latin at all) is a mere abstract. Except for the title, this 1702 book has no claim to a place in these lists; for it has nothing to do with technical art, and the wonderful legends, the secrets of nature, and other tit-bits, which appear to exist in the Latin, have been altogether omitted. It contains advice on the conduct of life, on counsellors, on physicians, on

[&]quot;History of English Poetry, edited by R. Price, London, 1840. See Vol. I. p. cxlv.; p. clii.; p. 135, note x; Vol. II. pp. 230, 231.

moderation in eating, drinking, sleeping; in certain sections it recalls the insight into motives and men displayed in a better known and bitterly reviled work, the *Libro del Principe*. One can conceive that in some of its forms it may have been perused by Machiavelli, though for that matter the politic Italian was quite as able to instruct his princes as Aristotle was Alexander the Great.

The beginning of comprehensive and systematic technological works was made last century. The *Lexicon Technicum* of John Harris, 1704-1710, has been already noticed.²

In 1728, Ephraim Chambers followed with his compilation, which passed through several editions. Those I have seen are the following:—

Cyclopædia: or, an Universal Dictionary of Arts and Sciences; containing an Explication of the Terms, and an Account of the Things signified thereby, in the Several Arts, both Liberal and Mechanical; and the Several Sciences, Human and Divine: The Figures, Kinds, Properties, Productions, Preparations, and Uses of Things Natural and Artificial: The Rise, Progress, and State of Things Ecclesiastical, Civil, Military, and Commercial: with the several Systems, Sects, Opinions, &c. among Philosophers, Divines, Mathematicians, Physicians, Antiquaries, Critics, &c. The whole intended as a Course of antient and modern Learning. Extracted from the best Authors, Dictionaries, Journals, Memoirs, Transactions, Ephemerides, &c. in several Languages. . . . The Second Edition, corrected and amended; with some additions. . .

London: . . M.DCC. XXXVIII.

This is in two large folio volumes, illustrated with copper plates, and there is an elaborate frontispiece depicting the pursuit of the arts and sciences, engraved by J. Sturt. The plates are interesting, especially one of a first-class man-of-war of the beginning of last century, with the names of the different parts of it. The book itself is well done. It contains an elaborate preface on the classification of human knowledge. The individual articles are carefully selected and balanced, and if they are now no longer of practical value in the arts, they are very useful as illustrating the history of their progress and giving information on many subjects, the names of which are still employed, though their original application is forgotten.

The fourth edition corrected and amended was published in two volumes

¹ Trans. Archaol. Soc. Glasgow, 1883, Vol. II. p. 254.

at London in 1741, and to this was added in 1753 a "Supplement," edited by George Lewis Scott with the help of other writers. This also was in two folio volumes. Subsequently the Cyclopædia appeared "with the Supplement and Modern Improvements incorporated in one Alphabet." The editor was Abraham Rees, and the work was in four folio volumes, London, 1786-89. There were other editions which I have not seen.

In 1751-52 came Diderot and D'Alembert's huge work in 28 folio volumes, which unduly monopolised the name of Encyclopædia, for it was not the first. Then appeared the *Encyclopædia Britannica* for the first time in 1771, the successive editions of which bring us down to the present. It is the only one of them all which has retained its vitality and has represented the progress of universal knowledge for one hundred and ten years.

After Albertus Magnus had shown the way to compile Secrets, his name was used to confer a lustre and authority upon a collection and make it win its way, when all other names failed. Such a one was the following:

Der aus seiner Asche sich wieder schön verjüngende Phönix, Oder gantz neuer Albertus Magnus, Mit seinen curieusen Schrifften so wohl rare und unbekannte Wunder und Geheimnüsse der Natur, als auch vornehmlich Von Erzeugung der Menschen, erspriesslicher Fortpflantzung der Familien, wie auch andere vortreffliche Sachen, das Frauen-Zimmer betreffend, vorstellend. Aus vielen bewährten Authoribus mit grossem Fleiss zusammen getragen. Allen denen, so sich in dergleichen Materi geziemender Massen zu verhalten suchen, zum Nutzen und Unterricht wohlmeynend mitgetheilet von Casparo Nigrino M. Zuletzt ist der Hebammen-Catechismus beygefüget.

Hamburg, bey Joh. Georg Hermessen, 1729.

In keeping with its title, opinions and notions are transferred bodily from Albertus Magnus and from Michael Scotus without any criticism or a note of warning that they are five hundred years old, but for the larger part of the book Nigrinus himself must bear the responsibility. The burden is not a light one, for he has entered with great minuteness of detail into the whole subject, and has ventured on the description of some recondite phenomena with a confidence which could hardly be assumed at the present day, even with great increase of knowledge. But, although the book could form nothing now but a solitary item in the bibliography of biology and obstetrics, it contains a stratum of unintentional humour which makes it not absolutely unremunerative to dig in,

A small handbook, translated from the German and published at London in 1739, was: The Laboratory or School of Arts, containing curiosities relating to gold and silver; secrets for jewellers; experiments for making casts in metal, wax, and other materials; glass-making; secrets for the use of cutlers, joiners, japanners, bookbinders, and other handicraftsmen, and some other experiments It has illustrations of various pieces of apparatus, and is a good practical collection, though old-fashioned.

In the face of the sounder knowledge and greater experimental skill exhibited in some of the books just mentioned, there were others still produced based on the old superstitions and fanciful notions. An instance is afforded by the work of Joannes Jacobus de Maldiny, entitled Mirabilia Mundi sive de Scientiarum Artiumque omnium origine et Progressu Tractatus, which was published at Augsburg in 1754, and was dedicated to King George I. From the title one should have expected a history of the arts and sciences, but there is nothing of this kind, and instead we have a collection of very superficial and usually inaccurate statements, inaccurate even for the time, about physics, natural history—plants, animals, and minerals—and chemistry. But what could be looked for from a writer contemporary with Pott and Marggraf and Macquer, who bases his chemistry on Arnold of Villanova's?

A little better is another work:

Physica Exotica, Seu Arcana Naturæ, et Artis. Continens Selecta, curiosa, jucunda, & omni ferè hominum statui utilissima. In Eorum Gratiam Denuo Edita Qui Amæna æquè ac Prodigiosa Ejusdem Utilitate delectantur.

Cassoviæ, Typis Collegii Academici Soc. Jesu, A. 1767.

This I have not seen mentioned by any authority whatever. It contains at the end a tetraglott vocabulary of natural history terms, Latin, Hungarian, German, and Bohemian. It deals with secret writing, secret effects of colours, agriculture, liquors, metals, surgery, cattle, insects, removal of stains from clothes; the selection of secrets, therefore, is catholic, but they are all empirical, and many of them have been concocted by persons ignorant of the nature of the substances dealt with.

Another collection, once more under the shadow of the great name, but differing from all the preceding, appeared in 1768:

L'Albert Moderne, ou Nouveaux Secrets éprouvés, et licites, Recueillis d'apres les Découvertes les plus récentes. Les uns ayant pour objet de remédier à un grand

nombre d'accidens qui intéressent la santé: Les autres, quantité de choses utiles à sçavoir pour les différens besoins de la vie: D'autres, enfin tout ce qui concerne le pur agrément, tant aux Champs qu' à la Ville. Le tout divisé en trois parties, & rangé par ordre alphabétique.

A Paris. . . M. DCC. LXVIII.

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A new book appealed to the people: so that the second edition, Augmentée de plusieurs Secrets nouveaux, followed in 1769, and a reprint of it at Basle in 1770.

The compiler explains that he has named his book out of opposition to the old Secrets of Albertus Magnus and of Albertus Parvus; he criticises these older collections, and points out that his collection is respectable, and free from superstition and sham magic. This *Modern Albert* is more rational, and the author has furnished as sound information as he well could. The first section contains medical secrets; the second various useful receipts; the third describes the preparation of "pleasurable things:"—liqueurs, flowers, painting, and colours. The alphabetical order is interesting as it is one of the first books of secrets arranged in this way; generally there is no arrangement at all.

The same method was followed in another French work of much more thorough character than any of the jumbles of empirical receipts. I refer to the work of Abbé Jaubert:

Dictionnaire Raisonné Universel des Arts et Metiers, contenant l' Histoire, la Description, la Police des Fabriques et Manufactures de France & des Pays Etrangers: Ouvrage Utile à tous les Citoyens. Nouvelle édition, corrigée & considérablement augmentée d'après les Mémoires & les Procédés des Artistes; revue & mise en ordre par M. l'Abbé Jaubert, . . .

Paris. . . M.DCC.LXXIII.

This dictionary is in five small octavo volumes, and contains a great deal about the practical arts, arranged in tolerably comprehensive monographs. The author has stuck closely to his subject, for he does not include in the dictionary an article on Chemistry, which was evidently considered too speculative for the scope of the work.

Just about the end of the century the character of the collections degenerates so sadly, that I have hesitated to include those which I have seen, but as they have been in circulation at some time or other, they may be mentioned briefly. One is entitled, Combinaisons Égyptiennes, ou Recueil de Morceaux

Choisis. It is the fifth edition, "corrected and enlarged," and it was published at Paris, by Hugelet, in the year VIII. It contains secrets from both the grand and petit Albert, interpretation of dreams, a string of lottery secrets, and a fardel of other curiosities. It is hard to say what is worst in this despicable specimen, the paper and print, or the illustrations, which must have been done by a school-boy with no talent for drawing, or the contents. All are worthy of the place and of the year VIII.; but what was the "goddess of reason" about to tolerate five editions of such a gallimaufry?

A tract in English is somewhat more creditable; but the title is ludicrous, considering the contents: The Fountain of Knowledge or British Legacy, containing among upwards of Two hundred other Curious Particulars of the Utmost Service to Families in General. The Indian Way of Marking on Silk, Linen, Woolen, &c. . . and a catalogue of other secrets, medical, chemical, technical. This book contains secrets that I have not noticed in any of the other collections; for instance, how to breed game cocks, "with a choice and valuable secret for feeding a cock four days before fighting, communicated by a noble lord." This pamphlet, for it is nothing more, was printed at London, by Bailey, in Leadenhall-street. There is no date, but it apparently belongs to the close of last century.

The name of Albertus, the name to conjure with, was again dragged into service by Eberhard Heinrich Fischer:

Albertus Magnus der Andere. Das ist: Geheimnisse der Natur und Kunst vor alle Stände, als für Künstler, Jäger, Oekonomen, Professionisten, Handwerker &c. zum Besten aus eignen Erfahrungen aufgesetzet und mit nöthigen Registern herausgegeben. In zweyen Theilen.

Altona und Leipzig, bey Johann Heinrich Kaven, 1797.

The contents of this work are in general of the least useful kind. They consist largely of juggling tricks, and perfectly purposeless practical jokes; the secrets which one knows to be correct, are described in the most empirical and superficial way, and many secrets are just nonsense.

It is an excellent trial to one's patience, the perusal of this volume. One feels at a loss to say whether the author was intellectually weak, or whether the book was itself a practical joke, but I fear it must be accepted as the bona-fide belief of an earnest though credulous and ignorant compiler, far more credulous than even the earlier writers. For the author of the De Secretis

Mulierum, or De Mirabilibus Mundi, whether Albertus Magnus or not, there may be framed an excuse, but for authors last century like Maldiny and Fischer and others, there is apparently none possible, except that the sceptical era of Voltaire was also densely ignorant and superstitious. The eighteenth century was far too fond of boasting of its enlightment, whereas it was so ignorant that it hardly knew what scepticism means.

Some of the secrets revealed by Lovel and others are wonderful enough, but when one reads an account, quoted by Fischer without a word of protest, of a lamp with an incombustible wick, fed by oil of human blood (whatever that might be), burning as long as the person lives, from whom the blood-oil has been procured, and then going out—"Hui!"—when he dies, one's breath feels taken away." Lavoisier had lived, and though the "goddess of reason" having no need of philosophers had guillotined him, what he had discovered about combustion was not destroyed or lost; but only ninety years ago such statements as those of Fischer's were possible in Europe—and Europe was proud of itself.

In the present century, thanks to a better comprehension of science and its applications, books of secrets of all kinds have become almost extinct; and if any linger on they are mere reprints of old collections. Those of Lupton and Cortes have been referred to above, but there are two or three others still to mention. Johann H. M. von Poppe, the author of the Geschichte der Technologie, was a most prolific compiler of technological books. They belong, for the most part, to the modern literature of the subject; but there is one which may be put on the list:

Neuer Wunder-Schauplatz der Künste und interessantesten Erscheinungen im Gebiete der Magie, Alchymie, Chemie, Physik, Geheimnisse und Kräfte der Natur, Magnetismus, Sympathie und verwandte Wissenschaften. . . . Stuttgart: J. Scheible's Buchhandlung. 1839.

This is a collection of treatises by Martius, Wiegleb and Rosenthal, Philadelphia, Pinetti and Von Eckartshausen. It is in six small octavo

¹ This is a relic of the belief in sympathy. An account of the preparation of the wonderful oil and of its use in "The Lamp of Life" will be found in Christopher Irvine's *Medicina Magnetica*, [Edinburgh,] 1656, p. 98. One hundred and forty years later, Fischer makes it all public again, as if it were worth knowing.

volumes, full of all kinds of so-called natural magic; that is, curious and unexpected effects from natural causes and properties of matter, conjuring, sleight of hand; various kinds of receipts, colours, inks, and other things which it would take pages to enumerate. The only question is, whom could this compilation have attracted as reader or student in 1839, and could it secure a public now?

A modern collection, or possibly a reprint of the same period, though with the spurious date 1725, is the Sammlung der grössten Geheimnisse ausserordentlicher Menschen in alter Zeit. This is a set of two and twenty aweinspiring tracts on the blackest of magic, discovery of buried treasure, and other forbidden arts. It contains conjurations, couched in terms so appalling, that the wonder is the demons so invoked did not flee to the remotest confines of their territory to be out of the hearing of such bad language, rather than take any notice of the users of it. There are portraits of the demons, which are creditable to the woodcutter's imagination, though hardly to his skill.

In the first part of these notes I merely mentioned the secrets of "little Albert," of which I had a copy of the French translation, printed at Lyons in 1743. Since then I have got a copy printed at Lyons in 1729, uniform with the secrets of Albertus Magnus of the same date, and another, Lyons 1803, uniform with the Albertus Magnus of "6518." The earlier one is well printed, and the illustrations passable; the 1803 edition is woful.

In reading this work, what strikes one is the uselessness of most of the receipts, or the unattainable aims proposed, or the seeming futility of the means recommended, or the impossibility of geing the requisite materials, or of mixing or using them under the proper conditions. It contains, however, one famous receipt: how to make the "hand of glory," which, according to Dousterswivel, is "a vary great and terrible secrets." And there is a picture of the hand, too.

This work is not only quite worthless, but is humiliating; still, last autumn, it suddenly leapt into a two-days' notoriety, because it appears that its receipts are believed in at this moment and are put in practice. According to a letter in the *Times* of August, 7, 1884, extracted in the *Globe* of the same date, and commented on in a leading article in the *Daily Telegraph* of the following

day, Albertus Parvus and his "weird little volume" are in full blast among the witchmongers of the Mauritius. The story, as told, reveals an amount of criminal superstition in that island which is hardly credible—if it were not in the Times—and the tone of the Telegraph leader abundantly proves that the author thereof was unacquainted with the absurdities, the immoral absurdities, of that wretched fabrication, else he would never have spoken of it as "this unholy tome," in the sort of bated breath style he has affected. For Alberti Parvi libellus is not only nonsense, but nonsense that merits the prefixing of any emphatic adjective, however short, that the reader cares to employ.

Under these same old names chap books circulate in France, but they differ essentially from the originals. They are to be had separately, but they are also issued together under the following general heading:

- La Grande et Véritable Science Cabalistique ou La Sorcellerie Dévoilée Contenant
- 1° Le Grand Albert, ses merveilleux secrets, sa vie et ses travaux scientifiques;
- 2° Les secrets mystiques de la magie naturelle du Petit Albert;
- 3° Le Dragon Rouge ou l'art de conjurer les esprits infernaux, de les vaincre et de les soumettre à sa volonté.

Ouvrage composé après des recherches nombreuses sur les plus anciens et les plus nouveaux documents de la Science.

Paris: Le Bailly, Libraire, Rue de l'Abbaye-Saint-Germain-des-Prés, 2 bis. No date. (1830 ?).

12mo. Le Grand Albert, pp. 107 [1]. Frontispiece (bis) and woodcuts, such vile things! Le Petit Albert, Frontispiece: L'Alchimiste. pp. 5—108, and another picture before part 2. Le Dragon Rouge, Frontispiece: Raising a spirit. pp. 5—108.

This volume is published with the best intentions. One aim is to free the memory of Albertus Magnus from the imputation of having been a sorcerer [save the mark!], and to provide the intelligent reader with an antidote: "Nous mettrons," says the editor, "ainsi entre les mains du lecteur intelligent un préservatif contre les formulaires de magie qui se glissent encore dans les campagnes et aussi contre les gens qui exploitent la crédulité publique en essayant d'utiliser, au détriment de la bourse de leurs compatriotes, la science de mauvais aloi qu'ils puisent dans ces recueils."

There is a brief résumé of Albertus's life, partly historical, partly legendary;

a few of his reputed magical secrets with pictures [such pictures!] of evil spirits, magic circles, and cabalistic characters; a physiognomy, and, lastly, a collection of quite modern receipts, &c., entitled the "true treasures of Albert the Great." Among these are such plebeian commonplaces as how to choose a good milch-cow; what to do if you are bitten by an animal; receipts against drunkenness; for the treatment of drowned people; to make waterproof cloth, and the like.

Of the second tract only a few sections are taken from the old one of the same name; the rest is quite modern, and is reasonable. The editor has but a low opinion of the Petit Albert, for in his prefatory note he says:

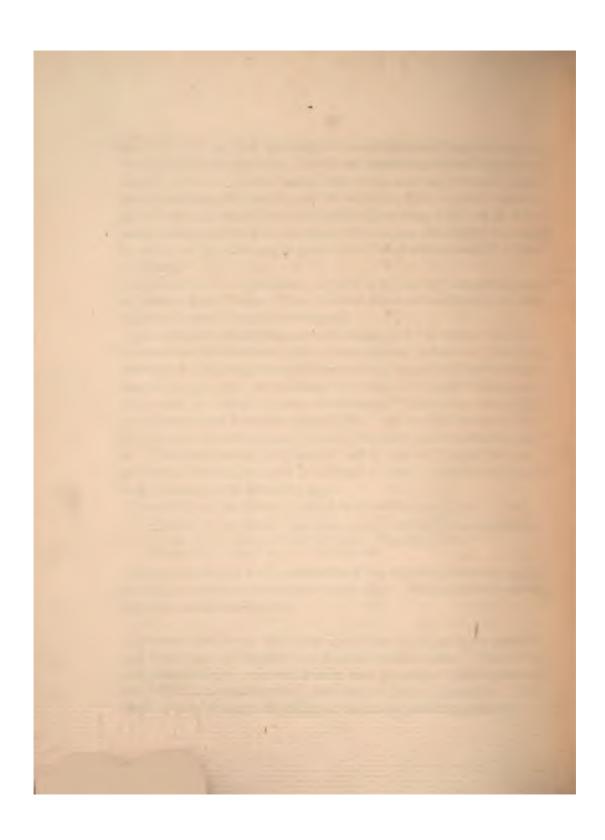
"Si nous donnons quelques recettes excentriques, nous avons un double but: d'abord, amuser le lecteur qui rira de toutes ces inepties dont les prétendus sorciers des siècles d'ignorance se servaient pour abuser les sots qui avaient recours à leur grimoire; ensuite, pour essayer de démontrer combien il était difficile de se procurer les ingrédients nécessaires à ces expériences magiques, partant l'absolue impossibilité de les expérimenter."

The *Dragon Rouge* is a narrative of ghost and incantation scenes, with an expose of the tricks by which they were produced, and a few hints about apparent magic executed by physical and chemical means. The intention is to divert the minds of the French peasants from superstitious terrors, and to turn them to sensible pursuits. It is a laudable, if a required object, but it seems a curious way of attaining it.

It may be remarked that these books are got up in the very cheapest and commonest form, and, except as colporteurs' books for the populace, have no interest or attraction.

Not to be confounded with Le Dragon Rouge is Le Livre Rouge by a person calling himself Hortensius Flamel. It is also a chap collection, published at Paris in 1841. It contains brief notices of the chief magicians, so-called; chapters on gold-making, a chronology of the principal adepts, the influences of the stars, secrets from Albertus Magnus, from the book of Cleopatra, Pliny and others. In the preface, the author professes himself wroth with the shameless books that pass under the name of the great and little Albert, and

² The best portraits of demons that I know of will be found in *The Magus* by Francis Barrett, London, 1801, 4to; coloured miniatures, I presume from life.



BIBLIOGRAPHICAL NOTES

ON

HISTORIES OF INVENTIONS

AND

BOOKS OF SECRETS

PART V

BY

JOHN FERGUSON, LL.D.

PROFESSOR OF CHEMISTRY IN THE UNIVERSITY OF GLASGOW

[Read to the Archwological Society of Glasgow, January 19, 1888]

GLASGOW STRATHERN & FREEMAN, 145 WEST NILE STREET 1889



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[Read at a Meeting of the Society held on January 19th, 1888.]

RARE as are most of the books included in the foregoing parts, they are altogether surpassed in this respect by some which I have met with since my last paper was read to the Society. On these I shall now make some observations before taking leave of the subject.

Several copies of Polydore Vergil's history of inventions which I have inspected might be enumerated, but, in particular, I must refer to one of an edition of the first three books, printed at Paris by Guillaume Le Rouge for Denis Roce in 1513, in small quarto. This has hitherto escaped the notice of all the bibliographers, nor is there a copy in the British Museum, Bodleian, or any other library, to the catalogue of which I have had access. There is also the folio edition printed by Froben at Basel in 1521,* which is the

^{*} From the list in *Trans. Archaol. Soc. Glasgow*, 1883, II. p. 233, there has been omitted an *octavo* edition, printed at Basel in 1521. It is mentioned by Beckmann, but I have not seen it, and I am very doubtful as to its existence.

first that contains the whole eight books. It is also the first that contains the long introductory letter, written by Vergil from London to his brother, which appeared again only in the 1528-29 edition of Stephanus.* There is the folio reprint by Froben in 1525, without this letter, but with a shorter one prefixed to the fourth book, which superseded the other in all subsequent editions which I have seen. Then there is the octavo edition of 1532, printed by Bebelius at Basel, the first of the popular issues. Of the translations may be mentioned that into Italian by Baldelli, reprinted in quarto at Brescia in 1680. This translation was published at Florence, in 1587; it is distinct from that by Pietro Lauro which appeared at Venice in 1543, and again in 1550.† The mere mention, however, of all these editions must now suffice, as details about them and several others have been already communicated by me to the Society of Antiquaries in a separate paper on Polydore Vergil.‡

Among the histories one of the less common is the list of inventions in the *Diletteuole Giardino* of Contarino. In connection with Beckmann's catalogue of histories, I had the opportunity§ of mentioning a comparatively early edition of the book, of which the title may now be given.

Il Vago, E | Dilettevole | Giardino, Ove | Si Leggono | Gli infelici fini de molti huomini Illustri. | . . . | Raccolto dal Padre Luigi Contarino Crucifero. | Con licenza de' Superiori. | Di Novo Ristampato, Et Ampliato. | In Vicenza, Per gli Heredi di Perin Libraro. 1589. |

This is a common Italian quarto of the sixteenth century, printed in italics on inferior paper, and is of no bibliographical interest; a book in every way resembling the Italian translation of the *Margarita Philosophica*, described below. Since then I have examined the fifth edition, which is also in quarto, and was printed in the same style as the other. The title is as follows:

^{*} Trans. Archaol. Soc. Glasgow, 1883, II. p. 238.

^{† 16}id.

[‡] Read June 19, 1887, and printed in the Archaelogia, vol. LI. That paper carries out the intention I formerly expressed (Trans. Archael. Soc. Glasgow, 1886, I. p. 199) of describing all the English editions of Vergil's history of inventions; and, besides, it supplements what I have said about Vergil in previous parts of these Notes.

[§] Trans. Archaol. Soc. Glasgow, 1883, II. p. 231.

Il vago, & diletteuole | Giardino | Ove Si Leggono ! Gli infelici fini di molti Huomini Illustri. | . . . | Raccolto dal R. Padre Luigi Contarino Crocifero. | Et in questa quinta editione accresciuto di noua aggiunta, | & con diligenza emendato. |

In Vicenza, Per Gio. Pietro Gioannini. MDCVII. | Con Licenza De' Svperiori. |

This edition is in two parts: the first is simply a reprint of the earlier work, but in the second, Contarino has given a great many other memorable examples of the casualties in human history. This second part has a separate title page:

Aggivnta | Al vago, & diletteuole | Giardino | Del R. P. Lvigi Contarini Crocifero, | Dall' istesso nuouamente composta. | |

In Vicenza, Per Gio, Pietro Gioannini. MDCVII. | . . .

and in it there is a long catalogue of the headings under which the author has grouped his instances, just as is done in the title-page of the first part. It is not requisite to quote these, for though they all are very instructive, none of them has any bearing on the history of the sciences or arts. From the general title of the whole work one would infer that the appendix was first incorporated with the fifth edition, but this would be wrong, for, prefixed to the appendix, is a dedication to Tomaso Contarini, which is dated September 23, 1589, and is signed by the heirs of Perin, bookseller, so that this appendix must be as old as the edition of 1589. There is no indication, however, of any such supplement forming an integral part of that edition, unless the copy just quoted is defective; but it is quite possible that, although the appendix was compiled by the author at that time, it was not printed for some years later. Here once more, comparison of the first edition with those which came after it is the only method of ascertaining when the addition It will be observed that, in the title of the appendix, the author's name is spelled Contarini, and not Contarino, as in the first title.

This is an interesting work to dip into, provided one is not in a too critical mood, for a disposition to question any of the recorded statements would have the effect of dissolving the charm. The same care of course is requisite in the perusal or consultation of most of the books that have been mentioned in the course of these researches. They must be accepted as facts in the

history of knowledge and literature, and must be judged, not by critical canons possibly applicable to present books, but by generalizations of history bearing upon the culture of the time of their production. From that point of view they are invaluable and indispensable, for from them alone—the books, which the number of editions they have passed through proves were most widely read—can be learned what were the knowledge, belief, science and critical power of their authors.

Contarino, the author of this comprehensive commonplace book, which displays wide reading, was a Venetian noble, who studied at Padua, entered the congregation of the *Crociferi*, and had a great reputation for his knowledge of history, poetry, and literature. Suffering from phthisis, he went to Naples for change of air, but ultimately succumbed there to the disease in 1650, in the forty-eighth year of his age. He edited the works of his father, Gaspar Contarino, and, besides the *Giardino*, wrote books on the origin of Naples, the antiquity of Rome, and other subjects.*

A remarkable contribution to the history of discovery was made in a volume published in 1684, entitled *Inventa Nov-Antiqua*. The author, Theodor Jansson van Almeloveen, was born at Mydregt, near Utrecht, July 24, 1657. At the University of Utrecht he studied ancient literature, philosophy, and theology under Grævius, de Vries, and Leusden, and medicine under Munniks and Jacob Vallan. He went through the whole round of knowledge and became doctor of medicine at Utrecht in 1681. He settled at Gouda in 1687, and founded a learned society there in 1692. In 1697 he was appointed professor of History and Greek at Harderwyk, and subsequently in 1702 he became also professor of medicine. He died July 28, 1712.† He was an indefatigable author and editor, and acquired the highest reputation as a

^{*} Jöcher, Allgemeines Gelehrten-Lexicon, Leipzig, 1750, I. col. 2073. Graf Henckel von Donnersmarck (Ersch and Gruber's Allgemeine Encyclopädie, Leipzig, 1829, Sect. I., Th. xix., p. 200) says his uncle Gaspar. The Giardino is not mentioned in this article.

[†] Chaussier and Adelon (Biographie Universelle, Paris, 1843, I. p. 508) say he died at Amsterdam, leaving his manuscripts to a friend and his collection of Quintilians to the University of Utrecht. But Jöcher (Allgemeines Gelehrten-Lexicon, Leipzig, 1750, I. cols. 288-9) says he died at Harderwyk, which I suspect is the more correct statement of the two. Compare Kestner, Medicinisches Gelehrten-Lexicon, Jena, 1740, pp. 28-29.

teacher, and for his scholarship, science, and particularly for his great bibliographical knowledge. For this specialty, it has been suggested, he may have been indebted to the opportunities of observation afforded him by his uncle Jansson, the printer, whose name he bore. A list of his writings is given by Eloy and others.* What entitles him chiefly to mention here is the work already cited, together with a brief dictionary of discoveries. As these are not at all common, they may be described in full.

Theodori Janssonii ab Almeloveen Inventa Nov-Antiqua. Id est brevis Enarratio Ortus & Progressus Artis Medicæ; ac præcipue de Inventis vulgo novis, aut nuperrime in ea repertis. Subjicitur ejusdem Rerum Inventarum Onomasticon. Ad Virum Clarissimum Iacobum Vallan

Amstelædami, Apud Janssonio-Waesbergios. M. D. C. LXXXIV.

This forms a small 8vo volume of 32 preliminary pages, containing an engraved and a printed title, preface to the reader, congratulatory verses and list of authors cited, 249 pages of text and 7 of index.

The Onomasticon has a separate title:

Theodori Janssonii Ab Almeloveen Rerum Inventarum Onomasticon.

Amstelædami, Apud Janssonio-Waesbergios. M. D. C. LXXXIV.

and it has also separate signatures and pagination.

In the Inventa Nov-Antiqua the author discusses, with profuse learning and

with a strong bias towards antiquity, the question how far the discoveries in medicine of the moderns were anticipated by the ancient physicians. In this special department, therefore, he sustains the thesis which was subsequently taken up by Dutens and which, in its greatest amplitude, led to the serious debates of Temple and Wotton,† and to the satirical Battle of the Books. In the case of medicine, however, this thesis cannot be assented to even as regards the seventeenth century, except to a very limited extent. The ancients may have observed certain facts which were forgotten in the middle ages, or they may have guessed at or inferred certain things as pos-

sible, but they could not have demonstrated them with even such accuracy as was possible two centuries ago, for scientific method was

^{*} Eloy, Dictionnaire Historique de la Médecine, Liége, 1755, I. p. 49. Nouvelle Biographie Générale, Paris, 1859, II. cols. 190-191.

[†] Trans. Archaol. Soc. Glasgow, 1883, II. p. 244.

not sufficiently developed to admit of it. Nevertheless, the work of Almeloveen must be regarded as important for the progress of the discussion. It brought out what could be said in favour of the ancients, but it showed also that their influence was distinctly on the wane, when men had to be convinced of its existence by actual demonstration.

The vocabulary of discovery which follows the main treatise is worth notice. In the address to the reader the author describes how, when his treatise on newantique inventions was drawing to an end, he was at a loss whether he should publish separately, or append to it, the vocabulary he had arranged. By the advice of his friends he added it to the other book. Then he compares his work with those of others who have written professed histories of discovery, as for example, Matthæus, Sabellicus, Polydorus Vergilius, Sardus, Ravisius Textor, Gilbertus Cognatus, all of whom have been already before us. He says that some have been too diffuse, others confused, some have omitted the inventions, others the authorities and evidences, while others have followed no definite order, so that it is not easy to find either the place or time of what one seeks. On these predecessors he has endeavoured to improve by arranging the matter alphabetically, by giving the name of the inventor and the authority or authorities for his statements. The Onomasticon is of course a brief enumeration of facts, a bare list of the most striking discoveries that were known to the ancients and the beginning of which was ascribed by them to famous, sometimes mythical personages, and it is but seldom that more than two or three lines are given under each heading. One naturally compares it with the lists of Pastregicus, Contarino, Textor, and others, to which it is superior, especially in exact references to the authorities. Many, if not all, of these might now require revision and correction, but it was a step in advance to have compiled such a vocabulary at all, and to have given chapter and verse for the various statements. Contarino, for example, gives no authorities, and though Pastregicus gives these, he omits references to the particular passages quoted. The last named author follows the alphabetical order of the inventors' names, whereas Almeloveen follows the alphabetical order of the names of the inventions. One, therefore, is a convenient counterpart to the other.

Another similar history, Schediasma de curiosis hujus seculi inventis,

was published at Kiel in 1695 in a small 8vo volume, pp. [16] 342. It contains sections on new inventions and how they stand related to old knowledge, on studies, on the Cartesian system, on morals, on discoveries in medicine, mathematics, physics and mechanics. There is a copy of this first edition as well as of that which followed, in the British Museum. The author, George Pasch or Paschius,* was the son of a merchant and was born at Danzig, September 23, 1661. After finishing his schooling there and displaying great talent as a disputant, he went to the Universities of Rostock, Wittenberg, where he studied theology and took his degree in 1684, then to Leipzig, Halle, Jena and Erfurt, and on his return to Wittenberg became "assessor" of the Faculty of Philosophy in 1686. Then he started upon a learned tour to the different Universities, in order to make the acquaintance of the scholars of his time, and to study theology and other subjects. He travelled through Germany, Bohemia, Poland, Denmark, Holland and Belgium, France and England, visiting Oxford and Cambridge. On his return he received at Kiel the professorship of Moral Philosophy. In 1689 he married: in 1701 he was appointed also professor of Logic and Metaphysics. In 1706 he became extra-ordinary professor of Theology and resigned the Moral Philosophy chair. He had been for some years in feeble health when he died suddenly while at dinner (cum mensæ prandens assideret) on September 30th. 1707, aged 46 years and one week.

Paschius was a skilled theologian and a man of wide interests and varied culture. He lectured on all the branches of philosophy, and was able to give instruction in English and in Polish, which latter language he had acquired in a few months when a school boy. His professorial lectures were distinguished by their clearness and thoroughness. He was the author of a number of academic dissertations on philosophical subjects, most of which were published.† One of the most important of his books is the present one on the history and progress of the sciences, and in it are displayed not only very

^{*} There are numerous notices of Paschius. The most accessible are those by Johann Moller, Cimbria Literata, Havniæ, 1744, II. p. 610, and by Henrich Döring in Ersch and Gruber's Allgameine Encyklopädie, Leipzig, 1840, Sect. III. Th. xiii. p I. Other references are given by these writers.

[†] A list both of his published and unpublished writings is given by Moller.

extensive learning and varied knowledge, but critical skill as well. The work is a review of contemporary philosophy, science, medicine and literature, and it proves that Paschius was not only a man of indomitable perseverance, but of great attainments to enable him to arrange and classify the material he had collected and to compare the progress of modern discovery with ancient inventions and anticipations. The work is written with lucidity, and fully bears out what is said of his power as an able lecturer and successful teacher.

The first edition forms a small 8vo volume; it was well received and favourably noticed.* It did not satisfy the author, however, for he went on adding to it, so that when a new edition was called for, he was able to produce a much enlarged account of the subject. The second edition was published at Leipzig, five years later, and it is this which I have examined more minutely. The title is as follows:—

Georgii Paschii, . . . De Novis Inventis, Quorum Accuratiori Cultui Facem Prætulit
Antiquitas, Tractatus, Secundum ductum Disciplinarum, Facultatum atque
Artium in gratiam Curiosi Lectoris concinnatus. Editio Secunda, Priori quarta
parte auctior. Additi sunt Indices I. Auctorum, quorum scripta, dicta & facta
recensentur, illustrantur, laudantur vel castigantur. II. Rerum maxime memorabilium.

Lipsiæ, Sumptibus Hæredum Joh. Gross I. MDCC.

This forms a respectable quarto volume, containing three times as much matter as the previous edition, and it is even now a useful work for the history of the arts and sciences; in the physical and medical sections particularly being full of interesting notices of the discoveries of the seventeenth century. While, therefore, its main end is to allocate to the ancients all the credit they deserve, or can claim, for the advances they made and their anticipations of more recent discoveries and inventions, yet, as these quite modern discoveries have also to be described very fully in order that the relationship may be exhibited, Paschius' book to some extent plays the part which an annual report, or a year-book of inventions does at the present day. So far as I know

^{*} A description of the contents will be found in the Acta Eruditorum for August, 1696, pp. 390-2, and in other periodicals as well, for which Moller may be consulted. Niceron (Memoires, VII. p. 270) in his list of Paschius' works, gives a flattering account of the Schediasma.

there was no edition subsequent to the present one, and both editions of the book have now become rare. It is not included by Beckmann in his list of histories,* though he quotes it elsewhere, and it has been passed over by Graesse.

From what has just been said it will be seen that Paschius was a follower of Almeloveen. Indeed he adopts the very title of his book, Inventa Nov-Antiqua, and, in his review of writers of history, duly admits† that Almeloveen had already forestalled his design—so far at least as medicine was concerned -of assigning to the ancients everything of alleged modern discovery that they can be said to have anticipated. But Paschius has worked on a much wider plan and has included many topics in addition to medicine, besides entering into a fuller account of them. The comparison, however, of the discoveries of the ancients with those of the moderns, merely for the praise of one at the expense of the other, is not satisfactory; the only real practical outcome of such discussions is the arrival at a more accurate knowledge of antiquities and of the history of scientific discovery by the collecting and sifting of evidence. apart from the respective glory or merit of the workers in different ages and under so very different conditions. Both Almeloveen and Paschius, however. did excellent work for the history of discovery though their main aim no longer interests the modern historian.

A Dictionnaire des Inventions, des Origines et des Découvertes, by Noël, Carpentier and Puissant, already in its fourth edition, came out at Brussels, in 1838. This work is comprehensive, and the articles, though brief, are fairly well executed. It is, however, fifty years old and it contains much which, though new then, has been completely superseded, and statements by authorities, the best of their time, whose very names are now all but forgotten. This, however, is the fate of most human effort, and it can be pondered as one of the lessons of history.

Five more copies of the two sets of secrets attributed to Albertus Magnus have come into my hands, all of them of importance.

The oldest, as far as I can judge, is of an unknown edition of the Liber

^{*} Trans. Archaol. Soc. Glasgow, 1883, II. p. 231.

[†] De Novis Inventis, Lipsiæ, 1700. Præsatio ad Lectorem, sig. b 3.

Aggregationis. There is nothing at all resembling it in the descriptions of Panzer, Hain, Graesse and Brunet, so that the following may fill a blank in he catalogue of fifteenth century books.

F. 1a, with signature at, begins:

Liber aggregationis seu liber secretorum albti i magni de uirtutibus herbarum lapidum et anima | lium quorunda 3 Liber primus de uiribus quarun | dam herbarum. |

Icut uult plis in pluribus locis Omnis | scientia de genere bonorum est:

Verun | tñ enim operatio aliquado boa aliquado | mala prout scientia mutatur ad bonum et ad ma | lum sinem ad quem operatur: &...

F. 176, L. 16:

Expliciunt Secreta aliqua alberti magni d' Colonia fu | per naturis: uirtutibus. 7 efficacia herbarū: lapidum | 7 animalium quorundam. |

F. 20b begins:

EIVSDEM ALBERTI MAGNI. DE MIRABILIBVS MVNDI FE LICITER INCIPIT.

OSTQVAM SCIVIM
VS QVOD OPVS SAPI
ENTIS EST FACERE
CESSARE MIRABILIA

rerum que apparent in conspectu hominum q̃3uis uaria: &-c.

F. 42a, l. 23:

Albertus Magnus. De. Secretis nature. Explicit.

F. 42b:

t autem qui legeris q fupius notata füt
u 'uberiorem fructum capias uolumus cõe3
regulam et breuem tradere ad fciendum (sic)
ortum Lune secundum epactam: cui applicabimus
perpetuā rationē pasce & c.

F. 43h, l. 25:

Et Sic Est Finis,

This is a small 4to; printing $51^{1}6 \times 31^{1}6$; signatures **a** to **1**4 in eights, except **a**, which is in seven, or ff.43 in all. There are 27 lines to the page. There are catchwords on the last page of each sheet, except sheet **b**. The type is semigothic, and there are comparatively few contractions, but the capitals are some

what ornate, especially M, I and F.* There is no place, printer's name or date, but it looks as if it might have been printed about 1470, or very shortly after, in Germany. In this particular copy signatures of ij and ovij (the corresponding leaves of the sheet) are supplied in manuscript contemporary with the book, and there are numerous manuscript notes of the same period on the margin. The most striking anomaly in the book consists in sheet a containing only seven leaves. As the text is complete, a leaf, probably blank, is wanting, but whether at the beginning or the end, it is a little difficult to ascertain From an examination of the water marks, however, I infer that it is the first leaf that is wanting and that the printer began on what was really the second leaf, though he called it a1.

As I have said above, this edition is not mentioned in any list that I have been able to examine. It resembles Machlinia's edition in having 27 lines to the page, but in every other respect it is quite different.† In the British Museum (7509. d.) there is a copy of the *Liber Aggregationis*, which is described as follows:

Begin. [fol. a. 1. recto:] Liber aggregationis seu liber secretorum albii magni de uirtutibus herbarum lapidum et animalium quorunda3, etc. [Fol. c. 2. verso:] Expliciunt Secreta aliqua alberti magni d Colonia super naturis uirtutibus 7 efficacia herbarū: lapidum 7 animalium quorundam. [Fol. f. 3. recto:] Albertus Magnus, De. Secretis nature, Explicit, [Fol. f. 3. verso:] Ut autem . . . fructum capias uolumus . . . regulam . . . tradere ad sciendum ortum Lune, etc. [Fol. f. 4. verso:] Et Sic Est Finis.

3. 1. MS. NOTE. [1475?] 4°.

Without title page or pagination; register a.—f. 4, in eights, except b. and c., which are in sixes. The first leaf is blank.

I have not seen this copy, and unfortunately the number of lines in the page is omitted in this case, though that is also frequently given in the catalogue. According to the register this volume contains 42 leaves.

It will be seen on comparison that this volume tallies, within certain limits with the copy now describing, though there are also some fundamental

^{*} A peculiarity to be noticed in the capitals at the top of f. 20 b is that they are roman, except M, G and I of which some are gothic, and the letter A which has no cross line, but resembles the greek A. Elsewhere also in the book the gothic and roman capital M are interchanged with rather singular effect.

[†] See collation in Archaelogia, London, 1886, XLIX. pp. 338-339.

differences. In my copy b and c have eight leaves each, not six, and the whole work contains 43 leaves (originally 44 leaves, counting the blank one), whereas this copy is complete with 42, counting the blank first leaf. In all probability therefore the number of lines per page is different in the two editions. The difference in type, if any, could be ascertained only by direct comparison.

The next is a copy of the De Secretis Mulierum, and as it bears on a point of controversy it may be described in full.

- F. 1a, Title: Secreta mulierum ab | alberto magno coposita | [Woodcut: a master with a book on a desk, instructing two scholars.]
- F. 2a, with sig. a ij.: (s) Cribit philosopho philosopho princeps. iiij. Ethico | rum Homo est optimu eo que sunt in mudo 7 mun- | dus & c.
- F. 33b, l. 25: Finis huius Tractatuli ve | nerabilis Alberti magni.

This is a small quarto, without date, place and printer's name, but it is generally agreed that it was printed at Cologne by Heinrich Quentell about 1480.* It has 33 leaves with the signatures: a vj, b vj, c iiij, d vj, e vj, f v. Leaf 34, or f vj, is wanting; it may be blank, or it may contain the register. Two sizes of black letter are used: one, the larger, for the text; the other, somewhat smaller, for the commentary. The first page contains 39 lines, excluding the signature line, the last, 26 lines. The only page which is printed in one size of type throughout is fij, recto, and it contains 33 lines of the large type, equivalent to 40-41 of the small. Two copies, or variants of this book apparently, are quoted by Panzer (Annales Typographici, IV. 80, Nos. 30, 31), who says that the woodcut on the title-page represents the master and three scholars. Hain (Repertorium Bibliographicum, No. *557) also describes the book, but says there are two scholars. His words are: Infra icon magistri cum duobus (non tribus, ut Panzer dicit) discipulis. Sinker† quotes a copy of this book in the Library of Trinity College, Cambridge, and adds this note:

In this copy, as in that described by Pauzer, there is a woodcut on f. 1ª of a master with three scholars; whereas Hain expressly speaks of two ("non tribus, ut Panzer dicit.")

and so he queries Hain's No.* 557. My copy, however, has unmistakably two scholars only, just like Hain's. The conclusion plainly is either that there

^{*} This may be so, but it is a very different looking book from the Compendium theologice veritatis of Albertus Magnus, printed by Quentell's heirs in 1506.

[†] Catalogue of the Fifteenth-Century Printed Books in the Library of Trinity College, Cambridge, 1876, No. 87.

are two title-pages to this edition, or else that Quentell issued two editions, which have not been distinguished from one another because they have never been compared. It remains to be decided whether the edition with the two scholar vignette agrees throughout with that with the three scholar vignette. I think it is quite possible that they may differ entirely and yet contain the same number of leaves. In the meantime as I am unable to settle it, I must leave the question open. The contents correspond with the edition described in Part III.* (Hain No. 555), but there are various readings both in the text and in the commentary, and the present book is besides inaccurately printed.

The third copy is one of the *Liber Aggregationis*, and it also seems to have been printed in the fifteenth century:

- F. 1a, Title: Liber aggregationis seu liber secretotum (sic) Alberti magni | de virtutibus herbarum, de virtutibus lapidum et, de virtu | tibus et efficacia animalium quorumdam |
- F. 1b: Liber aggregationis seu liber secretoru Alberti magni de | vitutibus herbar2:

 de virtutibo lapidu: 7 de virtutibo aialiu | quorumdam Prologus |

 Icut vult ph'us in pluribus locis Omnis scientia | de genere bonoru3

 est &c.

F. 12a, l. 16:

Expliciut secreta aliqua Alberti magni de. colonia super na | turis vitutib9 7 efficacia herba? lapidu 7 aialium quorumdam |

F. 11b, blank.

8vo, in sixes. The first sheet has no signature, the second has the signature b. There are 12 leaves in all; 34 lines to the page; gothic character. There is no date, place or printer's name.

This copy belonged formerly to Dr. George Kloss and has his book-plate. In his sale-catalogue (London, 1835, p. 7) it appears as No. 66, and is there assigned (though with a query) to Bartholomæus de Winckel, or de Unckel, of Cologne, 1480, or 1483. It has been overlooked by Panzer (as Kloss has noted) and also by Hain, and I have not been able to identify it with any copy in the British Museum. This edition contains only the *Liber aggregationis*, and not the *De mirabilibus mundi* which follows in most other editions, and it exhibits some various readings.

^{*} Trans. Archaol. Soc. Glasgow (N.S.), 1886, I. p. 208.

Long after these come the other two copies I have to mention. The first of them was printed at Strassburg by Zetzner, in 1615. It is a re-issue in the same form and containing the same number of pages as the edition printed by Zetzner in 1607, to which I referred before.* Then in 1625 Zetzner brought out another edition in the same square 16mo form as its two predecessors. Like them also, and like so many of its successors, it contains the closely related work De Secretis Natura, or De Physiognomia, of Michael Scotus, of which a detailed description has been given in papers read to this Society.†

There seems to have been no end to the demand for these books, for in 1614, and again in 1616, and 1663, the *Liber Aggregationis* was included in the compilation of Longinus, called *Trinum Magicum*, which will be considered under its proper date below.

In the catalogue of authorities cited by Gesner in his book of secret remedies (1552, p. 23) is the work de Quinta Essentia, by Raimundus Lullius, already quoted by me under the title De Secretis Natura. † It was first published at Strassburg and afterwards at Nürnberg. Gesner's account is as follows:

Raimundi Lulli liber optimus et doctissimus de quinta essentia, qui Argentorati olim editus est et nuper Norimbergæ, sed in multis differens. Mihi exemplaria duo manuscripta sunt, et alia duo apud amicum vidi, quæ omnia et inter se et ab impressis differunt.

I have not seen the Strassburg edition, which was published about 1516, but as far as the other editions go: Venice, 1542; Nürnberg, 1546; Cologne, 1567, I can confirm what Gesner says. I also have got a manuscript of Lully's tract. It is in Latin, and is written on paper in a contracted hand of the fifteenth century. It contains 103 leaves, and comparison with the printed copies substantiates the differences between the manuscript and printed copies, alluded to by Gesner.

^{*} Trans. Archaol. Soc. Glasgow, (N.S.) 1886, I. p. 212.

[†] The first paper was read so long ago as March, 1878. The second paper embodying all that that I have been able to find about Michael Scotus and his writings was read in April, 1886. This will be printed in the *Transactions*, as supplemental to these sections about Albertus Magnus.

[‡] Trans. Archaol. Soc. Glasgow, 1883, II. p. 261.

Since the sketch by Zacharias Lilius of the progress of the polite arts, logic, rhetoric, grammar, arithmetic, music, geometry, astronomy, published in 1496, has been counted among the histories,* it would hardly be fair not to recognise a book of some importance, which is said to have been published in the same year, and which treats of these arts themselves. The author, Gregorius Reisch, flourished at the end of the fifteenth century, was head of the Carthusian monastery at Freiburg and confessor of the Emperor Maximilian, and wrote a cyclopædia of knowledge, one of the first, entitled Margarita Philosophica. According to the descriptions of Panzer and Hain, the first edition of this work has no date, or place, or printer's name, but was probably printed at Heidelberg in 1406. Hain did not see a copy of this edition and seems to have taken his notice of it from Panzer, but there is no evidence that the latter authority saw a copy. There is no copy of this date in the British Museum catalogue, and I have not seen it mentioned in any other list. All this shows that it must be a book of extreme rarity. The colophon, however, of the 1503 edition, to be mentioned immediately, raises a doubt as to whether an edition of 1496 ever existed. For in that colophon the edition of 1503 is distinctly termed the first. But, at whatever time it was published, it soon went through a number of editions, showing that it met a demand for instruction, and that the people were anxious to learn what passed for the best knowledge upon all topics. A list of these editions can be gathered from Panzer, and it brings to light the fact that parallel editions were run at Freiburg, Strassburg and Basel.

Freiburg, Joh. Schottus 1503, 4to, Panzer, VII. 58. 1. Strassburg, Joh. Grüninger 1504, 4to, VI. 30. 37. Freiburg, Joh. Schottus 1504, 4to, VII. 58. b (misprint for 2). Strassburg, Joh. Schottus 1504, 4to, VI. 31. 44. Strassburg, Joh. Grüninger 1508, 4to, VI. 39. 107.

^{*} Trans. Archaol. Soc. Glasgow, (N. S.) 1886, I. p. 195.

[†] Hain's notice (No. 13852) is brief:

Reisch (Gregorius) Ordin. Carthus. Margarita Philosphica. Ex Heidelberga III. Kal. Ianuarias MCCCCLXXXXVI. s. l. a. et typ. n. 4. (Forte Heidelbergae cod. anno)

Panzer, Annales Typographici, Norimbergae, 1793, I. p. 459. No. 13.

Basel, Mich. Furter, Joh. Schottus 1508, 4to, VI. 184. 64. Strassburg, Joh. Grüninger 1512, 4to, VI. 55. 244; IX. 359. 244. Strassburg, Joh. Grüninger 1515, 4to, VI. 69. 353. Basel, Mich. Furter 1517, 4to, VI. 199. 181.

Basel, Henr. Petrus 1535, 4to, VI. 305 (misprint for 308). 1033.

Brunet* quotes a Basel edition of 1583, 4to, and says that it and the edition

of 1535 contain additions to the original work by Oronce Finé, which are included also in Gallucci's Italian version, Venice, Barozzi, 1599, 4to.

The British Museum has a good representation of the early editions. The following are taken from the catalogue: Grüninger, 1504; Schottus, 1504; Furter and Schottus, 1508; Grüninger, 1508; Grüninger, 1512; Grüninger, 1515; Furter, 1517; Henricpetrus, 1535; Italian translation, 1599.

Of the different issues I have examined only those of 1503, 1517, and the Italian translation dated 1600.

In the Library of the University, Glasgow, there are two copies of the 1503 edition. One of these, in the Euing collection, is on thick strong paper and is in the original binding, wooden boards covered with stamped hogskin, the other is in Professor Allen Thomson's collection, and is on fine thin paper. Whether this difference be accidental or intentional, I am unable to say.

The title-page consists of the two words: Margarita Philosophica, in black letter, and the rest of the page is occupied with a large woodcut representing the arts and sciences under the three heads of divine, natural and moral philosophy. An elevated three-headed female figure with wings, holding an open book in the right hand and a sceptre in the left, typifies the triple philosophy—natural, rational, moral, of human affairs. Surrounding the central figure at a lower level are other seven female figures with the symbols of the different arts, and all this is enclosed in a circle on which are inscribed the subdivisions of philosophy and the names of the polite arts aforesaid: logic, rhetoric, grammar, arithmetic, music, geometry, astronomy. Outside the circle, at the top, divinity is represented by Augustine, Gregory, Jerome and Ambrose; below, Aristotle is the representative of natural philosophy; Seneca, of moral philosophy. Throughout the book similar full-page symbolic

^{*} Manuel, Paris, 1863, IV. col. 1201. There is a copy in the Library of Trinity College, Dublin, Catalogue, Dublin, 1883, VII. p. 69.

woodcuts depict the main divisions of the subject, and accompanying the text there are besides a multitude of illustrations, large and small, partly symbolic, partly descriptive and diagrammatic. The book is printed in roman character, and contractions are employed in great abundance. There are signatures, but no pagination or catchwords. The first seven pages are occupied with the title, the reverse of which is blank, the contents, the symbolic drawing denoting grammar as the key to all knowledge, verses addressed to Reisch by Adam Vuenherus Temarensis, and, lastly, the subdivisions of philosophy, after which the text begins. The subject is divided into twelve books. The first is on grammar beginning with the alphabet, Hebrew, Greek and Latin, and going on to the parts of speech, construction and prosody. Book two deals with formal logic, propositions, reasoning, the syllogism and fallacies. Book three treats of rhetoric, Book four of arithmetic, and Book five of music. a specially interesting section, as it is an early dissertation on the subject, and contains besides some music printing. Book six is devoted to geometry, and Book seven to astronomy, which is that of Ptolemy, and which is elucidated by diagrams of eclipses and schemes of cycles and epicycles. Under this head comes geography, followed by a treatise on astrology, which gradually drifts into divination in general and necromancy in particular. Book eight is occupied with natural philosophy: the general properties of material objects, fate and chance, miracle, motion, generation and corruption, time, space, and vacuum. Book nine discusses the origin of natural things, the elements, fire, rain, hail, the saltness of the sea, earthquakes, wind, thunder, comets, alchemy and the metals, plants, animals, man, monsters. Books ten, eleven and twelve are concerned respectively with the senses, the intellect, and morality.

It is quite impossible to enumerate all the topics reviewed by the master with his pupil, for the work is in the dialogue form, but there are two or three which may be noticed. One is the diagram (in the section on astrology) of a man with the different parts of his body represented as under the signs of the zodiac.* There is another curious anatomical drawing of the chief

^{*} It is this picture which has been described by Southey, *Doctor*, London, 1835, III. p. 112. Pettigrew (Superstitions connected with the History . . . of Medicine and Surgery, London, 1844, p. 31) quotes Southey and calls the Margarita an "amusing work." It is hardly that.

internal organs of the body, and there is a diagram of a magnified section There is an interesting anticipation of phrenology in a diagram of a human head, with a band of the skull removed, revealing the brain upon which the names of certain faculties are inscribed; the author being evidently of opinion that they had a local habitation as In the eleventh book, under the heading De Potentiis Animae Intellectivae, the author gets into the next world and not only describes what is there but gives drawings of the different localities. The picture which accompanies the 42d chapter: de locis infernalibus quattuor in campo miseria, is interesting as the representation of a medieval conception of the place of misery, and is a curious mixture of pagan ideas and a later demonology. In front is the river, the Styx, of course, on which is a boat with a freight of souls rowed by an old man, labelled distinctly Charon. The river issues from below the mouth of the infernal monster, which is represented as covered with scales and belching forth flames from every part. The draughtsman has left the form of the monster rather vague, but as it retires into the background it developes into what looks like a series of coke ovens in full operation, Souls of human beings are depicted as crowding in and around hell's mouth, and fantastic demons with beaks, and horns, and claws and the fiercest of moustachios are subjecting souls to punishment or torture with clubs and hammers. This conception of the loci infernales as the mouth of a ruthless dragon, is illustrated in the contemporary poem of Damerval.*

The work is provided with an elaborate index carefully constructed to facilitate reference and concludes with an ode from Paulus Volzius to Reisch, whom he calls Georgius, not Gregorius. Then comes the colophon:

Chalchographatum primiciali hac pressura, Friburgi, p Ioannē Scho ttū Argeñ. citra festū Margarethę anno gratiæ M.CCCCC.III.

which leaves no doubt that this is the first edition.

^{*} It is entitled Le liure de la deablerie, and was printed in black letter at Paris, by Michel le Noir, in 1508. The picture occupies nearly the whole title-page, and represents Lucifer sitting on the snout of the gaping monster with demons flying around, while standing below is Satan. Souls and a demon with projecting or "buck" teeth are cowering within the jaws. A similar representation is given by Wolfius, Lectiones, I. p. 230, and others like it will be found in other books.

The last page is occupied entirely with a large woodcut of the printer's device.

The edition of 1517 is distinguished by several differences. The title-page runs thus:

Margarita
Philosophica cū
additionibus nouis:
ab auctore suo
studiosissima
reuisione
quarto
super
addi
tis
Anno domini. M.D.XVII.

This title is in gothic letter, except the last line, which is in roman, and it is printed in red, except the florid initial M and the last line which are in black. It is contained in a scroll, with rolls at the top and bottom, and the whole is enclosed in an ornamental woodcut border containing figures, grotesques, medallions, wreaths and scroll work. Altogether this is one of the most elegantly designed title-pages which I have met with.

The book is a nice 4to, printed throughout in two sizes of gothic type. It has signatures, but no pagination. The illustrations are for the most part reimpressions of those found in the 1503 edition, but, as was to be expected, they are not quite so sharp. Some have been omitted, for example, the title-page woodcut above described, and, instead of it, another embodying the same idea, but in quite a different way, has been printed on the verso of the title. Some have been added, especially in the eighth book, representing monsters,* the effects of hail and of lightning, an earthquake, and so on,

^{*} One of these is a creature of one leg, whose foot was so big that if he lay down on his back on a hot day and held it up, it protected him from the sun, like a parasol. There is a picture of the phenomenon. He was heard of and depicted by Sir John Maundeville, and he reappears in Thomas Johnson's Cornucopia (sig. D 4v.), who has drawn largely from these old marvel-mongers. The picture of this abnormality which is given in the Margarita, 1517, sig. D 1r., will be found in The Voiage and Travaile of Sir John Mauniciville, Kt., edited by J. O. Halliwell, London, 1839, p. 156.

and two or three have been altered. In this edition the index is repeated, and at the end of it is a small woodcut of the printer's device. Then follow the author's address to the student and the congratulatory odes, except that by Volzius, which is omitted, and the work concludes with the colophon:

Margaritam Philosophicam nouis characteribus dilucidatam, industria sua, ac ere proprio Michael Furterius impssit Basilee. An no. 1517 die vero. 5.

In every respect this is a very interesting and attractive work. It is contemporary with the *Lucidarius* of Honorius described on a former occasion,* goes over the same ground, but much more minutely and systematically, and is as good a survey of the amount of knowledge and speculation, of the method of instruction by question and answer, of the extent of the field cultivated and the way of cultivating it, at the end of the fifteenth century as any single book that has been quoted. It is a summary of what was thought and taught in science and philosophy about four hundred years ago, and it is therefore a work indispensable to the student of the history and progress of knowledge.

The only other edition of the work which I have seen as yet, is the Italian translation, which drops the student at once into the region of utilitarian commonplace, with nothing whatever to attract him. The large symbolic plates have all disappeared, most of the smaller ones in the text have been omitted, while of those retained the execution is in every way inferior. It is a quarto volume printed in small italics, not always distinctly, and it has none of the finish of the edition of 1517.

According to Brunet and according to the British Museum list this translation was published in 1599, but the copy which I have is dated 1600, and was printed at Venice by Jacomo Antonio Somascho. The translation was made by Giovan Paolo Gallucci, and there are included in the volume not only the *Margarita Filosofica* itself, but the additions made to it by Oronce Finé,

^{*} Trans. Archaol. Soc. Glasgow, 1883, II, p. 186.

the mathematician, the teacher and friend of Mizaldus, and supplementary matter drawn from other sources. These additions are half as large as the original work and comprise minute instructions on arithmetic, practical music, architecture, drawing and perspective, the construction of an astrolabe, &c., &c., adding doubtless to the value of the book as a vehicle of instruction, but detracting somewhat from its antique character.

The Margarita Philosophica is a very rare book in all its forms, and I regret not having been able to examine the copies in the British Museum and elsewhere. I hope, however, to have an early opportunity of doing so and of giving a more comprehensive account of the editions of this work, so important for the history of science and learning at the beginning of the sixteenth century.

A very rare and choice natural history collection, contemporary with the preceding, was printed at Paris, by Kerver, in 1504. Besides that edition Brunet* enumerates other six, printed respectively by Le Noir, without date, by Treperel in 1510, by Le Noir in 1524, by Treperel in 1527, and by Arnoullet in 1529 and 1534, so that it must have been a popular book. The copy I have seen is of the 1527 edition. It is a little black letter quarto, with a few rude woodcuts. The title is printed in alternate red and black lines, and the lower half of the page is occupied with a vignette of what seems intended to represent the universe, or cosmos. The title begins: Cest le secret de lhystoire naturelle côtenant les merueilles et choses memorables du monde. At the end of the title, in red, are the figures xxvii., which some copies have and others want. They denote the number of sheets the volume contains. On the reverse of the title is a large woodcut of a general, or king on horseback with troops. Then come alphabetical indices of the countries described, and of the remarkable things recounted, followed by the text. On the reverse of f. cv. is the colophon:

Icy prêt fin le liure moult excellent et recreatif appelle le liure des merueilles du monde & des choses memorables a plusieurs incogneues Nouuellement imprime a Paris pour Jehan treperel Demourant a paris en la rue neusue nostre dame a lenseigne de lescu de frace. Le. xvii. iour du moys daoust. Mil. v. c. et xxvii.

There ought to be another leaf, but whether it is blank, or whether it contains

^{*} Manuel, Paris, 1864, V. col. 255.

a device or a register, I do not know, as it is wanting in the copy I have examined. The book has signatures and the leaves are numbered as well.

The matter is taken from Pliny, Solinus, Herodotus, Gervasius and others, In the first half of the book the matter is arranged alphabetically by countries. and under each are collected the memorable things related by the said authors. The last half deals with natural history. This is the only treatise of the kind I have met with arranged geographically. Every page is replete with wonders, to the enjoyment of which it is best for the reader to resign himself without any carping or questioning. There is no mention of the compiler but one ought to be grateful to him for his labours. Brunet, however, as a wise and matter-of-fact bibliographer, has a different estimate of the work, and says that it is "plus curieux qu' utile." If it be so, it is just like Brunet's estimate of it.

Under the title Cælum Philosophorum, sive de Secretis Natura Liber, Philip Ulstad published a work in the sixteenth century. Watt cites an edition dated 1525, but the earliest I have examined is in the British Museum and is of the following year. Of the author nothing is recorded. He was a physician and wrote a little tract on the plague, printed at Basel, in 1526, by Cammerlander. On the title-page of the Cælum he is called "Patricius Nierenbergensis."

The heaven disclosed to philosophers—the grand accomplishment of all their desires—is the knowledge of the secret powers of nature in healing disease. These powers, wrapped up in plants and minerals were brought to light by the art of chemistry—as understood at the beginning of the sixteenth century—and more particularly by the operation of distillation. Notwith-standing its florid title, therefore, it is nothing else than a treatise on that important chemical process. It was a successful book and was frequently printed. There were editions in 1526 and 1528 in small folio, by Grüninger at Strassburg, another, without place or date, uniform with the preceding, one in 1535 in folio, by Cammerlander at Strassburg, and others in folio and octavo at Strassburg, Paris, Lyons and Treves. It was translated also into French and German; an edition in the latter language appearing in 1551, at Franckfurt, in small folio, and other editions in 8vo at Dresden and Strassburg. All these editions are illustrated with woodcuts of the retorts, stills, flasks,

receivers, furnaces, which the old chemists and pharmacists employed in great and even grotesque variety of form,

Whether or not it was translated into English is doubtful, but if it was, I do not know that it was ever printed. John Dave, the printer, in his address to the reader prefixed to Morwyng's translation of the Treasure of Evonymus. promises that because in that work frequent reference is made to Ulstadius and Brunswick, therefore he will also publish them.* That was in 1559; but as a matter of fact Brunswick's book had been translated into English and printed in small folio with illustrations identical with those in Gruninger's early editions of Ulstad, by Lawrence Andrewe at London in 1527.† Perhaps Daye was not aware of this fact, or perhaps he meant simply to reprint it, but as for Ulstad's Cælum Philosophorum, the translation, so far as I know, would have had to be made. But it never was done; at any rate there is no mention of any such work having been printed by Daye or any one else. It is not impossible, however, that a manuscript of the translation exists in the British Museum, Bodleian or else-This is a question to which I may recur on some future occasion in dealing with the bibliography of the book in greater detail, an attention of which its existence for two hundred years is not undeserving. There is always a certain amount of profit to be derived from the careful examination of a book, when its vitality has been vigorous enough to carry it through some twenty editions during so long a period.

A treatise by a certain Raoul du Mont Verd was formerly alluded to.‡ Brunet§ quotes six editions: Paris, 1531; Lyons, 1538; Lyons, no date; Poitiers, about 1544; Lyons, 1586, and Rouen, 1609. I have not seen any of these, but I have met with two not known to Brunet.

^{*} I have quoted the passage below for a different purpose.

[†] It is called: The vertuose boke of Distyllacyon of the water: of all maner of Herber, with the fygures of the styllatoryes, first made . . . by . . . Master Sherom bruynswyke. . and the title is printed in sed and black. This is a very fine bank.

^{*} Trans. Archeol. Sec. Glaszew, 1883, IL p. 260.

[§] Manuel, Paris, 1862, IIL col. 1874. Graence (Tricor, Drewle, 1863, IV. p. 595) adds nothing to Brunet's list.

Q Les fleurs et Secretz de Medecine: contenants plusieurs Remedes, et Receptes: a la conservation de la sante du corps humain. Et contre toutes maladies: comme de Peste, Fiebures: Pleuresies: Cathertes: Grauelles: ee autres semblables. Jadis faict et enuoye a Artaxerxes: Roy des Perses par Ipocras medecin tressubtil. Et depuis traduyt de latin en vulgaire Francois, par maistre Raoult de môt Vert. Et presentemêt recogneu par maistre Ancelme Juliani: docteur en medecine, en Luniversite de Montpellier. 1547.

On les vend a Paris, en la rue Neufue nostre Dame : a lenseigne sainct Nicolas.

This is a small 8vo, printed in a well marked gothic type; the title is in black and red. The first twelve leaves contain the title and table of contents, and the text is contained in signatures B to m in 8, and n in 4. The leaves are numbered as well, but in an irregular fashion, for the first sheet is paged i. to xvi., but after that the leaves are numbered xvii. to lxxxxix. inaccurately in many instances. On the reverse of leaf lxxxxix. is the colophon:

Cy finent les Fleurs et secretz de medecine.
Nouuellement imprimez a Paris: pour
Pierre Sergent: libraire demourant en la rue Neufue nostre
Dame: a lenseigne
sainct Nicolas.

Then the last leaf, not numbered, contains the device: a dove perched on a tree, with a serpent projected in a ring upon it, within a scroll border, on which are the words: Estote Prvdentes Sicvt Serpentes Et Simplices Sicvt Colombe.

The receipts have been gathered out of the writings of the old physicians and are arranged under such heads as: the veins and their significance for blood-letting, the physic of the months, properties of plants, medical secrets and cures, and miscellaneous receipts. There is a brief astrology for shepherds, with special reference to the meaning of thunder in the successive months of the year; a chapter on comets, and what they portend in the different signs of the zodiac, with quaint woodcuts of the signs; and then comes a singular dissertation on the magnitude of the heavens, and the different planets, and the sun and moon, and on the region called limbus and that called hell, of which the author draws a most harrowing picture, far more distressing than that of Reisch. It is a place, he says:

calligineulx, obscur, nubileux, sulphureic que, horrible, infect, puant, fetulant, et tenebreulx, enuenime de neuf especes de feu . . . En telle prison plaine de douleur, de langueur et de toutes diuerses sortes de tourmens a iamais sans fin seront tourmentez les malheureux oppiniastres et miserables lhutheriens, auecques tous ceulx qui ont blaspheme et regnie le nom de Dieu, & qui nont pas garde ses sainctz commandemens.

In addition to these invaluable and authentic topographical details, there are sections upon subjects with which all are more or less familiar, but which many people have a desire to see in print, and which are those discussed by Albertus Magnus, and Michael Scotus, and Caspar Nigrinus.

As a mere specimen of a French book of the earlier half of the sixteenth century, and as revealing also the current instruction on a variety of topics, Raoul's collection is quite fascinating. In Brunet's eyes, however, this book is no better than the one above described. He says that it is rare, "mais aujourd' hui sans utilité." It is certainly rare. But, sans utilité! a book that tells us about limbus and hell, Sans utilité! To Brunet, may be; but he should have considered that there might be some even to-day who had not his opportunities of becoming acquainted with those parts, and that to them a trustworthy guide-book, such as this, would be of real service.

The other copy has the following title:

Les Flevrs Et Secrets De Medecine, Ov Est Traicté De Plvsievrs Receptes, Et remedes conseruatifs pour le corps humain, contre toutes maladies. Recueilly par maistre Raoul du mont Verd, Docteur en Medecine. Nouuellement reueus & corrigez.

A Roven, Chez Iean Osmont, dans la Court du Palais. 1602.

This is a common-place shabby production, got up for cheap circulation, from which has been cut out all about the comets, and the size of the heavens and the sun, and the future habitat of stiff-necked Lutherans. I presume it is an earlier issue of the Rouen, 1609 edition, mentioned by Brunet. Had Brunet found fault with this edition, one might have tried to agree with him. The credulities of 1547, however unlike those of Brunet's day, set forth appropriately in an ornate little black-letter volume, are attractive and acceptable, inasmuch as both book and beliefs are according to the fashion and the time; but the same notions, seeking recognition for their utility alone, reprinted sixty years later, in staring roman type on a graceless page, have their untimeous absurdity

so offensively displayed that it is hard to realize that the contents of the two books are the same, and that externals have so distinct an influence on essentials.

Among the editions, described in previous parts of these notes, of Gesner's treatise of secret remedies or work on distillation, better known under the title of Evonymi Thesaurus, there are two of quite special value now to be included. One is a copy of an edition, not hitherto mentioned by any authority, and not existing in any catalogue so far as I have observed. It was printed at Lyons by Balthazar Arnoullet in 1554, a year earlier than the edition or editions by the same printer already referred to.* Both of these, it may be remembered, have Arnoullet's name in the colophon, but while one has Arnoullet's name and device also on the title page, the other bears the name and device of Antonius Vincentius. Otherwise the books are identical. From Arnoullet's edition of 1554, however, they differ throughout, proving that, when this edition had been printed off, the type was distributed and was set up anew for the issues of 1555. In them a smaller capital letter is used for the running title of each page, cui is altered into quem in the title, the index is placed in a different part of the book, and various minor typographical changes are made through-More evidence this, if it were wanted, of the great activity of the Lyons printers in the sixteenth century in promptly reproducing any book that was thought likely to be much in demand. But the importance of this issue does not depend merely on its rarity, or on its being prior to the other two, but rather on its date bringing it into competition with the Zurich edition of 1554, and raising thereby the question which edition of the original Arnoullet copied, and whether or not this is the first of his printing, If the Zurich edition of 1554, which is the earliest one mentioned by all the bibliographers, had been the first, one might have credited Arnoullet with great expedition for having his reprint out in the same year as the original. It is more likely however that he worked upon the 1552 edition,† and was able to have his reprint out as soon as the second edition of the original was produced at Zurich. So far as I have examined the three copies, Zurich 1552 and 1554,

^{*} Trans. Archicol, Soc. Glasgow (N.S.), 1886, I. p. 218.

[†] Trans. Archicol, Soc. Glasgow (N.S.), 1886, I. p. 217.

and Lyons 1554, there is nothing to indicate from which the last was printed. Possibly very minute comparison of the text might give a clue, such as the reproduction of an erratum, or some other variation, but the only obvious one is the title page, which in the Lyons edition is taken, so far as it goes, from the edition of 1552, and not from that of 1554, which differs widely from its predecessor. Arnoullet, however, is careful to omit the words nunc primum in lucem editus, which are blindly repeated in Froschover's undated edition.

One point of difference in these three Lyons editions as compared with the originals is the number of illustrations. In the latter there are some pictures of furnaces and distilling apparatus, whereas in the Lyons issues, these are not only more numerous, but there are besides pictures of the plants which are to be distilled for the production of different kinds of "waters" and remedies. These editions claim on the title page to have an additional number of illustrations, but there is nothing to indicate where they came from or if they were drawn expressly for the work, nor is there any answer to the question what was the date of the first Lyons reprint. If Arnoullet had the 1552 edition before him there may be a reprint of 1553 or even of 1552. I know of none such and have seen no hint of their existence, so it is justifiable to infer that this edition of 1554 was the first. There is also the possibility that a different Lyons printer may have produced another edition in 1554. Indeed the printing eccentricities of the place are so peculiar, that I personally should not be surprised if within 1552-1554 more than one reprint of Gesner's book had been brought out at Lyons.

The other important copy is of the first edition of the translation into English. The title runs thus:

The Treasure of | Evonymvs, | conteyninge the vvonderfull hid se- | cretes of nature, touchinge the most apte formes | to prepare and destyl Medicines, for the conser- | uation of helth: as Quintessēce, Aurum Potabile, | Hippocras, Aromatical wynes, Balmes, Oyles | Perfumes, garnishyng waters, and other mani- | fold excellent confections. Wherunto are ioyned | the formes of sondry apt Fornaces, and ve- | ssels, required in this art. Translated | (with great diligence, & laboure) | out of Latin, by Peter Mor- | vvyng felow of Magda- | line Colleadge in | Oxford. |

Imprinted at London | by Iohn Daie, dvvelling ouer | Aldersgate, beneath Saint | Martines. | Cum priuilegio ad imprimendum | solum. |

This is a small 4to, printed in massive black letter. There are 20 preliminary pages, unnumbered, containing the title, John Daye's address to the reader, the author's preface, list of authorities, table of chapters, and the Stationers' arms or device. The text occupies 408 numbered pages. There is no index. There is no date in the book except what is at the end of Daye's address to the reader: At London the. ii. of May. 1559, and this is usually given as the date of the edition. There are ornamental capitals, woodcuts of the plants described, and figures of furnaces, retorts, receivers, and other vessels employed in the operations.

The first English edition is unquestionably of very great rarity, but as this particular copy has on its title-page the well-known signature of W. Herbert, the bibliographer, it is the original historical copy, and in this respect is unique.*

The second edition of 1565, formerly mentioned,† is an inferior reprint. The type is coarser and clumsier and the impression is not so sharp. This is another example of the first edition of a book being typographically superior to those of it which appeared afterwards. The only advantage which the later edition has lies in its index.

Another copy of Alexis which I have seen demands a few words, for it re-opens the question as to the language in which that work was originally printed. This is the title-page:

D. Alexii Pedemontani De Secretis Libri Sex Mira Qvadam Rervm Varietate Referti ex Italico in latinum sermonē nunc primum translati. Per Ioannem Iacobum weckerum, medicum

Basileae Anno M. D. LIX.

^{*} Ames did not know this book, and Herbert was the first to describe it, Typographical Antiquities, London, 1785, I. p. 630. His description is full, but he does not say how many preliminary pages there are, and he makes one curious mistake in his account. Daye in his preface says: "And because thauthor . . . do in many places of this his work, send the "Reader vnto Philippe VIstadius & Brunsvvick: therefore I will . . . also publish them, "&c." Herbert's version runs: "And because thauthor . . . do . . . send the Reader "vnto Philippe VI stadius & Brunsvvick: therefore, &c." The origin of the misprint is patent, but it is not so easy to explain how Dibdin repeated it (Typ. Antiq., Lond., 1819, vol. IV. p. 71) without noticing that it is mere nonsense as it stands. Ulstad's work has been referred to above.

[†] Trans. Archaol. Soc. Glasgow, 1883, II. p. 188.

This is the first edition of Wecker's translation, and I have no doubt that it was printed by Peter Perna. It forms a neat little octavo, and contains the first part in six books. Prefixed are an epistle by Wecker to Abbot Caspar Muller, dated Basel, July 7, 1559, and Alexis' preface to the reader telling how he came to write the book. In his epistle, Wecker explains that he translated the work, partly because he thought its contents would be serviceable, partly to keep up his knowledge and exercise himself in Italian, for, as he says, what we do not practice we soon forget. The rest of the epistle is devoted to a brief outline of the contents of the different books. This edition sold rapidly and a second was called for within a year. It was just mentioned formerly,* but it is now worth while giving the title.

Alexii Pedemontani De Secretis Libri, Mira quadam rerum varietate vtilitateq; referti, longe castigatiores & ampliores quam priore editione.

Num sex prioribus, septimus accesit ex eiusdem authoris appendice factus: omnes ex Italico sermone in Latinum conuersi.

Io. Iacobo weckero Basiliensi Medico interpete.
Basileae, Apvd Petrvm Pernam M.D.LX.

This is necessarily a thicker volume, but it is not so nicely printed as the previous one. Prefixed is an epistle by Wecker to Höcklin, Rust, and other councillors of Mömpelgard, which is different from that in the first edition. Wecker says that when he came back from Italy, the weather was so hot that he could not do any serious work, but not to be absolutely idle, he thought he might translate some useful Italian book. This would both prevent him forgetting the language he had acquired during some years' residence in Italy and be helpful to those unacquainted with it. Alexis' six books had just then been published in Italian, and the contents which were generally practical as well as medical, interested him doubly, and as the book suited his purpose he translated it. When the translatiaton was seen by his friends they urged him to publish it and he did so. It was well received, and when he was aware of this he revised it, added another book which the author had in the meantime published and brought it out afresh. This letter is dated Basel, July 20, 1560, just a year after the other.

^{*} Trans. Archaol. Soc. Glasgow, 1883, II. p. 251.

Three years later came another edition, also mentioned by me before,* but which may now be described more fully.

D. Alexii Pedemontani De Secretis Libri Septem, A Ioan. Iacobo Veckero Doctore Medico, ex Italico sermone in Latinum conuersi, & multis bonis Secretis aucti. Accessit hac editione euisdem weckeri opera, octauus de artificioais uinis liber.

Basileae. Apvd Petrym Pernam M.D.LXIII.

Wecker's epistle dated from Basel, August 1, 1563, is addressed to Nicolaus a Cruce, French councillor and ambassador to the Swiss. He says that about three years before he translated seven books of secrets from Italian into Latin, and the translation had been so well received that he thought it worth his trouble to revise the work again and add a number of secrets of his own. He then gives a description of the contents of the books and winds up with some complimentary reasons for dedicating this edition to the said Nicolaus a Cruce. This is, therefore, the third edition of Wecker's translation of Alexis.

On a previous occasion I had to discuss the history of this collection of secrets, and to consider the difficulties which arise in connection with the date and language of the first edition. In the epistle to the revised second Italian edition of 1557, the author himself says that the work was originally written in Latin and was hurried off without revision to Venice to be printed, but in a few months later he heard that a translation into Italian had been published. This sold rapidly and was going to be reprinted, when the author consented to revise it and correct the mistakes which he had detected in the translation. due as he thought to original errors of his own, as well as to misunderstandings on the part of the translator. The question then comes to be, was the work printed originally in Latin in 1556, or was the first edition of the book in Italian, the translation having been made from the original manuscript. Formerly I was unable from want of evidence to accept either alternative, but with the new facts and reconsideration I am inclined now to believe that there was no original Latin edition, but that the Italian translation was the first form in which the book was published. If we are to believe the author, this was in 1556; if we are to believe Brunet, it was in 1555. In support of the

^{*} Trans. Archaol. Soc. Glasgow, 1883, II. p. 251.

[†] Trans. Archaol. Soc. Glasgow (N.S.), 1886, I. pp. 218-220.

Italian translation being the original published form is the fact that there is no mention that I can find of a prior Latin edition. It must be admitted, however, that until a copy of this first Italian edition has been examined there is still some uncertainty. So far as I can see it is only from it that we can ascertain precisely whether it is the first or not.

Confirmation of the preceding is derived from the three copies of Alexis just mentioned. For from the epistles it is obvious that Wecker was aware only of the Italian edition of Alexis' work, and, as he seems to have been in Italy at the time the book came out, he would surely never have been at the trouble to retranslate into Latin the Italian translation of a work which had appeared originally in Latin but a few months before. He could not have failed to know whether the original was in Latin or not. Wecker, however, says nothing about it, nor does he allude to Alexis' second letter published in 1557, which tells how Alexis came to revise the Italian version. It is probable, therefore, as has just been said, that although Alexis composed the work in Latin, it was not printed in that language, but was translated from his manuscript into Italian, in which it was first published.. If this be so, it does away with the difficulties discussed in a preceding part of these notes;* it accounts for no copy of an original Latin edition being mentioned, and for Wecker's claiming his translation into Latin to be the first.

In six or seven years more, Wecker, as has been already narrated, made a German translation at the instance of several friends. The preface is dated Colmar, February 15, 1569, and the book is dated 1570. It was reprinted in 1573, with the original preface. Although the 1570 edition contains only six books, there are differences between it and Wecker's own Latin translation of 1559.

That Alexis' book was one of the popular treatises during at least two centuries would hardly require repetition here, if it were not that now and again one comes across fresh evidence of the fact. A kind of pocket edition of it printed at Paris in 1573† and in 1576‡ has been spoken about already.

^{*} Trans. Archaol. Soc. Glasgow (N.S.), 1886, I. p. 219.

^{† &}quot;Some early treatises on Technological Chemistry," § 2. Nos. 10 and 13, in the Proceedings of the Philosophical Society of Glasgow, 1887-88, XIX. pp. 144-145.

[‡] Trans. Archael. Soc. Glasgow (N.S.), 1886, I. p. 224.

A reprint precisely in the same style appeared at Rouen:

Les | Secrets | Dv Seignevi | Alexis Piemon- | tois. | Reueu, corrigé, & augmenté d'une | infinité de rares Secrets. |

Derniere Edition. | A Roven, | De l'Imprimerie de Robert de | Rovves, sus la Renelle, pres | les Lyons couronnez. | 1614. |

This is a 16mo, of 911 pages, and 81 pages of index, and corresponds page for page with the Paris edition. The printer, however, has dropped pp. 871-4, containing the introductory epistle to the section on "Oecoïatrie;" and he has done so deliberately, for while there is a break in the pagination, the signatures I ii iij and I ii iiij run on continuously. There is nothing to remark about this reprint. Only, as it contains (pp. 760-846) the "receipts from divers authors," which form a translation of the Kunstboeck of Andriessen, it must be added to the editions of the translation which I have given elsewhere.* This copy was got after the list of these was printed.

Chronology now brings us to some English books, printed towards the end of the sixteenth and beginning of the seventeenth centuries. I have had occasion several times to refer to similar contemporary works, attractive, as illustrating both the typography and the science of the time. The series now under consideration contains not less important volumes than those already quoted.

First among these are works by Fioravanti, whose name has been before us more than once.† Leonardo Fioravanti was a native of Bologna and was born about the beginning of the 16th century. He became a physician, practised in Palermo from 1548 to 1550, sailed to Africa with the Spanish fleet, returned to Naples in 1555, went to Rome, Venice, again returned to Bologna, where he was made doctor and chevalier, and died there September 4, 1588. Between the years 1564-1582 he published a number of works, lists of which are given by various writers.‡

A savage verdict was passed upon him by Theile, so savage indeed as to

^{*} See note † preceding page.

[†] Trans. Archaol. Soc. Glasgow, 1883, II. p. 191, p. 251; (N.S.) 1886, I. p. 225.

[‡] Fr. Wilh. Theile in Ersch and Gruber's Allgemeine Encyklopädie, Leipzig, 1846, Sect. I. Th. xliv. p. 292. Hester, Preface to the translation of A Short Discours uppon Chirurgerie, 1580. Manget, Bibliotheca Scriptorum Medicorum, Geneva, 1731, I. ii. p. 287. Chaumeton in Biographie Universelle, Paris, 1856, XIV. p. 140.

seem disproportioned to his demerits. He says that "he succeeded by "shameless bragging and swagger in cheating the public and at the same time "making himself a name in medical literature. After the fashion of the time "he puffed several of his own prescriptions of which the very complex Balsamus "Fioravanti has survived until recently, and has in the form of vapour been " 'used for weakness of the eyes." He then attacks his writings and says "that "they are without the smallest value and yet they went through from three to "five editions each and some of them were translated into Latin, German, "French and English." Even supposing that that were all strictly correct, it would be hardly worth while in the present state of medicine and other arts and sciences to say of such writings as Fioravanti's, three hundred years old, that they are "without the smallest value," or to lose one's temper over the author having been a successful empiric, just as if there were no such books or persons at the present day. And if it was the fashion of the time to puff, why blame Fioravanti in particular for puffing? It is curious how a historian will not accept immutable byegone events simply as such, and leave them to teach their own moral. In this particular case was Fioravanti a quack? One may with all confidence assert that his medicines could not do what he said they could, but did Fioravanti himself disbelieve it? One wishes Theile had given some proof, other than his mere authority, for the character of Fioravanti he wishes his readers to accept.

Pretty much to the same effect is the opinion of Chaumeton. He says that his writings contain the bragging which he put in his discourses and every page bears traces of a ridiculous vanity; that he describes the successful results of unheard of surgical operations, and the virtues of his medicines; that he was an empiric if not a quack; that his works received more consideration than would have been given to those of a modest practitioner; that with mediocre ability and boundless boasting he acquired a brilliant reputation which he retained till his death. From all this—if correct—one may conclude that Fioravanti was a very clever fellow, who possessed at least one secret of success: to constrain or persuade the age he lived in to take him at his own valuation.

But, worthless or not, his books of secrets exist, and they therefore must be mentioned. One is the translation of *La Chivurgia*:

- A Short Discovrs Of the excellent Doctour and Knight, maister Leonardo Phioravanti Bolognese vppon Chirurgerie. With a declaration of many thinges, necessarie to be knowne, neuer written before in this order: whervnto is added a number of notable secretes, found out by the saide Author,
- ¶ Translated out of Italyan into English, by Iohn Hester, Practicioner in the arte of Distillation.

I Imprinted at London by Thomas East, 1580.

This is a small black letter quarto, of 8 preliminary and 64 numbered leaves. The preliminary leaves contain the title, with the arms of Edward de Vere, Earl of Oxford, on the reverse, Hester's dedication to the said Earl, address to the reader, at the close of which is a list of Fioravanti's works, table of contents and a brief statement of the reason of the superiority of modern to ancient physic and chirurgery. The numbered leaves contain the text.

On the verso of the last leaf are the printer's arms and his motto: Mievlx. vavlt. movrir. en. vertv. qve. vivre. en. honcte. and the colophon: ¶ Jmprinted at London by Thomas East. 1580. On the title-page is the printer's crest of a black horse, with a white crescent on the left shoulder, and the motto as above.

This is a collection of remarkable surgical cures effected by means of the author's balsams and syrups and other concoctions. It is needless to criticize what he says. Towards the end he gives the preparation of certain substances involving some chemical knowledge. The methods yielded the products undoubtedly, but the knowledge of them was quite empirical. Among the substances prepared was chloride of lead called *lac Virginis*, got by mixing a solution of salt, sal gemme, with one of lead acetate. When this is done, then, as Fioravanti says, "thou shalt see a straunge thing. For as soone as they are mixed together, they will tourne to a white Unguent like Ceruse or white lead." This is an early notice of the compound, though it must have been known earlier.

Hester edited the translation of the Regimente de la peste under the title: The ioyful Iuel. It was printed in 4to at London by W. Wright in 1579, and is mentioned among Fioravanti's books in the British Museum, but I have not examined it.

A third work by the same author is the following:

A Compendium of the rationall Secretes, of the worthie Knight and moste excellent Doctour of Phisicke and Chirurgerie, Leonardo Phiorauante Bolognese, deuided into three Books.

In the first is shewed many secretes apperteining vnto Phisicke.

In the seconde is shewed many secretes apperteining vnto Chirurgerie, with their

In the third is shewed divers compositions, apperteining bothe to Phisicke and Chirurgerie, with the hidden vertues of sondrie vegitables, animalles, and mineralls, and proued wel by this Authour, hetherto neuer set out before.

¶ Imprinted at London by Jhon Kyngston, for George Pen, and I. H. 1582.

This is a charming little black letter octavo, of great rarity, executed by the printer of the first English edition of the Secrets of Alexis. It was overlooked by Ames amongst Kingston's books, but it was recorded by Herbert.*

As it is the first edition of the translation it of course accompanies the first edition of the Italian, 1564, already described,† which is of equal rarity. The translator is again John Hester, who dedicates the book to "Maister Richard Garth Esquire," in a short discourse on the mutability and progressiveness of the arts.

A few years later, in 1596, Hester issued in a small 4to volume, printed at London by Valentine Sims, translations of Paracelsus' hundred and foure-teene experiments, Works by Penotus, Secrets of Hollandus and the Anti-dotarie for Gunneshot of Quercetanus. This collection, together with Fioravanti's Chirurgery and Rational Secrets, and some other tracts, was reprinted in a small 4to volume, in 1652, because "the Books were very scarce, and out of Print, much desired by Ingenuous Practitioners in Physick." This reprint was the only English edition of Fioravanti that I was able to bring forward, when describing the Italian edition of the Secrets of 1571, and the French and German versions. §

^{*} Typographical Antiquities, London, 1786, II. p. 841; Dibdin, Typographical Antiquities, London, 1819, IV. p. 480.

[†] Trans. Archaol. Soc. Glasgow (N. S.), 1886, I. p. 225.

[†] Three Exact Pieces. . . London, 1652. W. J.'s Epistle to the Reader, sig. C 1 recto.

[§] Trans. Archaol. Soc. Glasgow, 1883, II. p. 191. See also my Bibliographia Paracelsica, 1885. Part II. Nos. 86 and 105.

The year 1596 is a notable one in the present chronological review, for during the course of it quite a number of receipt-books appeared.

A description has already been given of Johnson's *Cornucopiæ* published at London in 1595. I can now show a copy identical in every respect, but dated 1596.

The fourth part of these notes contained an account of *The Englishman's Treasure*, London, 1626 (1696). At the same time the fact was recorded that it had been published as early as 1596. I have now got a copy of that edition, which was printed at London by Thomas Creede in 1596. It contains Vicary's *Anatomie*, "secretes of chirurgerie," a good many of which are taken direct from Fioravanti without ackowledgment, and Turner's *Treasure of the English Bathes*, gathered and set forth by William Bremer. It seems to be the first edition of Bremer's Collection, and agrees with the edition of 1626 (1696) as far as it goes, but the later edition has a second part quite as bulky as the original, containing receipts for making waters, medicines, ointments, plasters for all sorts of maladies, and it concludes with "A Medicine for the Plague, for sicknesse of the Soule," written in the same allegorical style as is used in the *Booke of Prittie Conceites*, to be mentioned presently.

There was also an edition of *The Treasurie of hidden Secrets*, printed at London by Richard Iohnes, in 1596. This is earlier than any of the editions formerly quoted, the oldest in the British Museum having the date 1600.

This same year, 1596, there was printed at London by Thomas Purfoot, a small tract entitled: A profitable booke declaring dyners approoned remedies, to take out spotts and staines. Like its contemporary: A Booke of Secrets, London, 1596,* it was translated from the Dutch, and contains portions of the Kunstbüchlin of 1537,† which were omitted from the other. These two volumes, therefore, supplement each other and between them contain a considerable part of the Kunstbüchlin. This edition is not in the British Museum, but there are there two editions dated respectively 1583 and 1605. For details of all three editions, reference may be made to the paper on Some early Treatises

^{*} Trans. Archaol. Soc. Glasgow (N.S.), 1886, I. p. 216.

[†] Ibid., 1883, II. p. 192.

on Technological Chemistry, read to the Philosophical Society of Glasgow, January 6, 1886.*

The oldest edition of Lupton's *Thousand Notable Things* that has as yet been quoted is in the British Museum, and has the date 1601. I have now got one without date, but belonging to the year 1595 or 1596, and printed at London, by I. Roberts for Edward White, and to be sold at the little North door of l'aul's, at the sign of the Gun. The 1601 edition is a reprint.

All these tracts are printed in black letter, in small quarto, and are of the greatest rarity, considering that not one of them of the respective dates is contained in the British Museum. If to them be added the others enumerated on previous occasions, it will be obvious what a demand there must have been towards the close of the sixteenth century for books on practical arts and on natural history, a demand, it may be remarked, of which there is no recognition anywhere either in the history of the time, or of its literature.†

About the book which follows, I am not very clear. The oldest version I am acquainted with has this title:

The Booke of | prittie conceites, taken out | of Latin, Italian, French, Dutch | and Englishe. | Good for them that loue | alwaies newe conceites. |

At London | Printed for Edward White, | dwelling at the little North doore | of Paules Church at the | signe of the Gun. |

Ioyfull Newes Out of the New-found VVorlde. Wherein are declared, the rare and singuler vertues of diuers Herbs, Trees, Plantes, Oyles & Stones, with their applications, as well to the vse of Phisicke, as of Chirurgery: which being well applyed, bring such present remedie for all diseases, as may seeme altogether incredible: notwithstanding by practice found out to be true. Also the portrature of the said Hearbs, verie aptly described: Englished by John Frampton Marchant. Newly corrected as by conference with the olde copies may appeare. Whervnto are added three other bookes treating of the Bezzar stone, the herb Escuerconera, the properties of Jron and Steele in Medicine, and the benefit of Snow. London, Printed by E. Allde, by the assigne of Bonham Norton. 1596.

Earlier editions were published in 1577 and 1580, and the Spanish in 1569, 1571 and 1574.

^{*} Proceedings, Glasgow, 1887-88, XIX. pp. 126-159.

[†] Still another 1596 book, "wherein are discovered great secrets of Nature," may be mentioned. It is the revised edition of Monardus' work:

This book has no date. It contains 21 pages, printed in black letter. The title is from the British Museum copy (C 31. a. 11). It was in part reprinted as follows:

The | Book Of | Pretty Conceits: | Taken out of Latine, | French, Dutch, and English. | Very merry and very Plea- | sant, and good to be read of all | such as do delight in new and | merry Conceits. | Newly inlarged, corrected and amended. |

London, | Printed by James Flesher. |

16mo; signatures A 8, B 3. From there being a catchword: "Questions," on the verso of B 3, I suppose there must have been another leaf in signature B, containing the questions, or some of them, which are to be found in the previous edition. It is printed in black letter, and there is no date.

The title of the third copy is similar:

The | booke of pretty coceits, | taken out of Latine, French, | Dutch and English. |

Very merry and | very pleasant and g . . . | be read, of all | such as

. . . | new and merry . . | Newly in . .

This title is taken from a copy in the British Museum (1037. a. 48). It is a 16mo, printed in black letter. The title and first 16 leaves are imperfect and repaired. Signatures [A —] D 8, ff. 32 in all. No date.

This is an enlarged edition, containing more receipts and curiosities than the two preceding editions. The questions at the end for children, also, are more numerous, and answers or solutions to the problems are given in certain cases. It is very badly printed on poor paper, so that I have little doubt of its being the most recent version of the book.

This is such a silly production that the compiler acted wisely in allowing it to go on its way anonymously. It contains a few receipts that tend to a reasonable purpose but the majority are senseless. In the third version there are several conceits meant to be "swift and sententious," but the humour is too far fetched for the present day. Thus there is a receipt:

"To make a man to leaue great oathes. Drincke in the morning a good draught of the iuice of patience, with a good quantity of gratia Dei, and vse it euery day, and he will not sweare."

Even with less meaning and still less humour is another, which will show what a pretty thing man is, when he leaves off his wit. It is called:

A freendly medicine for the toothache, proued. Take a handfull of Idlenes, and as much of negligence, two handfull of ignoraunce, a little of imprudence, then take halfe a pinte of hastinesse, a pottle of presumption, a quarte of vncleanlynesse, and a gallon of extortion. Seeth all these in a pot of waste with the fire of prodigalitie, scumme them with the ladle of false chastitye and put it in a morter of periury, then take a pound of enuie, half an ounce of infidelitye, and as much of adulterye, two ounces of iniquitie, a quarter of a pound of Usurye, as muche of symonye and adulation, a pound of lechery, foure pounds of fornication. three pintes of slouthfulness. Mingle all these aforesaide with small wit in a vessell of vndiscretion, and then put it into the fore [sic, for sore] tooth, and vse it nine nightes and one daye, and thy tooth ache will weare away.

Of all medicines this is the best: Quia sepe probatum est.

No doubt; if one could get the ingredients and mingle them according to directions; but what, one is constrained to ask, does it all mean, where is the moral, and why should such a bolus be a "charm for the toothache," any more than "excellent for your broken shin," or such other dulcet disease?*

It is putting a strain on the definition, perhaps, to include the Lectiones of Johann Wolf, or Wolfius, among books of Secrets. Its name means "readings," "excerpts," or "gleanings," but these are so choice, they have been selected with so much regard to their exceptional character and to the illustration of all that is rare and secret in history, both human and natural, so many of the books enumerated in these notes have been laid under contribution, that this seventeenth century miscellany may not be refused a place among the others. Besides, the work is almost, if not altogether unknown. It very rarely occurs for sale, it is neither a bibliographer's nor a collector's book, and although it is mentioned by both Watt and Graesse, it is like a thousand others similarly recorded,—a name and no more. Even Brunet has not condescended to say whether or not it is "more curious than useful." Yet there are few books more delightful to lose oneself in. In two portentous folio volumes there is passed before the reader an endless array of other portents, prodigies, monsters, moving accidents, histories, biographies, catastrophes, everything strange, wonderful, terrible, incredible and impossible which the author could find in all literature of the previous sixteen centuries and which could be collected and arranged during the lifetime, incessantly em-

^{*} Another similar fool's bolt is in Bremer's Englishman's Treasure.

ployed, of himself and an amanuensis. Such a book can hardly be opened without advantage. A sort of museum of mis-births, showing what a number of good subjects have somehow gone wrong. And it is not description merely that the book gives us, but there are numerous woodcuts, boldly executed, which assist us in understanding the text. The title-page is decorated with a border, which is all explained afterwards. There is a portrait of the author, and there are pictures of strange events, such as the detection of Pope Joan, of towns overthrown by fire, of the different orders military and monkish, of monsters, like the Cracovian and Tiberian specimens, of angels good and evil, of portents, the prognostications of Paracelsus and a host of other marvels. The title, however, furnishes so good a summary of the contents that it may be reproduced just as it stands:

Iohan VVolsii I.C. Lectionvm Memorabilivm et Reconditarvm Centenarii XVI. Habet Hic Lector Doctorvm Ecclesiæ, Vatum, Politicorum, Philosophorum, Historicorum, aliorumq; sapientum & eruditorum pia, grauia, mira, arcana, & stupenda; iucunda simul & vtilia, dicta, scripta, atq; facta; Vaticinia item, vota, omina, mysteria, Hieroglyphica, miracula, visiones, antiquitates, monumenta, testimonia, exempla virtutū, vitiorum, abusuum; typos insuper, picturas, atq; imagines: Sed Et Ipsivs Coeli Ac Natvrae Horrenda Signa, Ostenta, Monstra, atq; Portenta: His interiuncti sunt quoq; omnes Sacri prophaniq; Ordines: Ex Qvibvs Omnibvs Cvm Præteriti Status in Ecclesia, Republica, & communi vita consideratio; tum impendentium euentuum, ac indies magis magisq; ingrauescentium malorum præsagitio; sed & multorum abstrusorum hactenus desideratorum reuelatio ob oculos perspicuè ponitur.

Lauingæ sumtibus Autoris impressit Leonhardus Rheinmichel Typogr. Palatinus, anno 1600.

This work forms two large closely-printed folio volumes, of which volume I. contains 36 pages of introductory matter, and 1012 pages of text; volume II. 20 preliminary pages, and 1074 of text. The work is not complete without the *Index*, compiled by Johann Jacob Linsius, called Hagendorn, and printed at Lauingen in 1608. This index is sometimes wanting.

The author of this big piece of work was born in 1537, studied at Strassburg, Bourges, Tübingen and Wittenberg, became a councillor of the Elector Palatine, was sent on embassies, travelled widely, passed a very active public life and carried through important and delicate affairs, and when he retired from service settled at Heilbronn where he died in 1600, in his 63rd year.

During the whole of his life he had laboured unremittingly at his book, and he gathered the material for it from an army of authors. This work, correctly described by Linsius as "of great and almost incredible labour," he toiled at to the last, determined evidently to finish it, and it was published the very year of his death. From the accounts* given of him, Wolfius must have been a man of great and varied accomplishments, of enormous erudition, of estimable character, entertaining both from reading and experience, of the most wonderful perseverance and rarest diligence and determination. He was remarkable even at a time when universal knowledge and reading were quite common.

To the books upon cosmetics and personal decoration can now be added one which I could just name formerly.† It is the work of Hugh Plat:

Delightes for Ladies, to adorne their Persons, Tables, closets, and distillatories:

With Beauties, banquets, perfumes and waters. Reade, practise, and censure.

At London, Printed by Peter Short. 1602.

This, which is in the British Museum (1035. a. 37), is a minute volume in 24mo, poorly printed, and with would-be ornamental borders round each page, some containing the initials E. R. There is no pagination, but signatures A to H in twelves, whereof H 12 is blank. It went through a very great number of reprints in the same size and style; those of 1608, 1615, 1632, 1636, 1647, 1651, 1654, are to be found in the British Museum Catalogue. Lowndes mentions besides editions of 1609, 1611, 1617, 1628. I have examined the editions of 1602 and 1654, and have compared them with those of 1603 and 1640, which are not in the Museum, and are not mentioned by Lowndes. The former, dated 1603, corresponds with the edition of the previous year, having been also printed by Peter Short. The latter, of 1640, was printed at London, by Robert Young. It is a reproduction, almost page for page, of the 1602 or 1603 edition. Like them it has no pagination, but signatures

^{*} The best account of Wolfius is given by Melchior Adam, Vita Germanorum Jureconsultorum, Haidelbergæ, 1620, pp. 341-347. There is a notice by Freher, Theatrum Virorum Eruditione Clarorum, Noribergæ, 1688, p. 951; and his name is mentioned by Jöcher, Allgemeines Gelehrten-Lexicon, Leipzig. 1751, IV. col. 2051.

[†] Trans. Archael. Soc, Glasgow, 1883, II. p. 250.

A to H in twelves, H 12 being blank; the ornamentation round each page is different from that in the earlier copies. Of date 1647 there is a copy in the British Museum, but I have here another. It has the title repeated in the usual form, and it was printed at London by James Young, some relation probably of the Robert Young just mentioned. It is a 24mo and the collation is the same as that of the others. There is no pagination, but signatures A to H in twelves, H 12 being blank. The title-page is plain, and there is no ornamentation round the pages.

The 1654 edition (British Museum, 1037. a. 29 (2)) has the same title, but was printed at London by "R. W." It is a reprint like the preceding, but it has no borders round the pages. I presume all the other editions are more or less like these, but I have not examined them in detail.*

Bound up with the copies of 1647 and 1654, and intended apparently to go along with them, is another small treatise of the same character. It is entitled:

A Closet for Ladies and Gentlewomen, or, the Art of Preserving, Conserving, and Candying. With the manner how to make divers kindes of Syrups, and all kinde of Banqueting-stuff: Also divers Soveraign-Medicines and Salves. Corrected, Amended, and much Enlarged, by adding a very useful Table thereunto. London, Printed by R. W. 1654.

This book is divided into different sections: of preserves, of candying, of pastes, of banqueting-conceits, of cordial waters, of conserves, of medicines and salves; and its contents show what a good housewife was expected to know two centuries ago. Many of the ideas and prescriptions were silly, some were wrong, but at any rate ladies and gentlewomen had plenty to do in looking after their houses, their kitchens, and their closets.

There is an edition of 1656 of the Delights for Ladies and the Closet for Ladies, but I have not seen a copy.

The reputed authoress is Lola Montès.

^{*} There is a modern book of secrets on the same subject, and, as it is ascribed to a person who practised the lessons successfully, it may be mentioned:

L'Art de la beauté, ou Secret de la toilette des dames, suivi de petites instructions aux messieurs sur l'art de fasciner. Préface et notes par H. Emile Chevalier. Paris, chez tous les libraires, 1862, in-12.

[[]Note.—The rest of this part, containing a notice of the books subsequent to 1602, will appear in the next volume.]

DIBLIOGRAPHICAL NOTES.

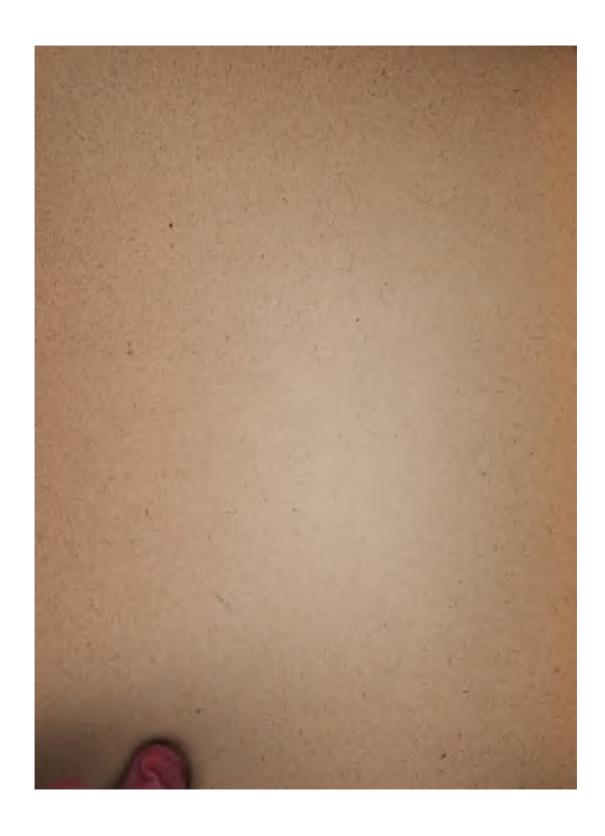
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BIBLIOGRAPHICAL NOTES

ON

HISTORIES OF INVENTIONS

AND

BOOKS OF SECRETS

PART VI

[CONCLUSION]

BY

JOHN FERGUSON, LL.D., F.S.A.
PROFESSOR OF CHEMISTRY IN THE UNIVERSITY OF GLASGOW

[Read to the Archeological Society of Glasgow January 19, 1888]

GLASGOW STRATHERN & FREEMAN, 145 WEST NILE STREET 1890 (100 Copies Reprinted.)

BIBLIOGRAPHICAL NOTES ON HISTORIES OF INVENTIONS AND BOOKS OF SECRETS.

PART VI.

[CONCLUSION.*]

BY

JOHN FERGUSON, LL.D., F.S.A.,

PROFESSOR OF CHEMISTRY IN THE UNIVERSITY OF GLASGOW.

[Read at a Meeting of the Society held on January 19th, 1888.]

Several editions of Neri's Art of Glass have been already quoted.† Next to the original Italian of 1612, one of the rarest can now be adduced, the first edition, namely, of the English translation:

The Art of Glass, Wherein Are shown the wayes to make and colour Glass, Pastes, Enamels, Lakes, and other Curiosities. Written in Italian by Antonio Neri, and Translated into English, with some Observations on the Author. Whereunto is added an account of the Glass Drops, made by the Royal Society, meeting at Gresham College.

London, Printed by A. W. for Octavian Pulleyn, at the Sign of the Rose in St. Pauls Church-yard. MDCLXII.

This is a small 8vo, and, like the original Italian, the translation has no illustrations like what exist in the later Latin versions. The translator was Christopher Merrett, whose name does not appear on the title-page, but whose initials are appended both to the dedication to the Hon. Robert Boyle, and to the address to the reader.

^{*} For convenience of reference I have called this Part VI., although, strictly speaking, it is the second half of Part V., published in the preceding volume. Both parts were communicated to the Society at the same meeting, but the completed paper was of such a length that it was found necessary to print it in two sections. The present part contains the books subsequent to 1602.

[†] Trans. Archael. Soc. Glasgow, 1883, II. pp. 194, 251; (N.S.), 1886, I. p. 225.

This is not only a rare but it is an instructive book as well, as it gives the reader insight into how the sciences in the seventeenth century depended on the use of glass. There is no concealment or mystery in the description. Merrett's notes are very interesting; for he goes through the whole of contemporary physical science, and points out the many uses of glass, and its importance for optics, astronomy, physic, and other branches.

The account of the practical part, of the furnaces, pots, materials and reagents, of the methods for making different qualities and colours of glass, is very well done. Although glass-making was one of the most jealous of mysteries, and was one of the few mechanical arts in which a gentleman by birth could engage, there is no attempt at making trade secrets of the processes, as might have been anticipated. On the contrary, the descriptions are so clear and exact, that one can see that far more was known practically in the seventeenth century than one is inclined usually to believe, judging from the way in which most other books on science and the arts are expressed.

I happen to have got also a copy for description of the French translation.

Art de la Verrerie, De Neri, Merret et Kunckel. Auquel on a ajouté le Sol Sine Veste d'Orschall; L'Helioscopium videndi sine veste solem Chymicum; Le Sol Non Sine Veste; Le Chapitre XI. du Flora Saturnizans de Henckel, Sur la Vitrification des Végétaux; Un Mémoire sur la maniere de faire le Saffre; Le Secret des vraies Porcelaines de la Chine & de Saxe. Ouvrages ou l'on trouvera la maniere de faire le Verre & le Crystal, d'y porter des Couleurs, d'imiter les Pierres Prétieuses, de préparer & colorer les Emaux, de faire la Potasse, de Peindre sur le Verre, de préparer des Vernis, de composer des Couvertes pour les Fayances & Poteries, d'extraire la Couleur Pourpre de l'Or, de contrefaire les Rubis, de faire le Saffre, de faire & peindre les Porcelaines, &c. Traduits de l'Allemand, par M.D * * *

Λ Paris, Chez Durand, . . . M.DCC.LII.

Avec Approbation et Privilege du Roi.

This is a bulky quarto, sumptuously printed, with handsome engravings of furnaces and apparatus, and it is undoubtedly the most complete of all the editions which I have seen. It contains not only the treatise of Neri, with the prefaces and notes of Merrett and of Kunckel (Geissler's version the editor does not seem to know), but also some treatises and extracts from other works bearing upon the manufacture of glass, enamel and porcelain, and, besides,

the tracts on the controversy about the part gold takes in making ruby glass, written by Orschal, Balduin and Kunckel. It forms, therefore, a kind of cyclopædia of the older writings on glass-making.

In marked contrast to Neri's book, as far as clearness and sense are concerned, is the singular performance which follows.

Trinvm Magicvm, Siue Secretorvm Magicorvm Opvs: Continens

- 1. De Magia Naturali, Artificiofa & Superstitiosa Disquisitiones axiomaticas,
- 2 Theatrum Naturæ, præter Curam Magneticam & veterum Sophorum Sigilla & Imagines Magicas, etiam Conclusiones Physicas, Elementales, Cœlestes & Infernales exhibens.
- Oracula Zoroastris, & Mysteria Mysticæ philosophiæ, Hebræorum, Chaldæorum, Ægyptiorum, Arabum, Persarum, Græcorum, Orphicorum, Pythagoricorum & Latinorum.

Accessere Nonnulla Secreta Secretorum & Mirabilia Mundi. Editum à Cæsare Longino, Philos,

Francosvrti, Ex Officina Typographica Antonij Hummii. M.DC.XVI.

This is a little 24°, and is made up of several treatises and extracts. There is an edition of 1614* also in the British Museum [1035. a. 5 (3)] not differing in its contents from the present, and there is a later enlarged one of 1663, from which Freytag took his description. There can be no doubt about this being a collection of secrets. There is, first of all, a preface containing an explanation of the different kinds of magic, defending it against the accusation of being diabolic, and praising it for its religious character. The preface is followed by the contents, and then the tracts in order.

The first deals with divination, and witches, and magic, both natural and black—quite black, and it is ascribed to Marco Antonio Zimara, whose name will occur again in connection with the *Antrum magico-medicum*. No portion of this tract is contained in the first part of that work, though it may be reproduced, of course, in the second part, which I have not as yet seen.

^{*}Francosvrti, Typis Wolffgangi Richteri, impensis Antonij Hummij. M.DC.XIV. 24°, pp. [24] 635.

Then comes a long extract from the second book of Baptista Portas Majis Naturalis, consisting of a miscellany of curious secrets.

The second chief tract in the volume is another reprint of the *Liber Aggregationis*, by Albertus Magnus, of the virtues of plants, minerals, and animals, including the *De Mirabilibus Mundi* as usual. The demand for this book, as has been already observed,* was extraordinary, and is one of the wonders of literary history.

The third tract is entitled Commentatio De Magnetica Curatione vulnerum, citra superstitionem, dolorem, & remedii applicationem. Authore R.G. M.D. This is a reprint of a work which was published in 1609, and was afterwards printed in the Theatrum Sympatheticum at Nüremberg in 1662. It is one of the earliest tracts on the weapon-salve, and the author R.G. is Rudolphus Goclenius.

He was the son of the logician and philosopher of the same name, and was born at Wittenberg, August 22, 1572. His studies were pursued at Marburg. and after taking his degree, he went to Italy and Denmark. In 1608 he was appointed Professor of Physics at Marburg, of Medicine in 1611, of Mathematics in 1613. He was a laborious teacher, a diligent author, a voluminous writer, and a man of great acquirements, but with a leaning towards the secret sciences, alchemy, magic, divination, chiromancy, and so on. His doctor's thesis dealt with Paracelsus' methods in medicine, and the inaugural address which he delivered in 1608 on his receiving the chair was devoted to a defence of the weapon-salve. The following year he published an enlarged and corrected edition which was what was printed afterwards in the Trinum Magicum as well as in the Theatrum Sympatheticum. This is certainly one of his most notable productions. It landed him, however, in a controversy with a Jesuit, Roberti, who, quite as superstitious, credulous, and irrational in a different direction, had, on the whole, the best of it. But Goclenius stuck manfully by his doctrine and wrote replies to Roberti, though with no effective result. Nature had already passed sentence against the salve. At a later period the debate was revived and gave rise to a considerable amount of literature, some of which will fall to be considered under Digby, a little Other works by Goclenius were on augury, astrology, chirofurther on.

^{*} Trans. Archaol. Soc. Giasgow, (N.S.), 1890, II, p. 432.

mancy, and some were on medical topics. He died on the 3rd of March, 1621.*

The last tract in the *Trinum Magicum* professes to give the oracles of Zoroaster and the mystical philosophy of all the nations of antiquity. It does so—in aphorisms.

Freytag's† account of the book is notable in several details. In the first place the edition, which he describes, is dated 1663, and he does not seem to have known that there were editions fifty years before it. Then he confesses that he has failed to discover anything whatever about Cæsar Longinus, but thinks that it is a pseudonym. According to the editor of the Kiranides, a book of secrets which is referred to below, Cæsar Longinus was no other than Goclenius himself.‡ Next, with regard to the initials R.G., Freytag makes the following remark: Libelli superstitiosi auctorem, aliis investigandum relinquimus. This is very singular. It is almost impossible to believe that Freytag did not know that R.G. was Rudolphus Goclenius. On the other hand, if he knew who R.G. was, what was to prevent him stating the fact of the authorship? Is it an understood thing among his countrymen that Goclenius' name should never be mentioned?

The only difference between the early and late editions lies in the existence of a concluding tract which is not contained in the early editions, with the

A very good account of Goclenius was contributed by Külb, to Ersch & Gruber's Allgemeine Encyklopädie, Leipzig, 1860, I. lxxi. pp. 365-67. But Germany has since got ashamed of him, for his name is omitted altogether from the Allgemeine Deutsche Biographie, Leipzig, 1879, vol. ix., although an extravagant amount of space is allotted to his father, Rudolphus Goclenius, the elder, who, even as a third rate philosopher, was in no respect superior to his son. Very different is the treatment by Desgenettes in the Biographie Universelle, Paris, 1857, xvii. pp. 6-7. There the son receives chief consideration, and the father is alluded to in a short paragraph at the end of the article, simply to prevent mistakes being made about the authorship of certain works. I do not know how the new German biographical dictionary can claim to be allgemeine when it deliberately omits such a man as Rudolph Göckel, the younger. That Germany has produced some cultivators of the occult sciences is a fact which may be deplored but cannot be forgotten.

[†] Adparatus Litterarius, Lipsiae, 1755, iii. pp. 153-156.

[‡] Kirani Kiranides, 1638, Præfatio Isagogica Editoris, f. 3 verse: "Prout in Trino Magico pag. 231 legere est, ubi opusculum illud Alberti maximè barbarum & nostrô magis ineptiens Cæsar Longinus Philos. Vel potius ipsemet Rodolphus Goclenius, Medicinæ & Artium Doctor Celeberrimus Francofurti M.DC.XVI. publicare non est veritus."

corresponding entry in the title-page. It is inscribed de proprii cuiusque nati Daemonis inquisitione, and Freytag loses his temper over it, and is at loss to say whether the author was a superstitious fool, or blasphemous knave, but seems to think that the author, by his own confession, felt conscious of being the latter. I do not know who the author was, but obviously the 1663 edition is one to possess.

Under the name of Marco Antonio Zimara, which has occurred in the preceding article, a book of secrets appeared at Franckfurt in 1625. Zimara* was born at San Pietro in Galatina, in the kingdom Naples, about 1640. He went to the University of Padua, where he graduated in 1507, and was appointed to a Chair of Philosophy, During the wars he returned to his native place, and, in 1522, he was sent by his countrymen to defend their rights before the King of Naples against the claims of Ferdinand Castriotto, who had obtained the lordship of Galatina. His abilities kept him at Naples where he taught theology. In 1525 he went back to Padua, and was reinstated in his Chair of Philosophy. He died there in 1532. He delivered lectures upon Aristotle and Averroes, and he commented, and subdivided, and vocabularized, and indexed, and dilucidated, until at the end of three years, the students, even of Padua, tired of him.† He was the author of a big work on Averroes, which was published at Venice in 1565, and of some others, besides the book of Secrets ascribed to him.

Its long title is as follows:

Marci Antonii Zimaræ, Philosophi, Antrvm Magico-Medicvm. In quo Arcanorvm Magico-Physicorvm, Sigillorum, Signaturarum & Imaginum Magicarum, secundum Dei nomina & Constellationes astrorum, cum Signatura Planetarum constitutarum, vt & Curationum Magneticarum & Characteristicarum ad omnes corporis humani affectus curandos: Thesavrvs Locvpletissimvs, nouus, reconditus. Cui Medicamenta Etiam Varia Chymica ex Mineralibus & Vegetabilibus conficiendi modus: Tractatvs item de rebus, quæ humano corpori eximiam & venustam formam inducunt: De variis etiam Metallorum & Minerarum præparationibus, & experimentis plurimis, quorum consideratio candidioris & Philosophici ingenii est, Tractatio subiungitur. Accessit Motus perpetui

^{*}Weiss, in Biographie Universelle, Paris, no date, xlv. p. 524, gives a sketch of his life and works.

[†] Averrois et l'Averroisme, 2º Ed. Paris, 1861, p. 373, sqq. Renan's account here of Zimara is florid and lively, and, I suppose, is also accurate.

Mechanici absque vllo aquæ, vel ponderis adminiculo conficiendi documentum. Cum Elencho Capitum, Remediorumq3 quæ Antro hoc Magico continentur.

Francofvrti, Typis Ioannis Friderici Weisii, M.DC.XXV.

In the year following, 1626, appeared the second part of the *Antrum* which, I regret to say, I have been unable to examine. Its title, however, which is given by a number of authorities, may be quoted to complete the account of the book.

Antri Magico-medici Pars II. in qua arcana naturæ, Sympathiæ & Antipathiæ rerum, in plantis &c. omniumque corporis humani morborum, in primis Podagræ, Hydropes, pestis, Epidemiæ, & Cancri exulcerati cura hermetica, specifica, characteristica, & medica continentur. Accesserunt portæ intelligentiarum & Canones hermetici de spiritu, anima, & corpore maioris & minoris mundi.

Francofurti, 1626, in 8.

Of the first part of this book there is a translation into German. It also has a very lengthy contents-title, as it may be called:

- Marci Antonii Zimaræ Magische Artzney-Kunst, Darinnen enthalten Ein gantz neuer überaus reicher Schatz verschiedener Magisch-Naturgemässer Geheimnisse, insonderheit aber von Sigillen: allerhand verborgenen Signaturen und Bildnussen: wie auch von allerley Magnetisch- und Characterischen Hülffs-Mitteln, Krafft derer alle und jede Gebrechen des Menschlichen Leibs zu curiren und zu heilen seynd. Darzu kommt über dieses noch
- Eine deutliche Handleitung, unterschiedliche rare Chymische Artzney-Mittel aus den Mineralien und Erdgewächsen zu präpariren.
- II. Ein besonders Träctatlein, handlend von vielen schönen Schmincken, Anstrichen und dergleichen Sachen, dardurch sich ein Mensch eine saubere, zarte, glatte unde schöne Haut machen kan.
- III. Eine Anweisung, die Metallen und Mineralien zu bereiten.
- Alles mit gewissen Proben und Experimenten, wie es einem rechtschaffenen Philosopho zusteht, ausgezieret. Samt einer besondern Handkunst Ein Perpetuum Mobile oder sich immer bewegendes Ding, ohne Beyhülff des Wassers, oder Gewichts, zu machen. Auf vielfältiges Begehren aus dem lateinischen in das Teutsche übersetzet. Deme noch beygefüget, ein nützliches Tractätlein, wie der Mensch sich vor allen ansteckenden Kranckheiten durch seinen eignen Speichel präserviren kan.

Franckfurt, In Verlegung Joh. Ziegers, Buchhändlers, 1685.

This is an 8° volume, and, besides the printed title, it has an engraved title in three compartments. In one is represented a patient in bed taking a cup from a physician; in the second, a magician within a circle, is engaged in

conjurations; and, in the third, there is a man on his knees pouring water, apparently, from a jar upon the root of a tree.

I have not observed any translation of the second part into German.

What reason there is for crediting Zimara with this book I have not discovered. It was printed long after his death and after the works acknowledged to be his. There is nothing in the book itself pointing to him especially as the author, and if one may judge by the similarity of its contents to those of the general run of contemporary medical receipt books, I should be inclined to consider it altogether, or at any rate in large measure supposititious, ascribed by its author to Zimara to give the book a character, but neither more nor less than a compilation of the seventeenth century, though it may have a basis in some work of Zimara's which I have not seen,* or in an earlier edition.

From the author's address to the reader, one would infer him to have been alive when the volume was publishing and not to have flourished one hundred years anterior to it. For in it he speaks of "our most ornate printer, Weissius" making up his mind to bring out an edition in a handier size, with more elegant type, free from the faults which swarmed in the former edition, and enlarged with a bundle of the most excellent and most absolutely recondite secrets and experiments anywhere to be had. Surely Zimara, among all his secrets, had not that of long life or of rejuvenescence to enable him to write of "our book," as the author of the preface calls it, ninety-three years after he was reported dead?

Further, a number of the authorities quoted in the book were not known in 1532 when Zimara died. For while there are extracts from Albertus Magnus, Geber, Lully, all prior to Zimara, and from Paracelsus, his contemporary, there are also others from Levinus Lemnius whose book was not published till 1559, from Jacques Houlier or Hollerius, and from Baptista Porta, who all flourished subsequently to him. Even supposing, therefore, that part of

^{*} Freytag (Adparatvs Litterarivs, Lipsiae, 1755, III. p. 134) quotes an edition of Artistotle's Problemata, Paris, Hieronymus de Marnef, 1558, 12°, ff. 141, which contains also the Problemata of Zimara. But from Freytag's account it does not seem to have anything to do with the Antrum. There is a French translation, Lyons, 1587, 12°. Another work by Zimara is in folio: Questio de movente et moto, Venice, 1505. His Tabula et dilucidationes in dicta Aristotelis et Averrois was published in folio at Venice, in 1565.

the book be taken from some work by Zimara, it is impossible that it, as a whole, could have been produced prior to the year 1532; a later hand must have been busy with this edition, and I have little doubt that its true date is a century later, that is, 1625.

Another proof of this, I think, is the publication of the work in two parts, in successive years. If it were printed from a work of Zimara's either in MS., or already in print, why was it not all printed at once? To this question an answer might be had if one could see the second part, for in all probability, it contains a preface which would throw some light on the history of the work. This, I may be able to get on a future occasion. In the meantime I suppose the compiler had not got the second part ready to print till 1626.

There is one matter about which a word of explanation by Zimara, or Goclenius, or the author of the Antrum, would have been welcome. In Goclenius' tract on the weapon-salve (Trinum Magicum, 1616, pp. 385-441, Theatrum Sympatheticum, Norimb. 1662, pp. 197-215) there occurs a section devoted to the signs and sigils of Hermes, Raphael, Chael, Solomon, etc. This is contained in full in the Antrum magico-medicum, 1625, pp. 175-210. Did Goclenius, in 1609, borrow this passage from a work by Zimara, or did the author of the Antrum plunder Goclenius and carry off the property to his Magic Cave? He admits as much in his preface. If the former, Goclenius must have had, after all, an earlier edition of the Antrum to refer to. If the latter, then the whole of that work cannot be by Zimara.

What was this earlier edition of the Antrum, described as running over with errors, which Goclenius may have consulted? No such book is mentioned in any catalogue or bibliography, and one would feel inclined to believe it a pure invention of the author, to give his book some degree of standing, and that it was just in keeping with the ascription of it to Zimara. But it may be as well to admit that there is a difficulty. Kestner,* who believes that the Antrum is spurious, quotes Arcudi's Galatina letterata for an edition of 1575-76, in 8°. If Arcudi be correct, it would still require to be shewn that Zimara was the author; and it would require to be proved that the edition of of 1625-6 is a reprint of it. These are topics about which, in the absence of facts, discussion is useless. There is besides the prior question:

^{*} Medicinisches Gelehrten-Lexicon, Jena, 1740, p. 934.

is Arcudi correct? I have at present no means of investigating these problems. The edition of 1625-26 is the only one referred to by all (except Renan) who speak of Zimara, as by Brucker,* Mercklin,† Vogt,‡ and Freytag,§ and its rarity is remarked on by these authorities.

A student of natural history and an author of marked importance was Johannes Jonstonus. He was born in 1603 at Sambter near Lissa in Poland, of Scotch parents of distinguished descent. He began his academical career at Ostorag, Beuthen, and Thorn; in 1622 he visited England and Scotland, and continued his studies at St. Andrews till 1625, when he returned to Poland. In 1628 he started on a visit to various Universities, including Franckfurt, Leipzig, Berlin, Francker, Leyden, where he studied anatomy and botany, London, and Cambridge, where he continued the same pursuits. After some time he went back to his native country, and undertaking the charge of two youths, again went on a tour through Europe. This lasted from 1632, the year of his first published work, to 1636, and they travelled together through England, France, Holland, and Italy. On this journey he received the degree of M.D. at Leyden, September 15, 1632. Some years

^{*} Historia Critica Philosophiae, Lipsiae, 1766, iv. p. 205, note z. Brucker speaks scoffingly of the work, but does not indicate any scepticism as to its authenticity, as I think he ought to have done. He says: "Fuit is [Zimara] Medicus et philosophus magni nominis, qui vero Aristotelis physiologiam ad magiam more seculi XVI transtulit. Cujus testis esse potest Antrum eius magico-medicum, liber rarissimus, in quo, vt habet titulus. . "and then he quotes the title. Of the second part he says: "Eiusdem quoque furfuris pars altera est, in qua "Arcana naturæ. . "and after giving the title he concludes: "ex hoc vngue cognosce leonem."

[†] Lindenius renovatus, Norimbergæ, 1686, p. 775.

[‡] Catalogvs . . . Librorum Rariorum, Hamburgi, 1747, p. 735.

[§] Adparatus Litterarius, Lipsiæ, 1755, III. p. 154.

^{||} There are numerous articles about Jonston in the biographical dictionaries. The following will afford fuller information about him: Moréri, Dictionnaire Historique, Paris, 1759, VI. p. 370. Niceron, Mémoires, Paris, 1740, XLI. pp. 269-276. Külb and Theile in Ersch and Gruber's Allgemeine Encyklopädie, Leipzig, 1844, II. xxiii. pp. 7-8. Cuvier in Biographie Universelle, Paris, no date, XXI. pp. 147-48. Jöcher, Allgemeines Gelehrten-Lexicon, Leipzig, 1750, II. col. 1962-3. Jöcher confuses him with another John Jonston, Professor of Theology at St. Andrews, author of a chronology of the Kings of Scotland, dedicated to King James VI. Kestner, Medicinisches Gelehrten-Lexicon, Jena, 1740, p. 432. Mercklin, Lindenius Renovatus, Norimbergæ, 1686, p. 620. Hallam, Introduction to the Literature of Europe, London, 1854, III. p. 208.

later he had the offer of two professorships of medicine, but he would not exchange the complete liberty of private study and research for the duties of a public office, Instead whereof, he went to Silesia and settled on his estate, called Ziebendorf, near Liegnitz; where he resided till his death which occurred on June 8, 1675.

Jonston wrote treatistes on medicine, history, literature, and other topics, but he is best known by his works on natural history, trees and plants, animals and minerals. I include him on account of his first published work, which happened to be on the marvels of nature.

An History of the Wonderful Things of Nature: Set forth in Ten severall Classes
. . . , written by Johannes Jonstonus. And now Rendred into English By
A Person of Quality.

London, Printed by John Streater, living in Well-Yard near the Hospitall of St. Bartholomew's the Lesse, and are to be sold by the Booksellers of London, 1657.

This work was composed in 1630, when he was in London, and was published at Amsterdam in 1632,* under the title: Thaumatographia Naturalis, in Classes decem divisa, and several editions followed. The English translation, in a small folio volume, was made by John Rowland; and as it was not mentioned by any authority till quite recently, it is presumably of considerable rarity.†

The ten heads under which Jonston arranges his material are these: I. The Wonders of the Heavens; II. of the Elements; III. of Meteors; IV. of Minerals; V. of Plants; VI. of Birds; VII. of Four-footed Beasts; VIII. of Insects, and things wanting blood; IX. of Fishes; X. of Man.

This is a collection of natural wonders of all kinds, and it displays the author's erudition if it does no more. There is nothing from his own experience, but he has ransacked ancient and modern literature, for whatever marvels they could furnish. One cannot but be impressed by the different conception of natural science in the 17th century as is shown in this and similar compilations so often referred to already, from that which is entertained now. The older naturalist collected chiefly the exceptional things of

^{*} Mercklin, Lindenius Renovatus, Norimbergæ, 1686, p. 620.

[†] It has been omitted by Lowndes, Hallam, Allibone, and even Watt, but I find that Hazlitt has quoted it, Second Series of Bibliographical Collections and Notes, London, 1882, p. 321.

nature (the more wonderful the better for his purpose), which he found on record, without question; or, if he questioned, without attempting to substantiate his opinion by a personal observation or experiment. The ordinary phenomena were passed by as of no importance, or as too familiar to deserve notice or to require explanation.

Though Jonston's merit, therefore, was that of a laborious compiler, as indeed were most of his contemporaries who wrote on natural history, and though he was unable to criticize, or prove thoroughly the statements of the writers whom he systematized, his books, as Cuvier says, can still be read with no small amount of pleasure; and they were the main authorities down to the time of Linnæus.

The career of Jonston resembles very closely that of Paschius, and some others who have been quoted. In wide academical training, in their travels, in their extraordinary erudition and encyclopædic acquirements, in their literary activity and productiveness, there is a sort of family resemblance. Jonston, however, kept himself more closely to natural history, zoology, and botany, while Paschius made a specialty of theology and philosophy. And now their very names are forgotten.

A book of genuine receipts was drawn up by a certain John Bate:

The Mysteryes of Natvre, and Art: conteined in foure severall Tretises; the first of water workes the second of Fyer workes, the third of Drawing, Colouring, Painting, and Engrauing, The fourth of divers Experiments, as wel serviceable as delightful: partly collected, and partly of the Authors Peculiar Practice, and Invention by J. B

Imprinted at London for Ralph Mab and are to be sold by Iohn Iackson and Francis Church at the Kings armes in Cheapeside 1634.

This is a small 4°. The general title-page is entirely engraved, and in a series of compartments are representations of the different works of art described in the text. There are also separate titles to the last three treatises. From the irregularities both in the signatures and pagination of this book, it is a little difficult to know when it is complete. The copy I have seen has the separate title-leaf, then signatures A to Q (wanting H I, title to Part II.), q, R to T 3, Aa to Ff 3, all in fours. T 4 and Ff 4, wanting, are probably blank. There is a separate leaf with an illustration interpolated between C 3 and C 4. The pagination begins on B, and runs continuously to P 4 verso, p. 112, and

omitting Q and q, is resumed on R 1, p. 121, to T 3 verso, p. 142. Aa 1, the title of book IV. is not paged, but the verso of Aa 2 is numbered 150, which involves a blank of 4 pages between T 3 and Aa 1. The pagination after this goes on regularly to the end, p. 192.

There is a copy in the British Museum,* but I have not examined it.

The contents of this volume are quite sensible and practical. In the first part, under "Water Works," are included syphons, pumps, water clocks, and various fanciful tricks effected by the flow and pressure of water. "Fire Works," in the second part, are equivalent to modern pyrotechny, and it is quite surprising to see how some devices still in use were familiar to Bate. The third part is upon drawing and painting; and the fourth, entitled the "Booke of Extravagants," contains miscellaneous receipts and secrets, technical and medical.

A second edition of this book, "with many additions to every part," appeared during the following year, 1635, of which there is an imperfect copy in the British Museum.† It is of the second edition that the following collation is given by Lowndes, which may be quoted, as according to it there are differences in the two issues.

Title, with engraved border; to the reader, a leaf, then complimentary verses and work A—Qq. in fours. Prefixed is a portrait (scarce) of the author, by G. Gifford, at p. 61 is a separate woodcut representing the horses at work to the engine for a Tyde-water, and at p. 65 another marked D, representing the wheel of an engine.

To judge by the signatures, this book must be a good deal larger than the other. The separate cuts also seem to be added, as well as the portrait. The suggestive word "scarce" signifies that the "Grangerites" plunder the portraits, and then cast the mutilated copies adrift.

There were other editions in 1638 and 1654, according to Lowndes. That of 1638 is nowhere described, but Hazlitt quotes the edition of 1654.§

^{*}C. 27. h. 5.

^{† 1044.} i. I. I have not examined it,

[‡] Bibliographer's Manual, ed. Bohn, London, 1865, I. p. 128.

[&]amp; Collections and Notes, London, 1876, p. 30.

The Mysteries of Nature and Art. In four severall Parts. . . . By John Bate. The third Edition with many Additions. Printed for Andrew Crooke 1654. 4°, B—Hh 2 in fours, and the title-page. The last 3 leaves are occupied by the publisher's advertisements. With a profusion of engravings.

If this be the third edition, can there have been one in 1638?

Of all the books of secrets, however, which I know of, there is no one more extraordinary than that entitled *Kirani Kiranides*. It was privately printed in Germany in 1638, and from the very first it has excited curiosity, and from its rarity has been hunted down by the lovers of out of the way books. This book is quite unknown in this country, and I am not aware that any description of it is extant in English. There are copies of the Latin and the translation in the British Museum. The following is a sketch of both. The Latin opens with a title:

Moderante Auxilio Redemptoris Supremi, Kirani Kiranides, Et ad eas Rhyakini Koronides. Qvorum ille In Qvaternario thm Librorum, qvhm Elementari, è totidem Lingvis, Primò de Gemmis XXIV. Herbis XXIV. Avibus XXIV. ac Piscibus XXIV. qvadrifarihm semper, & ferè mixtim ad Tetrapharmacum constituendum agit; Inde Libro II. de Animalibus XL. Lib. III. de Avibus XLIV. sigillatim, & Lib. IV. de LXXIV. Piscibus iterum, Eorumq3 viribus medicamentosis: Hic verò studio pariter qvadrifido Ms. post semi-millenarium annorum ex inemendatissimo primum edidit, 2. Notis interspersis subjunctisq3 illustravit, 3. Przefatione Isagogicâ ornavit, & 4. deniq3 Indicibus auxit.

Following this title is the preface of the editor in which he describes how he came to undertake the publishing of the work, and discusses the meaning of Kiranus and other obscure matters relating to the book itself. All this occupies 16 pages. Then there is another title-page:

Liber Phyisco-Medicus Kiranidvm Kirani, i.e. Regis Persarum, Verè aureus gemmeusq3; Post io ferè annos nunc primum è membranis Latinè editus cum Notis. Qvi multis adhuc seculis antè Syriacè, Arabicè & Græcè scriptus & versus extitit: Cum autem reliquæ translationes interciderint, Hæc semibarbara non omninò sepelienda, nec ita totum opusculum obliterandum fuit. De qvo qvid sentiendum sit, reqviratur in C. Barthii Advers. & Lexico Harpocrationis.

Æra C. clo loc xxxviii.

On the reverse of this title is a dedication. The work then begins with a preface by the old translator which contains an account of the book and the meaning of the name; after which the description of the secret virtues of beasts, birds, fishes, plants, and gems begins on p. 8, and ends on p. 104. Six pages of notes follow, and thereafter the last part about birds and fishes

pp. 111—159. Then there are more notes, and the book concludes with alphabetical indices of the Greek names and a Latin index of diseases and other affections, in all 23 pages. The book is a small 8°, printed in very inferior style on very inferior paper. Its attractions lie in its extraordinary contents, in its great rarity and in the difficulties connected with its history.

There appears to have been a second edition of this book. Morhof, in his account,* speaks of a Latin MS. given by Eleonora, Landgravine of Hesse, to Heinrich Ellenberger, which came into the hands of Rivinus who published it at Leipzig in 1637, an error, I suppose, for 1638. Then he adds: this edition I have not seen, but another published at Frankfurt in 1681, 12mo, which, according to the title, was the second edition. He follows this up with the contradictory remark: "Nulla illic prioris editionis mentio, quæ vel ignoratur, vel dissimulatur." Except in this passage I have not seen any allusion to the later edition.

It is not a little remarkable that this book was translated into English, for, as a rule, books of the kind have never been in vogue in this country. The translator has concealed his name, but in a preface, partly original, partly translated, he has given a sketch of the book in which he tells about Ellenberger's MS., says that the Latin was privately printed and distributed, and that after diligent search and some difficulty he procured a copy, and translated it. Even at that time therefore, in 1685, fifty years after its publication, it had become a scarce and much coveted book. If it were so scarce then, it has become much scarcer in the course of two hundred years more.

The following is the title of the translation:

The Magick of Kirani King of Persia, and of Harpocration; Containing the Magical and Medical Vertues of Stones, Herbs, Fishes, Beasts and Birds. A Work much sought for by the Learned, but seen by few; said to have been in the Vatican Library in Rome; but not to be found there, nor in all the Famous Libraries of the Empire. Now Published and Translated into English from a Copy found in a private Hand.

Printed in the Year MDCLXXXV.

The place and printer's name are not given. It is a small 8°, and contains Title and Preface, pp. [16]; Epistle, pp. [8]; Text, pp. 156; Indexes, pp. [14]. This book is nearly as rare as the original Latin.

^{*} Polykistor, Lubecae, 1714, I. cap. XI. p. 98.

As has just been remarked, there are few books surrounded with greater obscurity than this one. The meaning of the name of the work; the date of its composition; the name of the reputed author; his nationality; the original language of the treatise, Greek, Arabic, Syriac, Persian; the existence and and authenticity of the alleged Greek manuscripts; whether these manuscripts represent the original work; the Latin translator; whether the Latin translation was really made from the Greek, or other language, or whether it is a recent compilation; the Latin edition of 1638, whether it represents the original work, or merely the Latin compilation, if so be, these are different; the editor of this edition, Andreas Rivinus, or some one else; the value to be attached to his introduction, describing how the book came to be printed; the place where and the person by whom the edition was printed; in short, there is hardly a point connected with the work which is not in doubt; which is not, at all events, open to discussion. The very existence of the English translation has been hesitatingly admitted, because it was only known from a catalogue: "Catalogus Bibliotheca Harleiana, Tom. II. pag. 810: Catalogue, auquel on ne doit se fier qu' à bonnes enseignes." It would take too much space here to attempt to answer all the questions that arise, and to give the reasons for preferring the view of one writer to that of another, it will suffice to refer to a minute investigation of the subject published by Prosper Marchand.* Even he, however, did not come to any definite conclusion, but left open for further enquiry the main question: Does the edition of 1638, however much it may be "une mauvaise Rhapsodie de superstitions, aussi ridicules qu'impies," in any way represent the supposed original treatise of Kiranus? He is unable to say.

Reinesius, who discussed the book with Rivinus, felt it almost a personal insult when under the title of *Kirani Kiranides* he got a volume of absurdities, instead of the work of so much renown. There is no evidence as to what Reinesius was entitled to expect, or whether he did well to be angry; but supposing he had got the genuine work, was he sure that its contents would have been any more gratifying? Reinesius must have proceeded on the assumption that the 1638 edition, after he saw it, was spurious. But that is

^{*}Dictionaire Historique, La Haye, 1759, Tome II. pp. 1-8.

just a point on which no discussion or opinion has any bearing, until the matter of fact is ascertained. If there are Greek or other MSS, existing which can be proved genuine, then let it be ascertained by comparison whether the Latin edition agrees with them. That seems to be the only way of arriving at a conclusion.

For the present, however, I must confine my remarks to the book itself, leaving these questions of its history and authenticity and consideration of its contents for another occasion.*

Out of the unvisited recesses of English literature there emergeth ever and anon an unknown book of receipts, which may startle us no less by its title than by its contents. The following is a volume which is quite new to me, and which is omitted by the bibliographers. The title is worth reproducing in full:

Natura Exenterata: Or Nature Unbowelled By the most Exquisite Anatomizers of Her. Wherein are contained, Her choicest Secrets digested into Receipts, fitted for the Cure of all sorts of Instrmities, whether Internal or External, Acute or Chronical, that are Incident to the Body of Man. Collected and preserved by several Persons of Quality and great experience in the Art of Medicine, whose names are presixed to the Book. Containing in the whole, One thousand seven hundred and twenty. Very necessary for such as regard their Owne Health, or that of their friends. Valetudinem suam cura diligenter. VVhereunto are annexed, Many Rare, hitherto un-imparted Inventions, for Gentlemen, Ladies and others, in the Recreations of their different Imployments. With an exact Alphabetical Table referring to the several Diseases, and their proper Cures.

London, Printed for, and are to be fold by H. Twiford at his fhop in Vine Court Middle Temple, G. Bedell at the Middel Temple Gate Fleet ftreet, and N. Ekins at the Gun neer the West-end of S. Pauls Church, 1655.

This is a small closely printed 8vo, and it is made up almost entirely of receipts in medicine and surgery. These have been collected from many sources, a list of all the people who have contributed information being given. One salve, good for bruises and wounds, called Gratia Dei, was revealed (it is said) unto King Alexander by an Angel. Many of the receipts are fanciful or superstitious; substances, chiefly plants and their extracts, were employed, the virtues of which were, of course, really unknown, and some of the substances have happily dropped out of use. To many of the

^{*[}Fuller details were communicated subsequently to the British Archæological Association at the meeting in Glasgow, September 4, 1888.]

receipts is appended the magic word "Probatum," as in Lupton's, Mizaldus', and other collections. At the end are a few technical receipts.

The belief that the preservation of receipts by Persons of Quality conferred some additional virtue on them when healing had to be done is worth notice, as it indicates an attitude with regard to the practice of medicine which has been entirely altered by medicine having become somewhat scientific, or at least having to depend more upon the sciences for its progress.

Parallel with the chemical secrets published at London, in 1683,* Hartman edited another series by Sir Kenelm Digby:

Choice and Experimented Receipts In Physick and Chirurgery, As also Cordial and Distilled Waters and Spirits, Perfumes, and other Curiosities. Collected by the Honourable and truly Learned Sir Kenelm Digby Kt. Chancellour to her Majesty the Queen Mother. Translated out of several Languages by G. H.

London, Printed for the Author, 1668.

This is a small 8vo volume, and has a portrait of the author engraved by Cross. I have seen another copy of it which has the following clause inserted after the word "Author:" "and are to be sold by H. Brome at the Star in Litte-Britain (sic), 1668." There does not seem to have been any portrait in this copy.

The volume deals mainly with receipts and prescriptions for different common ailments, but incidentally there is a little practical chemistry in the preparation of the compounds employed. Among them the product of the destructive distillation of tobacco, which was used for the cure of ulcers, and which even by external application caused sickness, is described.

In 1675, "the second edition corrected and amended" was printed at London, "by Andrew Clark, for Henry Brome, at the Gun at the West-End of St. Pauls."

Under Digby's name there appeared certain books of secrets in French and German, but they are not translations of this collection of Hartman's, although they contain a good many of his "choice receipts." The French version was made by Jean Malbec de Tresfel, the royal privilege for seven years is dated 1668, but I do not know if the book first came out then. The copies I have seen are of a later time. The oldest of them is printed along

^{*} Trans. Archaol. Soc. Glasgow, 1883, II. p. 261.

with Digby's discourse on the powder of sympathy. It has no separate title-page, but is headed Remedes Experimentez en Medicine et Chirurgie and appended are the secrets about cosmetics—pour la Conservation de la beauté des Dames. It forms a small 12° volume, and it was printed at Utrecht, for Rudolphe van Zyll, in 1681.

A second copy is the following:

Remedes Souverains Et Secrets Experimentez De Monsieur le Chevalier Digby, Chancelier de la Reine d'Angleterre. Avec plusieurs autres Secrets & parfums curieux pour la conservation de la beauté des Dames.

A Paris, Chez Guillaume Cavelier, au quatriéme Pillier de la grande Salle du Palais, au Palmier. M.DC.LXXXIV. Avec Privilege Dv Roy.

A third copy is in two volumes:

Nouveaux Secrets Expérimentez, pour conserver La Beauté Des Dames, et pour guérir plusieurs sortes de Maladies: Tirez des Mémoires de M. le Chevalier Digby, Chancelier de la Reine d'Angleterre. Avec son Discours touchant la guérison des Playes, par la Poudre de Sympathie. . . . Sixiéme edition, revûe, corrigée & augmentée d' un Volume.

A La Haye, Chez Etienne Foulque, Marchand Libraire, dans le Poote. M.DCC.

The first volume is a reprint of the preceding; the second volume contains Digby's discourse on the powder of sympathy, and a number of other secrets partly chemical, partly medical, drawn from various sources, but whether or not gathered by Digby originally, I do not know. The secrets for preserving female beauty, which give the book its title, occupy only eight pages at the end of the first volume.

The German translation appeared under the title Medicina Experimentalis Digbæana, das ist: Auszerlesene und bewährte Artzney-Mittel. The translator's name is not given, but it is probably M. H. Hupka, the name of the person who translated the discourse on the powder of sympathy, mentioned below. The preface is dated Franckfurt, 1670, about which year the first edition was published. In 1672, at the same place, appeared the only edition of the book which I have seen, and which is stated to have been newly revised and enlarged with several approved experiments. The translation contains the bulk of the receipts given in the French version, but the arrangement is somewhat different, and there are a few alterations.

Digby was the author of a wine and cookery book also, entitled *The Closet Opened*, the third edition of which was printed at London in 1677. As it is

Digits and is a his a tale similar to that of other books already mountain a man be allowed a place in the present notes. There is a time of Digits prefixed in a subtry of that by Cross, but besides being marror machine, a laters his expression, and is lacking in dignity.

In the proper of these Nove reference more than those has been made all more in cooks about sympany and annually. Fire considering the mount of amount which is immuned it is perhaps necessary to take some that to verse their of the discourse on the powder of sympathy, one of the in larges of Physics traditiones. It was moretree the revelation of a conceptioned served a resource, the course of which Digity traces in a very tensory was and me recessor for when he derives, though he finds used traine to a mid to. But though the solvent falls generally under the tagent of a medical or surgical secret of a caself so very special, the dis-1860 Street that so remained the interests is so extensive and branches If we wider denoting him the main theme of the present notes, that if the court is to the said about that all it will be more interested to deal with it a special supplement in vision and Project Especialse alone but other works nare souten as yet, mande mostered in detail. Ingriy's discourse was to the first or the schedule any means. The marriversy between Godenius nd Kovern has arready been referred in . Another incurrersy arose about types the between Farmanic Camer and a third was carried on with the sea amortile internaling in assets nerview Parson Foster and no less that the rate may known blood. It was an in the air therefore, and Digby has the session and a rensor to alone manning the inflation. So far as I can South and I some to the first decreased in French to the scientific assembly? a Maraye, on may was all Changes, and taken in short writing upon the place s was carried. The provinge is direct Persenber 2182 1657, the printing as in said February 15th, 1058, 2nd the neek was published at Paris. It has translated into Hogish by R. Worth and the educat printed at London series for R. Lewides, has the White Lieu and T. Pavies at the Bible in the Pauls County Fard that against the line North December called the people and is perfected and argumental. This would seem to imply that

Among these are the work by Municips on the Harmony of things: Irvine's Mulicipal TA man. Societies to the Weapon-salve, and others.

there was an earlier first edition, but I have not met with a copy of it, nor have I seen a reference to it. I am disposed to think that the French edition may have been reckoned the first, and that the English version was viewed as the second. In 1660 another edition was called for, it was styled the third, and the fourth appeared in 1664.

The French version was repeatedly printed; it is included in the editions printed at Utrecht in 1681 and at the Hague in 1700, and there are others which I have not had the opportunity of examining.

It was translated into German by M. H. Hupka, with the title:

Eröffnung unterschiedlicher Heimlichkeiten der Natur, . . . und vornemlich von einem wunderbaren Geheimnüsz in Heilungen der Wunden, ohne Berührung, vermög desz Vitrioli, Durch die Sympathiam, Discurszweise gehalten in einer Hochansehnlichen Versamlung zu Montpelier in Franckreich, Durch den Hochwolgebornen Herrn Grafen, Herrn Kenelm Digby, . . .

The first edition, I believe, appeared in 1658, that is, immediately after the French was published. Of the second edition I do not know the date, but the third was printed at Franckfurt in 1664, the fourth in 1668, and the fifth in 1700. Lowndes' account of this book of Digby's is very imperfect, whereas Watt runs to the other extreme, and quotes editions, such as that of 1644 in folio, the existence of which is not only not vouched for, but is impossible. The consideration of these matters, however, must be left over for more minute inquiry than can be bestowed on it at present.*

Reference was made before to a little book of technical receipts called: Arts Treasury of Rarities: and Curious Inventions, published at London by G. Conyers.† There was another book covering pretty much the same ground, also published by him, having this title:

Art's Master-Piece: Or, a Companion for the Ingenious of either Sex. In Two Parts. . . . To which are added many curiosities and rare Secrets, known to few, and highly Profitable and Pleasant. The Third Edition. With Additions by C. K.

London, Printed for G. Conyers at the Golden Ring, and J. Sprint at the Blue Bell, both in Little-Britain. Price One Shilling.

^{* [}A paper on the subject was afterwards read to the Society on March 15, 1888, under the title: Bibliographical Notes on the Magnetic Cure of Wounds, the Weapon Salve, the Powder of Sympathy and Sympathetic Cures.]

[†] Trans. Archaol. Soc. Glasgow, 1883, II. p. 196.

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An amplification of Art's Treasury of Rarities, just mentioned, appeared in 1735, and in the socialistic comprehensiveness of its title it forms an appropriate sequel and parallel to the Ingenious Gentlewoman and Servant-Maids Delightfull Companion, formerly described.* The title is as follows:

The Gentleman's Companion: or, Tradesman's Delight. Containing, The Mystery of Dying in all its Branches. The Manner of preparing Colours. The Method of cleaning and taking out Stains from Silks, . . . The Art of Drawing, . . . Likewise the Quality of Natural and Artificial Metals. . . . The Great Mr. Boyle's Method of Writing in such a Manner as cannot be discovered without the Help of Fire, Water, &c. To which is added, The Method of curing and preserving all Sorts of Wines . . .

London: Printed for J. Stone, at Bedford-Row, near Gray's-Inn; . . . 1735.
(Price 2s. 6d.)

This is a small 12mo volume of 257 pages, besides a table of contents. The book is divided into three parts, of which part I. and two or three chapters of part II. are reprinted from *Art's Treasury*. The remainder of part II. and the whole of part III. are added. Part III. contains cookery and physick receipts, at the end of which is "the Vermin-Killer," taken in large measure from Cornelius Agrippa, it is said.

This book is not in Lowndes' or in Watt's bibliography, but I have encountered two copies within a few days of each other. It is difficult to say, therefore, whether it is rare or common, but I imagine that, if they knew it these compilers did not think it worth mention. Like most books of its class, it has little practical interest for to-day, but, when taken along with the others, it helps in tracing the history of the arts, as well as illustrating the older literature.

It has happened unintentionally—by familiarity rather than neglect—that two works, which, in virtue of their date and merits, should have been mentioned much earlier, have been overlooked until now. A few words may be added about them.

If there is one book more than another which ought to have been included -at first among those that contain "secrets," it is surely that by Cornelius

^{*} Trans. Archieol. Soc. Glasgow, (N.S.), 1888, I. p. 321.

Appropra. De l'anche l'allempaire which armaily does deal with the most recondine servers of creamon; with sympathy and antipathy; the elements; nature and man; soul and spane; the hidden power of letters and numbers; m short, with all the winderful large of magic.

It was composed by Agrippa in 1514, when he was aged 24, but it was not printed till 1551. In that year the first book only came out at Antwerp; the printing was stopped, and the whole work in three books was not published till 1555. It then passed through several editions, and was translated into English, and published in 1551. A spurious fourth book appeared in 1565, and this also was published in English in 1655 and 1665. All these books have become very true and they possess now a good deal of bibliographical value. Thus there are two, if not more issues dated 1533; uniform in style and sue, but differing essentially in details of printing.

The second work is also by Cornelius Agrippa, and is his still more famous: De invertitudine et partiste Scienciurum et Artism Declematio Invertire, and this, in its turn, can claim and ought to have had a place among the histories. For, acknowledging that it is a criticism, a wholesale and destructive criticism, of all the arts and sciences, it is unwittingly, but unavoidably, a historical essay. Agrippa could not well display and illustrate the emptiness and instability of art and man's device, without at the same time tracing their evolution and progress.

The history of this book is even more remarkable. It was first published in a small quarto volume at Antwerp in 1550 (the year before the Occult Philosophy), a volume of such rarity that just 150 years ago its very existence was denied. It at once attracted attention; it was so racy, so full of knowledge and hard knocks; it voiced so boldly what other people were only thinking about, that it was reprinted a dozen times in a year or two, and for a full century it was one of the most widely circulated books in European literature. It passed through a multitude of editions; it was translated into Dutch, English, French, German, and Italian, and there were several editions of these. The earliest editions are the best and most complete. Later on the book was deprived of much of its interest by having the telling passages ruthlessly excised, so that it was reduced to a colourless discourse on the vanity of human pursuits, without point or practical bearing.

It would take too much space to enter upon the bibliography of this work at present. It was very carefully examined by Clément* last century, and a fresh investigation, full of information, has been recently published by Auguste Prost.† But admirable as is the care these writers have taken with it, there are certain matters which they have missed, just in consequence of what everyone who has meddled with the subject has experienced, the difficulty, namely—it might almost be said the impossibility—of getting copies of all the earliest editions. Some of these details have confronted me in connection with certain undescribed editions, but consideration of them must be postponed in the meantime. ‡

Nor with the literary merits of the Declamation is it the function of the present paper to deal. It must not be forgotten, however, that it was the last great work of the author's life, not an academical or literary flourish, but an expression of his disappointment and dissatisfaction with all his acquirements and learning and experience. For a man who had run through the whole round of knowledge, and had led a busy, restless, adventurous life, to announce, in so many words, that ignorance is bliss, was to startle his contemporaries out of their self-complacency. And even after the lapse of three centuries it is not devoid of some applicability, and it survives as one of the few books of its time that can be read with interest and with profit. Perhaps it is because it deals with the essence rather than with the accidents of human endeavour.

Agrippa, however, was not the only one who discoursed anew upon the old text of the Preacher. Before Agrippa's book appeared, a certain Italian, Perisaulus Faustinus by name, wrote and published a Latin poem, De Triumpho Stultitiae. It too reiterates the same doctrine that man, from cradle to grave, is given over wholly to vanity. The author's own labours afford perhaps as good proof as any of the truth of his thesis. They have all been thrown away, for the little volume which he penned on vanity can hardly be got. It is

^{*} Bibliotheque Curieuse, Göttingen, 1750, I. pp. 81-93.

[†] Corneille Agrippa Sa Vie et ses Œuvres, Paris, 1881-82. T. II. Notes xxix. and xxxiv.

^{‡[}The subject was discussed at length in a paper read subsequently to the Society of Antiquaries, London, April 19, 1888, entitled: "Bibliographical Notes on the early editions of the De Incertitudine et Vanitate Scientiarum and the De Occulta Philosophia of Cornelius Agrippa."]

now extremely rare and only some eight or nine copies are upon record. The descriptions given of these exhibit divergences which cannot be explained or reconciled without a comparison of several copies. This, however, is most difficult of accomplishment for the copies known are widely scattered and some of them have disappeared from public view altogether. So we must be content to know that in 1524 Faustinus asked:

Nonne vides? si tecum habitas, ni desipis, esse Omne hominis vanum studium, vanosque labores?

Then, a hundred and fifty years after Agrippa, appeared the Reflections on Learning by Thomas Baker, the antiquarian, the laborious and conscientious scholar, the non-juror, the socius ejectus and historian of St. John's College, Cambridge, who not only repeated the old cry, but went a stage further and asserted practically that Agrippa's demonstration was as vain as the arts themselves, and was calculated only for schoolboys, evidently a depth of worthlessness below which it was impossible to sink. Poor Agrippa! how the irony of fate seems to have pursued him. The work which was wrung out of him by the bitterness of his life reckoned a mere rhetorical exercise, and a very second-rate performance even as that. Agrippa's own presage of what his critics would say was very true; but he never expected having schoolboys hurled at him, at least he does not specify them. Not even Catilinet, the Dominican, had such a battery to unmask and discharge.

But Baker took a less comprehensive view of the arts than Agrippa did, and his book is narrow in its range. For him the only arts were those called polite or liberal: the arts taught by Gregorius Reisch; the history of which was written by Zacharias Lilius; the symbols of which were used by Grafton for his device in Polydore Vergil's history. Of physical science he had no knowledge, and he was too wrapt up in the questions of the hour, political and ecclesiastical, and his own interest in them, to have foreseen its destiny, even had it been pointed out to him: that as the exponent of a material universe with human beings, as material objects in it, it would come to denominate the rest of knowledge. For him the study of material things was not learning or philosophy, but mechanic art. He did not realize what an amount of imagination, insight, knowledge, reflection, experience, contrivance, manipulative dexterity, is required even for the despised mechanic arts.

He did not consider what skill and thought were expended in making the paper, and the ink, and the type, and the printing press, and in getting all these to work together properly, before the book by Thomas Baker could be produced, which was to teach and preach the worthlessness of the polite arts.

After all, however, Baker helped on general progress in a way he did not anticipate. The proof of the insufficiency of mere learning and philosophy, was one of the means of impelling dissatisfied minds to look for more fruitful subjects of study; subjects which, while supplying endless problems for the exercise of all the mental faculties, alone issue in practical results which affect the existence and well-being of mankind. But that was not in Baker's intention: it was rather to limit research by setting up in its place a creed which he believed in wholly as incontrovertible and final. If such a creed could be, it would soon become stagnant and dead, and then from it new forms must issue. So it turned out. Enquiry cannot be stopped by a creed. Physical science has grown immensely and old beliefs have had also to alter.

It requires an effort to view the arts and learning as Baker saw them, and to comprehend what was to be gained by depreciating them. Religious belief was not elevated by lowering the value of the truth which had been brought to light by generations of workers in every department. Arts and learning were not perfect then; they are not prefect now. It is the certainty of coming a little nearer perfection, which is the whole and sole stimulus to work at them. Baker's attitude is not merely weak and indetensible, and inferior to that of Wotton and Temple whom he takes to task for their commendation of learning, but it is self-destructive. It is unnecessary, however, to say that the lapse of time has so entirely changed the position of the arts and sciences, that it is almost impossible to discuss the propositions which Baker lays down, and the proof is that the Reflections on Learning, once a popular work, containing much learning and illustration, is now absolutely and irrevocably forgotten. Agrippa's book, however, still lives, both for its own sake and for the matter it contains. But then it is the work of an undoubted genius whereas the other is but a temporary piece of erudition on a temporary question on a passing difficulty, by an able man, but one of circumscribed view,

Nobody has said when Baker's book was first published. It must have been in the last years of the seventeenth century. The third edition is the only one I have seen.

Reflections Upon Learning, Wherein is shewn the Insufficiency Thereof, in its several Particulars. In order to evince the Usefulness and Necessity, of Revelation. The Third Edition Corrected. By a Gentleman.

London, Printed for A. Bosvile, at the Dial against St. Dunstan's Church in Fleet-street. MDCC.

It is an 8vo, of unattractive exterior. It is said to have passed through eight editions; the only dates which I have seen quoted are 1708, 1710, 1756, which last is said to be the best. It was also translated into French, and published at Paris in 1714, with the title *Traité De L'Incertitude Des Sciences*, *Traduit de l'Anglois*. This is a nicer book than the English one.

The preface contains a review of previous writers on the same topic, and, besides Agrippa, there are mentioned Picus Mirandulanus, Ludovicus Vives, an anonymous French work, Wotton and Temple. Not one of these, however, satisfied Baker: Picus was as much out of date as the Aristotelian philosophy he attacked; Vives confined himself to Philology, and was very defective in Philosophy; the French tract was more of a sermon than a treatise on science; Wotton and Temple were too much taken up with the beauties of learning to discover its faults, so this invidious task Baker accordingly set himself to accomplish. One can but regret that the only book he published should have been so futile and evanescent a one on so unworthy a theme.

At this point I stop in the enumeration of these histories and books of secrets, for I cannot say that the topic admits of no further treatment, or that the end is reached, or that the material is exhausted even now, though it is not so abundant as when I began. With longer acquaintance, the field seems to widen, and the subject becomes more seductive and suggestive. There is always some old book coming forward which I did not know before, one compiled at a different time, or by a different hand, guided by another idea, appealing to other readers. There are books of secrets of nature and art still remaining which I have refrained from mentioning, because, while I know the titles, the books themselves I have failed entirely to see. These, obviously, must be the rarest of all. Some of them may yet be met

with, but the prospect is too uncertain to speculate about. They might have been described at second hand, but this would have been a violation of the rule that I have thought it proper to adhere to throughout this whole research: not to attempt the description of a book which I have not seen and examined. A few quoted descriptions do occur, but they have been inserted only for comparison, or for some special reason. These may be accepted as accurate until comparison with the volumes reveals mistakes, though I have no occasion to suppose that there are any.

Of the treatises already described, there are also editions which I have quoted, but have passed by without further remark. The reason is the same as before: I have not had the opportunity of inspecting them. Such has been the case, for example, with the history of Polydore Vergil, with the secrets of Albertus Magnus, Alexis, Lupton, Baptista Porta, and very many others, of which there are plenty of editions I have not seen. The description of any one of these, fully and carefully gone into, would be pretty sure to yield something of value to the bibliographer. Some of the copies too must themselves be very interesting. In a few supplementary parts I have attempted to work out more fully the bibliography of a special book, or subject, or author, and the results are sufficiently encouraging to induce me to try something similar in one or two instances more. In certain cases, of course, when the various editions are but verbatim reprints, nothing will be added to our knowledge of the original; but in others there may be a preface, or imprint, or variation, which will lighten up a biographical, historical, literary, chronological or bibliographical doubt, and the light may be reflected off to some other perhaps more obscure topic. One thing, however, experience has shewn me is quite certain, that, without such an examination of the actual books it is in the highest degree rash and unsafe to pass an opinion on an original edition, or a reprint, or a later edition of a book, or to argue about what it is like, or what it contains, or to dogmatise about the date of an edition. There is no subject in which it is easier to go astray than bibliography, and especially so, when one seeks to arrive at an opinion with the guidance of another's description, rather than of the books themselves. It is hard, if not impossible, to be uniformly accurate in one's account of such objects as books, and of their history. I am quite prepared to be told,

knowledge of all kinds, with a more thoroughgoing search for truth and reality, with centuries more of accumulated experience, is it scholastic theology and metaphysics, or is it mediæval art that appeals most strongly to the most cultured and civilized races? How many would care even to see the bulky folios of Aquinas, and Scotus, and Albertus, and Cardan, much less read them, compared with those who not merely look at but study profoundly, and even try to imitate the metal work, the pictures, the dress, the armour, the historical relics, the majolica or Palissy ware?

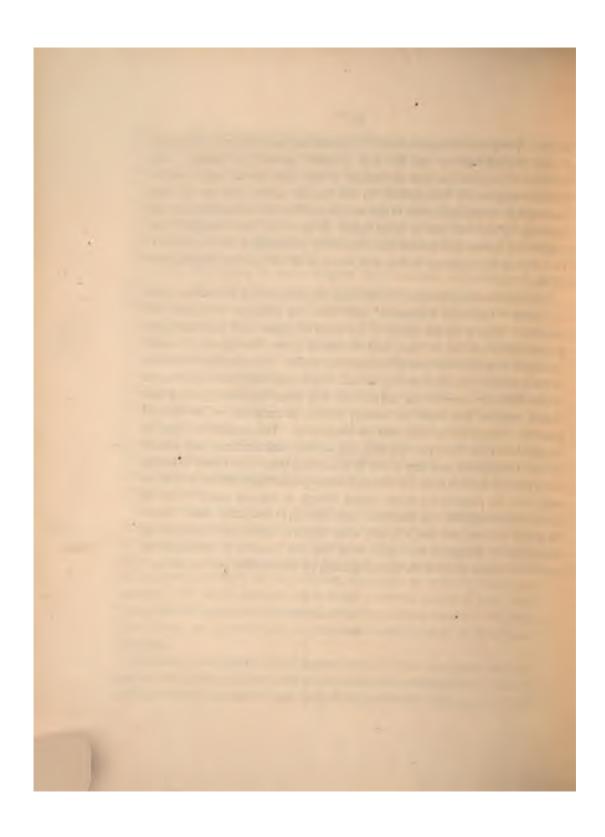
It is by the neglect of these subjects that literature and thought and education, and indirectly, even technology have become so one-sided. Education has been conducted as if all that mankind ought to care for was fiction and poetry, metaphysical speculation and theological disputation, the study of mere opinion, and the language expressing it. These could have been but the pastimes of the people, or the serious occupation of a few as at present, but not the life-long absorbing pursuits of the workers of the population, the producers, the agriculturists, the handicraftsmen, the artists. The survival of the mediæval standards for measuring knowledge and education by is most remarkable. After serving their time when nothing else was to be had, a time when men had to go through a sore struggle, mental, religious, political, physical, to arrive at freedom of thought, investigation and belief, these old-fashioned instruments are still retained when there is so much of new available.

The persistent empiricism of the arts even comes down from these earlier times when there was no learning but that of books, when science had not begun and nature was ignored, when rule-of-thumb knowledge was all that the workman had to go by. The "practical man" still thinks that empiricism is the best guide, perhaps he would say the only one, and keeps off scientific insight as intrusive. He cannot, however, do so always; science sooner or later finds its way into the recesses of his methods, and either confirms them and simplifies them if true, or amends them or obliterates them if based on insufficient principles.

Hitherto the advance has been comparatively slow, because science itself has been of slow growth, and its efforts are so restrained and demand such a minute and exact knowledge that it takes long to appeal direct to the mass of man-

kind. A step or two may be made in a generation, and they who have made it are seldom able to see the new prospect opened up thereby. But the rate of progress has been accelerated of late years by the larger body of workers engaged in investigation, by the interest forced even on the most unobservant by the application of discovery to comfort and convenience, perhaps specially by the fact that is being borne in upon the more thoughtful that neglect of nature and natural laws is a defect in education, and is certain to be followed by incapacity to deal with nature in all the practical requirements of life.

The consideration, however, of this topic would result in a dissertation upon so called "Technical Education," and upon the relations of science and practice. That is not the theme of the series of papers now concluded, but it naturally grows out of them, and at various points throughout, the same questions have obtruded themselves upon our notice. Unavoidably in a survey of the literature one contrasts the past and present, one seeks for an explanation of the difference between the two and asks why there is apparently such a vast chasm between the books on natural history, on technical art, on medical practice of the previous times and the books now. The explanation must be sought for in the history of the arts, and sciences, and medicine, and natural history respectively, and then it will be found that there is no chasm to bridge over, but that by slow steps the old has yielded age after age, little by little to the new, that the progress has never ceased, though at any one point it may be almost imperceptible, that truth has been arrived at only after much labour by many workers, and that it is only when stages of knowledge separated by centuries are compared with each other that the advance is perceived, the assured advance which is the encouragement for the searcher ever to go on.



INDEX

TO

ON HISTORIES OF INVENTIONS AND BOOKS OF SECRETS.

PARTS I.-VI., READ TO THE ARCHAEOLOGICAL SOCIETY OF GLASGOW, 1882-1888.

BY

JOHN FERGUSON, LL.D., F.S.A. LOND. AND SCOT.,
REGIUS PROFESSOR OF CHEMISTRY IN THE UNIVERSITY OF GLASGOW.

GLASGOW:
Printed at the Unibersity Press by
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BY

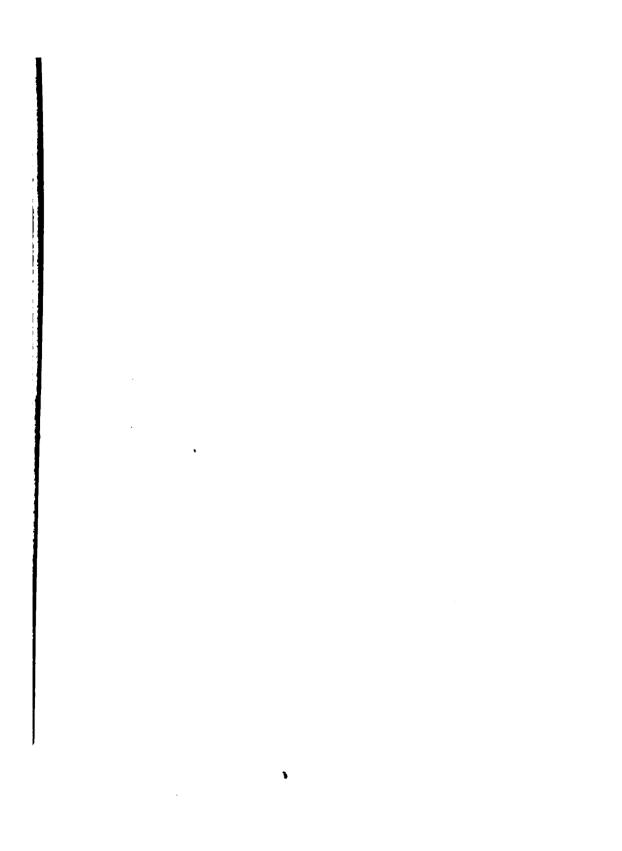
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NOTE.

To the original issue of the first and second parts (1882-83, 8vo) there was added an alphabetical list of the books described in them, my belief at the time being that the research was ended. How erroneous that belief was, later experience showed me. The subsequent parts were not indexed as they appeared, because I kept in view the compilation of a table like the present when the series was presumably finished. This was accomplished at the end of the sixth part, and although since then I have printed some supplements, it is convenient to regard the first six parts as complete in themselves. Anyhow, whether they be or not, they are not of much use without an index of some kind, and this I have here endeavoured to supply.

It is arranged alphabetically by authors, the titles are made as brief as possible, and short collations are given. Only the books which I have examined are included, so that the index does not exhaust the editions mentioned in the text.

While the index has been drawn up to suit the author's reprints, the following table will enable anyone to refer to the corresponding page in the *Transactions* of the Society:

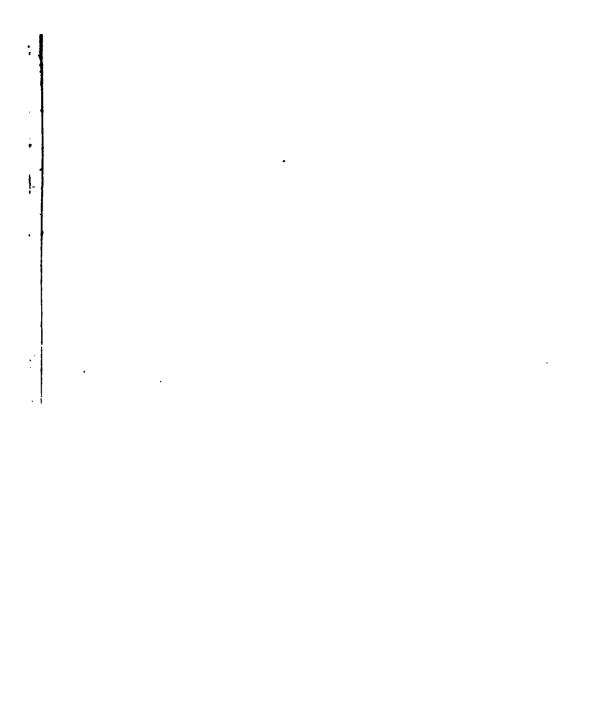
Part I.	Transactions,	8vo.	Vol	II., pp.	180-197.
Part II.	,,			"	229-272.
Part III.	,,	New	Series, 4to.	I.,	188-227.
Part IV.	"			,,	301-336.
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To which must be added: Account of a copy of the first edition of the "Speculum Majus" of Vincent de Beauvais, 1473; Supplement to Part II. printed in the New Series, Vol. I. pp. 165-187.

The only confusion that may arise is in connection with the reprints of Parts I. and II. in quarto which I had made in 1896. To save trouble I have given references to both the 8vo and 4to issues, distinguishing the latter by an asterisk.

J. F.

GLASGOW, February 20, 1898.



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	De Secretis Mulierum. Amstelodami, 1669. 24mo, pp. 329 [6, 1]. Second issue.	III. 27
	Von den Geheimnüssen derer Weiber wie auch von den tugenden derer Kräuter, und den wunderwercken der Welt. Nürnberg, 1678-1701. 12mo, pp. [2] 550 [23, 1 blank].	III. 29
	De Secretis Mulierum. Amstelodami, 1702. 24mo, pp. 329 [6, 1].	III. 27
	De Secretis Mulierum; or, The Mysteries of Human Generation Fully Revealed. Written in Latin by Albertvs Magnvs. Faithfully rendered into Englsh (sic) by, the late, John Quincy, M.D. London, 1725. (Price 2s.) 8vo, pp. vili. [4] 108.	III. 3 0
0	Von den Geheimnüssen derer Weiber. Nürnberg, 1725. 12mo, pp. 550 [23, 1]. Engraved title.	III. 29
	Les admirables Secrets d'Albert le Grand. A Cologne, 1722. 12mo, pp. xx. 284. Engraved title and four plates. I. 6, note; 1 ° 9, note	; III. 28
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	Les admirables Secrets d'Albert le Grand. Lyon, 6518. 12mo,	III. 28

See Sucrass (Las) des Dames.

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ALBERTUS MAGNUS DER ANDERR. See FISCHER (EBRRHARD HRINRICH).

ALBERTUS PARVUS.

Secrets. Lion, 1729. 12mo, pp. [12] 252. 10 engravings.

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Secrets Merveilleux de la magie naturelle & cabalistique du Petit Albert. A Lion, 1743. 12mo, pp. [12] 252. 10 engravings.

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Sec Grands (La) et Veritable Science Cabalistique.

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ALESSIO.

De' Secreti del Reverendo Donno Alessio Piemontese, Prima parte, diuisa in sei libri.... Ora in questa seconda editione dall' autor medesimo tutta ricorretta, & migliorata. Et aggivntovi nel fine d'ogni libro molti bellissimi secreti nuoui. In Venetia, 1557. 4to, pp. [24] 191 [1].

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- De' Secreti. Prima parte, diuisa in sei libri. Seconda Editione. In Lyone, 1558. 16mo, pp. 392 [30]. II. 48; II* 33
- De' Secreti. In Venetia, Presso Giorgio de' Caualli, 1568. 8vo, Prima Parte, ff. 155 [11, 2 blank]; Seconda Parte, ff. 76 [8]; Parte Terza, ff. 48 [4]. I. 11; I* 13; III. 35
- D. Alexii Pedemontani De Secretis Libri Sex Mira qvadam Rervm Varietate Referti ex Italico in latinum sermonē nunc primum translati. Per Ioannem Iacobum weckerum, medicum. Basileae, Anno.m.d.lix. 8vo, pp. [16] 279 [1 blank, 22].

V. 30

De Secretis libri, mira quadam rerum varietate vtilitateq'; referti. Basileae, 1560. 8vo, pp. [14, 2 blank] 354 [29, 3 blank].

II. 41; II * 26; V. 31

- De Secretis libri septem, a Ioan. Iacobo Veckero ... ex Italico sermone in Latinum conuersi, & multis bonis secretis aucti.

 8vo, pp. [14, 2 blank] 480 [46, 2 blank].

 II. 41; II * 26; V. 32
- Kunstbuch ... vö mancherley nutzlichen vnnd bewerten Secreten oder Künsten, ... in Teutsch gebracht durch Doctor Hans Jacob Wecker. Basel, 1570. 8vo, pp. [48] 462 [1, 1 blank]. III. 38; V. 33

Kunstbuch inn Teutsch gebracht, durch Doctor Hanss Jacob Wecker.	
Without place (Basel?), 1573. 8vo, pp. [48] 462. Der ander Theil: [8] 274 [22]. II. 41; II * 26; III.	22. V 22
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The Secretes of the Reverende Maister Alexis of Piemovnt. Containing excellente remedies against divers diseases, with the manner to make distillations, fusions and meltynges. Translated out of Frenche into English, by Wyllyam Warde London, 1558. 4to, ff. [7, 1 blank] 123 [2] [10].	III. 36
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The Secretes Newlie corrected and amended. London, 1580, 1578. 4to. Part I., 1580, ff. [6] 117 [11]. Part II., no date [1580], ff.	
75 [5]. Part III., 1578, ff. [1] 75 [9].	III. 37
The Secrets of the reuerend Maister Alexis of Piemont, containing excellent remedies against diuerse diseases, wounds, and other accidents, with the maner to make Distillations, Parfumes, Confitures, Dyings, Colours, Fusions, and Meltings. A worke well approued, verie necessarie for euerie man. Newly corrected and	

amended, and also somewhat inlarged in certaine places, which wanted in the first edition. Translated out of French into English by William Ward. Imprinted at London by Peter Short, for Thomas Wight, 1595. Small 4to, ff. [6] 348, [14].

I. 11, note: I* 13, note: III. 38

The book is in four parts, with title pages—included in the pagination—to each. The first three bear the name of Ward. The fourth is as follows:

The fourth parts of the Secretes of Alexis of Piemont, containing sixe hundred four score and od experimented medicins, pertaining to physick and chirurgery, long time practised by him and in his latter daies published to an vniuersall benefit, having vntill that time reserved it only to himselfe, as a most privat and pretious Iewel. Translated out of Italian into English, by Richard Androse.

ALMELOVEEN (THEODOR JANSSON VAN).

Inventa Nov-Antiqua. Amstelædami, m. Dc. LXXXIV. 8vo, pp. [32] 249 [7]; [6] 85.

V. 7

ANDREE OF ANDRIESSEN (SYMON).

Kunst Boeck. Nyeulijck wten Alchemistichschen gront vergadert. Aemstelredam, 1549, printed 1551. Small 8vo, ff. [1] liij [vi]. I. 13: I* 15

The last leaf contains the emblem of Cornelis Karelsen, for whom the book was printed: a hooded falcon perched on the branch of a withered tree, with the monogram of C. K. in the lower right hand corner. On the verso of the title is the picture of a man working in an apothecary's ahop.

Een schoon Tractaet van sommighe werckingen der Alchemistische dinghen, ... Noch een schoon Tractaet Boecken, inholdende van alderley verwen te maecken. Gedruckt toe Reess. 1581. Small 8vo, ff. xxviij. [4].

I. 13; I • 16

Een schoon Tractaet van sommighe werckinghen der Alchimistische dingen, ... Noch een schoon Konst-boec, seer nutlick voor allen Werclieden. Ghedruckt t'Amstelredam. 1600. Small 8vo, ff. xxvj; xxvj; [4].

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See Booke (A) of Secrets. See Ettliche Künste. See Kertemmacher (Petrus). See Kunst-büchlein. See Profitable (A) Booke. See Rechter Gebrauch d'Alchimel.

ARISTOTLE.

Aristotle's Secret of Secrets contracted.... Formerly Translated out of the original Greek into Latin, and divers other Languages; and ... is now faithfully rendered into English. London, 1702. 16mo, pp. viii. 87.

IV. 27

ART'S MASTER-PIECE: Or a Companion for the Ingenious of either sex....

To which are added many curiosities and rare Secrets. The Third
Edition, with Additions by C. K. London, no date. 12mo, pp.
[1-6] 7-152 [4].

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et's Treasury of Rarities. See White (John).	
Breve Compendio di Maravigliosi Secreti Approuati con felice successo nelle Indispositioni Corporali Con vn Trattato per conseruarsi in sanità. In Venetia, M. DO. XCII. 12mo, pp. [20] 316.	
iacon (Roger). Epistola de secretis operibus naturæ et artis, et de nullitate magiæ.	I. 6; I* 8
Reflections Upon Learning, Wherein is shown The Insufficiency Thereof, in its several Particulars The Third Edition corrected. By a Gentleman. London, MDCC. 8vo, pp. [16] 240.	VI. 30
Traité de l'Incertitude des Sciences. Paris, 1714. 12mo, pp. [23, 1 blank] 347 [4, 1 blank].	VI. 30
ATE (JOHN). The Mysteryes of Nature, and Art: conteined in foure severall Tretises: partly collected, and partly of the Authors Peculiar Practice, and Invention, by J. B London, 1634. 4to, pp. [10] 1-45 [1 blank]; [2] 53-112 [2] 121-192. 9 Plates. Wants title to Part II.	VI. 14
The Mysteries of Natvre, and Art The second edition; with many additions unto every part. London, 1635. 4to, pp. [12 including Portrait and engraved Title] 288 [16]. 2 Plates in Part I.	VI. 15
The Mysteries of Natvre, and Art The third Edition with many Additions. London, 1654. 4to, pp. [9] 6-221 [9], Advertisements [6].	VI. 15
Beckmann (Johann). Beyträge zur Geschichte der Erfindungen. Leipzig, 1786-1805. 5 vols. Small 8vo. I. 2, note;	I * 4, note
A History of Inventions and Discoveries, Translated by William Johnston. Second Edition. London, 1814. Four Volumes, 8vo:—I. pp. xvi. 488; II. pp. iv. 419; III. pp. iv. 481; IV. pp. iv. 682.	III. 17
A concise history of Ancient Institutions, Inventions, and Discoveries in science and mechanic art; abridged and translated from The Beyträge of Beckmann In two volumes. London, 1823. 8vo. I. pp. xvi. 404; II. pp. xi. 401 [1].	I* 4, note
A history of inventions, discoveries and origins Translated by William Johnston. Fourth Edition by William Francis and J. W. Griffith. London, 1846. 8vo. I. pp. xxiii. 518; II. pp. xii. 548. 2 portraits.	I* 4. note

Birlinguccio (Vanoccio).	10 74 10
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Pirotechnia. Li diece Libri della Pirotechnia. Vinegia, 1550. Small 4to, ff. [8] 167 [1]. I. 10, note;	
Pirotechnia. Venetia, 1559. 8vo, ff. 345 [7].	. 10; I* 13
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Ses Andree of Andriessen (Symon).	
BREMER (WILLIAM). The Englishmans Treasure: with the true Anatomic of Mans bodie: Compiled by Thomas Vicary. Whereunto are annexed many secretes appertaining to Chirurgerie, Also the rare treasure of the English Bathes, Written by William Turner, Gathered by William Bremer London, 1596. 4to, pp. [10] 110.	•
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BREMNER (DAVID).	
The Industries of Scotland. Edinburgh, 1869. 8vo, pp. [2] viii. 535. I. 3, note;	I* 5, note
Brunewick (Jherom).	
The Vertuose boke of Distyllacyon of the waters of all maner of Herbes, fyrst made by Master Jherom bruynswyke. London, 1527.	V. 25, note
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De Atramentis evivsevnqve generis. Venetiis, 1619. Small 4to, pp. [24]	16; I* 18
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Historia y Magia Natural, o Ciencia de Filosofia Ocvita. Madrid, 1692. 4to, pp. [12] 342 [16].	IV. 25
C'EST LE SEGRET DE LHYSTOIRE NATURELLE côtenant les merueilles et choses memorables du monde. Paris, 1527. Small 4to, ff. [xii.] cv.	V. 23
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Cyclopedia: or a Universal Dictionary The whole intended as a Course of antient and modern Learning. Second Edition. London, M.DOC.XXXVIII. 2 Vols. Folio.	IV. 29
Cyclopedia. The Fourth Edition corrected and amended. 2 Vols. London, 1741. Supplement. 2 Vols. London, 1753. Folio.	IV. 30
Cyclopedia with the Supplement and Modern Improvements incorporated in one Alphabet. In 4 vols. London, 1786-89.	IV. 30
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Il Vago, & diletteuole Giardino Et in questa quinta editione accres di noua aggiunta, & con diligenza emendato. In Vicenza, MD 4to, pp. [12] 468 [42, 2 blank]; [24] 232.	
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Fisonomia, y varios secretos de Naturaleza. Paris, Libreria de Gas Hermanos, 1858. 16°, pp. 320.	rnier IV. 17
CORTESE (ISABELLA). I Secreti ne' quali si contengono cose minerali, medicinali, artefic & Alchimiche, & molte de l'arte profumatoria, Con altri bellis Secreti aggiunti. Venetia, 1565. 8vo, pp. [16] 207 [1].	
I Secreti, Ne' quali si contengono cose Minerali, Medicinali, Prof Belletti, Artifitij, & Alchimia; con altre belle curiosità aggiu Di nvovo ristampati, e con somma diligenza corretti. In Ven 1625. Small 8vo, pp. [16] 206.	inte.
Secreti varii. Venetia, 1677. 8vo, pp. [24] 204 [4 blank].	III. 40
DIOTIONARIUM POLYGRAPHICUM: or the whole body of arts regularly diges [Two volumes.] London, 1735. 8vo. I. Title, preface [pp. Sigs. B-Nn 6. Frontispiece and 30 plates. II. Fly-leaf and T. Sigs. B-Ll. 5. 1 leaf of advertisements. 24 plates.	. 4],
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Ausserlesene, seltzame philosophische Geheimnüsse und chymische perimente. Hamburg, 1684. Small 8vo, pp. [8] 269 [11]. 4 pi and portrait.	

Theatrum Chimicum, ofte geopende deure der Chymische Verborgent-	
heden Met een vervolg over de Chymische Verborgentheden	
door den Ridder K. Digby. Amsterdam, 1693. Small 8vo, pp.	. TT # 07
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FALLOPPIO (GABRIELE). Secreti Diversi & miracolosi. In Venetia, 1578. Small 8vo, pp. [32]
366 [2]. I. 11; I*14
Kunstbuch: von mancherley nutzlichen, bissher verborgnen, vfi lustigen Künsten. [Augspurg], 1588. 8vo, pp. [16] 496 (for 466) [46]; [43, 5 blank]. II. 41; II* 27
Wunderlicher menschlichem Leben gewisser, vnd sehr nutzlicher Secreten, Drey Bücher. Franckfurt am Mayn, 1641. 8vo, pp. 474 [29, 1 blank]. I. 11; I* 14
FAUSTINUS (PERISAULUS). De Triumpho Stultitiae. Venetiis, 1524. 8vo, ff. [59, 1 blank]. VI. 27
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Certaine Secrete wonders of Nature Gathered out of divers learned authors as well Greeke as Latine, sacred as prophane. By E. Fenton. London, 1569. 4to, ff. [6] 148. IV. 8
Fioravanti (Leonardo).
Del Compendio de I Secreti Rationali libri cinque. Venetia, 1564. 8vo, ff. [20] 183 [1].
Del Compendio de i Secreti rationali libri cinque. In Venetia, 1571. 8vo, ff. [21, 1 blank] 187 [1 blank]. Portrait of the author on the verso of the preliminary leaf 21. I. 12; I* 14
A Compendium of the rationall Secrets, of Leonardo Phiorauante Bolognese, deuided into three Books. London, 1582. 8vo, pp. [16] 128, 142 [2]. V. 37
Compendium oder Ausszug der Secreten. Darmbstadt, 1624. 8vo, pp. 399. I. 12; I*14
De' Secreti Rationali Libri cinqve. Venetia, 1640. 8vo, ff. [24] 190 [2 blank]. III. 40
Three exact pieces viz. his rational secrets. London, 1652. Small 4to, pp. [8] 16 [2] 180; [6] 106; [10] 92; [12] 75. I. 12; I* 14
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Albertus Magnus der Andere. Das ist: Geheimnisse der Natur und
Kunst vor alle Stände In zwey Theilen. Altona und Leipzig 1797. 8vo, I. pp. [16] 200, Plate; II. [10] 182. IV. 33

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Le Livre Rouge. Paris, 1841. 12mo, pp. 144.	IV. 37
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FOUNTAIN (THE) OF KNOWLEDGE OF British Legacy, containing among upwards of Two hundred other Curious Particulars the Indian way of marking on silk, London, n.d. 8vo, pp. [2] 123. Index wanting.	IV. 33
Gentleman's (The) Companion: or Tradesman's Delight. Containing, The Mystery of Dying in all its Branches The Art of Drawing, the quality of Metals The Method of curing and preserving all Sorts of Wines London, 1735. 12mo, pp. 259 [27].	VI. 25
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BIBLIOGRAPHICAL NOTES

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HISTORIES OF INVENTIONS

AND

BOOKS OF SECRETS

FIRST SUPPLEMENT

BY

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> GLASGOW STRATHERN & FREEMAN, 145 WEST NILE STREET SIDERENCEV



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MDCCCXCIV

Read to the Archaelogical Society of Glasgow, 15th March, 1894.

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Fresident of the Society.

1. When to the title of the sixth part of my "Bibliographical Notes on Books of Secrets," which was read to the Society in January, 1888, and was printed in 1890, I appended the word "Conclusion," I knew, and stated categorically, that it was an arbitrary stop which I was making. Strictly speaking, I had come only to the end of the books which I had been able to inspect, not to the end of those which existed; still less had I exhausted all that there was to say even about those which had been enumerated. My opinion, however, was that these papers contained enough to indicate generally the character and the extent of the early literature of the arts and of technology, and I was content to let my consideration of it end there; but, during the last four or five years, I have found that the subject would not rest, but kept itself in evidence whether I wished it or not. Books, which I had not heard of previously, have come unexpectedly into my hands; editions, which I knew of by repute but had not seen, have thrust themselves upon my attention; copies of books mentioned in my earliest papers, a dozen years ago, have emerged from their hiding places after I had given up all thought of them; of certain books which I was fain to revere, as nearly, if not altogether unique, other copies have risen up to

I Transactions, N.S., Vol. II., p. 1.

spoil my descriptions and chill my exultation. One result hitherto of my experience in Bibliography is to make me deny the existence of a unique book. There may be many so considered, but their single-blessedness cannot be demonstrated, and I take leave to doubt it, as a cardinal principle of the science. The duty of every one, whenever such a statement is made, is to produce evidence—in the form of at least one other copy of the unique book—that it is incorrect.

- 2. When I have contemplated the amount of material which has thus accumulated, I have found myself unable to ignore it. To do so would be to leave the first research not so complete as it is in my power to make it, and I have thought, therefore, that an account of the books which I have acquired within the last half-dezen years is a suitable, if it be not a necessary supplement to the original series. To obtain a proper survey of this material, however, I have been forced to deal with it in two ways. So much has been amassed relative to certain authors and to certain books, that the only suitable method of exhausting it all seems to be to devote a special monograph to such of them as deserve it. The majority of the books, however, which I have recently collected, do not require this elaborate treatment, and I have thought that these might be disposed of now in the manner pursued in my previous papers. This is all the more appropriate, as the larger proportion of the works to be noticed consists of different editions of treatises already referred to.
- 3. The collection of as many editions of a book as possible, even when there is no variation in the text or contents, will not be regarded with much, if any, favour by those who think that books have lost all their value as soon as a new edition appears, and that old editions should make way for new as rapidly as possible to supply the wants of "The Student," "The General Reader," and "The Reading Public." The holders of such views may not be aware that these phrases, wide as they are, do not include all those who make use of books. There are antiquaries, bibliographers, printers, students, who require to consult early editions, and those who are not "general" but "special" readers, who, from such a collection, may gather information on a variety of topics, not only connected with their own subjects, or with the author, but with the history of the book itself, and with the history of the

science or of the stage of mental development of the time when it was in use, or with other subjects which need not be particularised at present. Only this may be said, that the librarian who gets rid of edition n as of no further use, because he has got edition n+1, knows neither his business nor his duty.

Whatever view, however, be taken of this matter as to its intrinsic importance, the fact remains that different editions of certain books do exist, and in the present case I have no alternative but to record as many of them as it has been possible for me to become acquainted with. My aim in these papers is not to ignore the wide circulation and active life of a treatise on the arts, or to suppress the fact of its numerous editions. It is just the reverse: to give the fullest account of it that is possible for me to do, to enumerate all the editions of as many works as I can inspect. The intention is to demonstrate the extent and amount of the early literature on the arts and sciences coming under a certain appellation, and thereby the wide diffusion of interest in these topics themselves.

4. The absence from the list of any notable number of quite new books of "Secrets" under any category, and the presence of editions of so many works already enumerated, indicates, I think, that my previous lists are fairly full in the matter of separate treatises, however far they may be from comprehending all editions. I have no doubt, however, that there are still collections of "Secrets" of medicine and the arts which have escaped me, but there cannot be so many as when I first took the subject up. Of some of the books, too, there are editions which I have not seen, even in large libraries, and which must, therefore, be of very rare occurrence. Some, even, of the books to be described now are of very great rarity indeed. Specially so is the first edition of the second part of the Treasure of Evonymus, edited by Wulphius, for the copy described in this supplement is the only one I have come across in the last dozen years. Some of the editions of Polydore Vergil's History of Inventors, of Alexis' Secrets, some of the works on the Powder of Sympathy. the little tract of André le Fournier, and several others are extremely scarce and very fascinating on that account. They display the knowledge of the time; they give a clue to what were the topics of interest; the number of editions shows what authors were most appreciated, and were thought to have

dealt best with their subjects. To enumerate all the rare books, however, would amount almost to a recapitulation of the whole paper; there is hardly a book mentioned in the following to which the epithet cannot be attached.

As in the original papers, the subject in this supplement is arranged in two divisions—(1) Histories of Inventions; (2) Books of Secrets. The books are arranged chronologically by the dates of their authors, so far as I have been able to ascertain them. This has the advantage of displaying the books on various subjects which were contemporaneous, and thereby the state of knowledge.²

I.—HISTORIES OF INVENTIONS.

5. First in the list of histories comes, of course, Polydore Vergil's book De Inventoribus Rerum. The investigations which I was led to undertake with reference to this book became so extensive that I was forced to devote a monograph to it. The first draft of this was communicated to the Society of Antiquaries of London on the 18th of June, 1891. The paper, however, was so much altered subsequently by additions that it has been necessary to treat it as a distinct work. The complete bibliography does away now with the necessity even of a summary, nevertheless I may mention the dates of the different editions which have come into my possession since my last reference to the book was printed in 1889. In the following, the second column and all those marked with an asterisk in the first column are in my own collection.

To save constant repetition, references will be made to the six parts of the original series of Notes, and not to the volumes of the Transactions of the Society. The following shows the volumes in which the different parts appear:—

Part I2	Transactions,	•		•	•	Vol. II.	pp.	180-197.
11.—	**					Vol. II.	pp.	229 272.
III.—	,,		New	Seri	ics,	Vol. I.	pp.	188-227.
IV.—	**	•				,,	pp.	3 01-336.
V.—	"	•			•	,,	pp.	419-460.
VI.—	20					Vol. II.	pp.	1-33.

LIST OF EDITIONS DOWN TO 1889.	Editions acquired since 1889.
* 1499.	
1503.	
*	1507.
* 1509. Senent's Edition.	
* 1513.	
13134	1516.
	1521.
	1525.
* 1528-29,	
	1532.
	1540 .
	I 543.
1544- * 1546 April.) 7 and an	1546 Gryphius.
1546 April—January. London.	Han's Edition.
1546 April—January. R. Grafton.	
1546 Basil.	
* 1550 Venice, Italian.	and Dail
* 1551.	1550 Basil.
*33**	1558.
	1560.
* 1563.	
* [1570.]	
	1575.
	1576 Lyons, French.
	1576 Rome.
4 0	1582.
1 1585.	1587.
	1590.
	1599.
1604.	-377-
* 1606 .	
1626.	
* 1644.	
* 1659.	
* 1663.	
* 1671.	
* t68o,	
1868.	

The copies in the second list are rare, and two or three may be called unique, in so far as they are the only copies known at present, and are referred to nowhere else. The majority are omitted by the bibliographers,

and are not enumerated by Beckmann in his valuable catalogue.² In the second list it is curious that the date of every copy is prior to 1600. In the first list the majority of dates are also before 1600. This accords with my observation that the later editions are less common, and that those of last century are the hardest to get. Of certain of them I have never been able to see a copy in any collection. This may be accounted for in various ways. One may suppose that of the earlier editions large numbers were printed, while of the later there were only limited issues. On the other hand, the book may not have been latterly in request, and the copies were destroyed wholesale; if so, then of certain editions not one appears to have escaped.

My own is the largest collection I know of in the meantime, containing, as it does, 37 numbers, besides duplicates of the editions of 1499, 1529, 1546, (1570), 1644, 1663, and some others. The British Museum contains 32; the Bibliothèque Nationale 20. Other libraries contain two or three, or may get the length of half a dozen, or even of a dozen. All these together, however, represent but a part of the subject, for there is on record upwards of a hundred different editions: of which some 75 have been described from actual copies in my monograph referred to. The remaining fourth I have not seen. A full account of all these editions, including an analysis of the places where and dates when they were printed, and a consideration of a number of questions relating to the book's history, presents a considerable amount of interest to the bibliographer. Everything conspires to show that Polydore Vergil's book was a popular and prominent one.

6. The following little tract, which is in Sir William Hamilton's collection in the University Library, was overlooked by me in my former notices, though it is mentioned by Beckmann and described in considerable detail.

Iohannis Matthæi | Lvaenais | Libellys | De Rerym In- | ventoribys | Ex recognitione Aug. Iustiniani | Episcopi Nebiensis. | M. Antonii Sabellici | De Rerym Et Artiym | inventoribus Poëma. | * | Hambyrgi, | In Bibliopolio Michaelis Heriogii. | Anno CIO IOC XIII.

Small 8vo. Signatures A to E in eights; pagination [2] 76 (which is an error for 78, because 61-62 are repeated).

¹ Transactions of the Archaelogical Society of Glasgow, 1883, II. p. 233.

Collation:

- (A 1) Title, verso blank.
- (A 2) Epistola Nuncupatoria of Justinianus to Robertus Geduinus, "Regis Francorum à fecretis" ends on A 3 recto. (p. 3) dated Parisiis, 16 Cal. Málas. MDXX.
- A 3 verso. Text of Matthæus' tract begins and ends E 3 verso, pp. 4-66 (sic) E 4 recto. Sabellicus poem, ends E 8 verso, pp. 67-76 (sic)

In his collation, Beckmann (Geschichte, 1792, iii. p. 559), simply gives the pagination as numbered incorrectly, 76, and omits the title leaf.

What little is known about the author is gathered from Justinianus' preface. Joannes Matthæus belonged to Luna, a town in the extreme north-west of Tuscany, a famous place, but at the beginning of the sixteenth century in ruins. The harbour still remained one of the best according to sailors, but the name was changed from Luna to Portus Veneris. About the close of the fifteenth or beginning of the sixteenth century Matthæus was born, and was distinguished as a skilful rhetorician and first-rate antiquary. He wrote a book, De mulicribus claris, which, says Justinianus, "we will make accessible to all students very soon," This book, edited by Justinianus, was printed in 1520 at Paris, and it is commended for its uncommon learning and wide interest.

Matthæus began a work, De rerum inventoribus, which, although unfinished, Justinianus resolved to print, so that it might not be lost. Then it occurred to him to dedicate it even in its inchoate state to Geduinus, and after the customary compliments, he concludes: Parvum verò mole libellum eo animo accipe, quo accipere soles cuncta seu parva, seu magna, quæ ab amicis proficiscuntur. Vale. Parisiis. 16 Cal. Maias, MDXX.

The Peplus Italia of Matthæus, Paris, 1578, was re-printed by Fabricius, Conspectus Thesauri Litterarii Italia, Hamburgi, 1730, p. 369, and Jöcher (Allgemeines Gelehrten-Lexicon, Leipzig, 1751, III. col. 287-8) quotes Latin poems by him. They are the Psalms, sacred poems, hymns and poems, published at Paris by Joannes Auratus, in 1576.

As for the present tract it would seem as if it had been printed about 1520 from the unfinished MS. Beckmann never saw a copy, and the Hamburg

² Bibliotheca Instituta et Collecta . . . a Gesuero . . . amplificata per Johannem Jacobum Frisium . . . Tiguri, 1583, p. 394,

edition of 1613, he says, is so rare that the only copy he could meet with was in the ducal library at Wolfenbüttel.

Lessing (Kollektaness, Berlin, 1790, Vol. II., p. 142) mentions Matthseus, and expresses his indebtedness to him for notes of certain inventions and discoveries. What he says about the author himself is taken from Justinianus' preface and from Jöcher, and he seems to consider him the earliest modern author on the subject. Supposing the work had been printed in 1520, involving its being written say even twenty years earlier, it would still be subsequent to Polydore Vergil, though anterior to Sardi, who was only born in 1520. It is not easy, therefore, to explain how Lessing has placed him prior to Polydore Vergil.

7. The history of Alessandro Sardi, which was intended as a supplement to that of Vergil, is usually printed along with the *De Inventoribus Rerum* of the latter. It will be found, for example, in the editions of 1600, 1604, 1606, 1613, 1626, 1726. In my first account of it (Part II., p. 242) I had only these 1604 and 1626 conjoined editions before me, and Chappuys' French translation of 1584, an edition to which I have observed no allusion anywhere, but, as I then stated, the first edition was printed at Mayence in 1577 as a supplement to a work *De ritibus gentium*. This work first appeared under the following title:

Alexandri Sardi | Ferrariensis, | De Moribvs Ac Ritibvs | Gentivm | Libri III.|

Nunc primum in lucem editi. | Quod opus quanta rerum uarietate refertum, |

quamq; omnibus ingeniis utile ac necessarium | sit, sequens elenchus, & auctoris
processium | indicabunt. | Cum Priullegiis. [Device.]

Venetiis, | Ex officina Stellæ Iordani Zilleti, | 1557.

Small 8vo. *, A.Q in eights, R in six; or pp. [16] 265. [1 with register and colophon, I blank, I with device.] The dedication is to Pope Iulius Cananus, not dated.

It is a very prettily printed book.

The second edition is entitled:

De Moribus ac Ritibus Gentium Lib. III. Moguntia, Per Franciscum Behem, Anno MDLXXVII.

It is in small 8°, *, A to N in eights, or pp. [16] 207 [1 blank], and is printed in italics.

The edition of Sardus, 1604, mentioned in the British Museum Catalogue under *Plinius* [721.b.23(2)], is merely the appendix to Stoer's edition of Polydore Vergil of that date, bound separately.

Then follows, with separate title page, signatures, and pagination, the tract De Inventoribus as follows:

Alexandri Sardi Ferrariensis, De Rervm Inventoribvs, Libri Dvo. Iis Maxime, Qvorvm Nvila mentio est apud Polydorum. In Qvibvs Omnivm scientiarum, omniums servem principium quoddam quàm brenissime continetur.

Mogyntiæ Per Franciscym Behem, Anno M.D.LXXVII.

Small 8°. a to d in eights, e in four, or pp. 64 [5, I blank, 2]. Printed in italics.

a I. Title, verse is blank.

a 2 to d8. Text, pp. 1-64.

c 1-3 recto. Index. At the foot of c 3 is the imprint: Coloniae Agrippinae, Typis Godefridi Kempeniis.

e 3 verse is blank, and e 4 (blank?) is wanting.

This book is in the British Museum [802.b.9(x)], the second number in the same volume being, by the way, the rare work of Pastregicus, which I formerly described in detail. I have a copy of the book *De rerum inventoribus* with that date, and so far as appearances go it might pass of course for a separate publication.

If this be the first edition, it is certainly curious that it should have appeared at Mayence. That the work, *De Ritibus Gentium*, which was first printed at Venice in 1557, should be reprinted at Mayence is intelligible, but how an unpublished work by the author should be appended to it is not quite so intelligible. One would have expected the first edition of a book by an Italian, which was meant to supplement a work by another Italian, to have appeared somewhere in Italy, in Ferrara most likely, as being the place where the author spent his life; but, if not there, in Venice, where the previous works of both the authors concerned had been printed.

There seems, however, to be no good ground for doubting it, if any reliance can be placed on the following.

The tract, De Ritibus, is dedicated to Pope Julius, and the dedication is dated 1557. In the 1577 edition there is another dedication to the same pope, in which it is said that after twenty years the book returns to him once again, only more correct in this German edition than in the former one at Venice, and in order that this iteration may not be distasteful, there is now added by way of novelty a tract on those inventions which were omitted by Polydore. This, therefore, would seem to be actually the first issue of the tract,

unless the whole thing, preface and all, has been reprinted haddly from an Italian edition of the same or an earlier date, only with the necessary change involved in the adjective "German." I have seen no notice of an Italian edition of or prior to 1577, and therefore the Mayence edition may be the first, with Sardi's actual supervision. This, too, is possible, though remarkable in the case of a man who seems never to have gone from the town where . he lived and died. But with regard to these dedications there is something of a hitch. Pope Julius III. bore rule from 1550 to 1555, in which year he died. Although not printed till 1557, the author may have written the dedication before 1555, and may not have seen any need to change But how he could re-address it to the same Pope, twenty-two years after his death, not only taking no notice of that fundamental change, but actually saving that to keep him from being bored by the sight of this old book, he had added something new, is a problem for which I have no solution handy. I have found a nearly parallel case in Vigani's dedication. Is it a way Italians had to dedicate their books to patrons who had been dead for a quarter of a century or so? This question, I think, has not been discussed by Mr. Wheatley in his book about Dedications to Patron and Friend.

8. Although the *History of Inventions*, by Guido Panciroli, was originally written in Italian, it first appeared in the Latin version of it, which was made by Heinrich Salmuth. While, therefore, on the ground of chronology that translation ought to be taken first, it seems more correct to describe the Italian original from which the Latin was presumably translated.

It is as follows from the copy in the British Museum, 7955. c. 32:-

Raccolta | Breve | D'Alcvne Cose Piv | fegnalate c'hebbero gii antichi, e d'alcune | altre trouate da moderni. | Opera Dell' Eccell. S. Dottore | Gvido Panciroli | Da Reggio. | Con l'aggiunta d'alcune confiderationi curiofe, & utili di | Flavio

² Formerly (Part II. p. 243), I called him Pancirollo, but the true form seems to be Panciroli. There are also two incompatible statements on the same page—the first is that I knew no Italian edition of the work; and then a few lines further on the Italian edition of 1612 is mentioned. What was really meant, though it was so inaccurately expressed, was that I knew no Italian edition prior to 1599, and concluded that Salmuth therefore must have translated from MS. Besides, I had not examined the 1612 edition, and did not know whether it was the original or a retranslation from the Latin, which was not impossible.

^{* [}See Note on Panciroli's book at the end of this paper.]

Gvaltieri da Tolentino, Dottor Teologo. | Dedicata al Serenifsimo | D. Carlo Emmanyele | Duca di Sauoia &c. | Con Privilegio. | [Device] |

In Venetia, M D C XII. | Press Bernardo Giunti, Gio. Battista Ciotti, & Compagni. | 4°, or large 8°. °, †, ††, in fours; A to Z, Aa to Ee in eights, or pp. [24], 443, [1]. Collation:

*I Title.

*2 recto: Gualtieri's preface to Carlo Emmanuele, from which one gathers that this is the first edition in Italian.

*3 recto: A'lettori.

*4 recto: Panciroli's address to Carlo Emmanuele.

†1 recto: Ordine de Capi.

ta verso: Indici delle cose, ends tt4 verso.

A1 recto, p. 1: Text begins, and ends Ee 8 recto, p. 443.

E e 8 verso, not paged : Correttione.

From the MS. of this work Salmuth must have made his version, which was published at Amberg in 1599-1602. This book is uniform in size and style with the later 8vo editions, only it is more neatly and elegantly executed. Not that it is of any great beauty, but the later editions degenerated both in paper and printing. There is a copy of the 1599 volume in the British Museum.

On the present occasion I have the second edition of both parts to show. The first volume was printed at Amberg in 1607, by Michael Forster, and the second similarly in 1608, in small 8vo. The volumes are in very commonplace style. The third edition, Amberg, 1612, in 8vo, was formerly described. The fourth (?) edition, Franckfurt, 1622, in 8vo, is also got up in an inferior manner. It is in the Museum (7942. aa. 31). I am not sure if this was the last 8vo edition, but those of 1631, 1646, 1660, are in 4°.

Besides the English translation already described, there is a brief abstract of both parts in French made by Pierre de la Noue, not from the Latin, but from the Italian as well, two editions of which were formerly mentioned, Lyons, 1608, 1617. I have the later edition:

Livre Premier Des Antiquitez Perdves, Et Si Av Vif Representees par la plume de l'Illustre Iurisconsulte G. Pancirol qu'on en peut tirer grand profit de la perte; Accompagné D'Vu Second, Des choses nouvellement inventées & auparauant incogneties. En faueur des Curieux Traduits tant de l'Italien que du Latin en François. Par Pierre De La Nove.

A Lyon, Pour Iaques Gardion, M.DCXVII. Avec Prinilege du Roy. 18mo. Signatures: † in six, A to L in twelves, of which L 12 is blank; or pp. [12 261 [3 blank].

It is rather a poor little book, but it is a scarce one. The above is taken from my own copy. There is another in the British Museum, 1137. b. 4 (1). There is a book by Michael Watson with the following title:

Theatrum Variarum Rerum exhibens Excerpta & Annotata in Libb. de Rebus Memorabilibus Pancirolli & Salmuth. Bremse, clo loc LXIII. in Svo.

There is a copy in the Museum, 1137, b. 6. This is partly a description of Panciroli's history and partly a sort of running commentary on it.

On this book one or two remarks may be made. It is in two parts—lost inventions of the Ancients and newly discovered inventions of the Moderns. From the first edition being dated 1599-1602, I conclude that it was in two distinct volumes, certainly like the second and third editions, and probably like the fourth. My observation is that copies of every edition of the second part are much scarcer than of the first. That may be accounted for in two ways: 1st, fewer copies of it may have been printed in the respective editions; and, the second volume may have been used much more, and so the copies of it may have been consumed. The fact that the second volume referred to new discoveries may have been quite enough to attract attention, while the discoveries of the ancients would be passed by without regard by the majority of readers. They might be interesting to scholars, or antiquaries, or historians, but not to "practical people" who wished to know the latest improvements or inventions.

In some respects the second part of Panciroli's history is even now the more interesting. It is always curious to know when a thing was an absolute novelty, however old it may be now, and it is curious also to see what inventions and discoveries impressed themselves upon a man leading a quiet life in a comparatively small and obscure town. No apology, therefore, is required for selecting the following titles from the contents of the book:

The New World,	Porcelain,	Alchemy,
The Bezoar Stone,	Sugar, Manna,	Rhubarb,
Distillations,	Clocks,	The Mariner's Compass,
Printing,	Paper,	Cypher,
Saddles,	Squaring the Circle,	Cannon,
Greek Fire.	Jousts.	Water Mills,
Bird-catching,	Silk,	Caviar,
Etc.	Etc.	Etc.

Of course, at a later date, some of these subjects got much fuller treatment at the hands of Beckmann. Still, Panciroli tried conscientiously to make his discourse on these and similar themes thorough and attractive. Panciroli's book was, however, handled in somewhat rude fashion by Goguet. In the preface to his work upon the *Origin of Laws*, *Arts*, and *Sciences*, he refers to it in the following terms:

We have a very bad book of Pancirolus's, intituled, Rerum memorabilium fore dependitarium, &c. This is, in general, a very crude indigested compilation, in which he sticks at nothing. The falsest facts and most ridiculous tales are adopted for truths. This work is an example of the greatest negligence, joined to the strongest itch of making a book. In what Pancirolus says of certain arts, which, according to him, were known to the ancients, and have been since lost, there are almost as many mistakes and puerilities as words. The arts which he speaks of, either never existed, or they exist to this day, and in a more perfect state than ever. It would be easy to demonstrate this, if the work was worth the trouble.

Goguet's superlatives require a considerable amount of pruning, before they can be accepted as positively accurate.

9. Some account has already been given of Paschius, who wrote a book on the history of inventions and science. It was the second edition in 4to which was then mentioned, but to complete the account a notice of the first edition was desiderated. This I can now give:

Georgii Paschii Philof. Mor. in Academia Kilonienfi Prof. Ord. Schediasma De Curiosis Hujus Seculi Inventis, Quorum Accuratiori Cultui Facem Pretulit Antiquitas.

Kiloni, Sumptibus Joh. Sebaft. Riechelli, Literis Joach. Reumanni. Anno MDCXCV. Small 8vo. Signatures:)(, A to Y in eights; or pp. [16] 342.

This is a most attractive book, for it tells us what were considered new discoveries just two hundred years ago. Among these, not the least interesting for my present audience is the account of the diving-bell of Professor George Sinclar.

10. One of the most important works for elucidating the arts of the eleventh century is the well-known treatise of Theophilus the Monk. In 1882, when describing the English edition by Hendrie, I had not seen, but could only

z Edinburgh, 1775, I., p. vii.

^{• [}His writings occupy a not inconspicuous place in the "Old Giasgow" Exhibition, which has been opened since the above was read. August 6th, 1894.]

refer to the French edition by Count De L'Escalopier. A copy of that edition has now come into my hands, and one cannot but be satisfied with the very handsome way in which it has been got up. There are two titles, in Latin and French respectively. They are as follows:

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Theophili | Presbyteri et Monachi | Libri III. | Seu | Diversarum Arthum Schodula. |
Opera et Studio | Caroli De L'Escalopier. | Lutetise Parisiorum. | Excudebant
Firmin Didot Fratres, | Via Jacob, 56. | MDCCCXLIII.
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Théophile | Prêtre et Moine. | Essai Sur Divers Arts, | Pablié | Par Le Co Charles De L'Escalopier, | . . . | Et Précédé | D'Une Introduction, | Par J. Marie Guichard. |

Paris, | J. A. Toulouse, . . . 1843.

It is a handsome finely printed 4to, pp. [4] LXXII; I leaf, facsimile of MS.; 314 [1, 1 blank].

This edition contains some preliminary remarks by L'Escalopier on the time at which Theophilus lived, on the nature of his book, and on the scope of the present edition. This is followed by Guichard's elaborate introduction upon the history and contents of the book, and its bearing upon the state of the fine arts in the 12th or 13th century. Then follows the Latin text, with various readings from the MSS., and a parallel French translation. The notes with which the volume closes are arranged alphabetically, and form a sort of brief glossary, though, as the editor remarks, there is much in Theophilus which still requires elucidation. The edition is indispensable for the history of the practical art secrets of the Middle Ages, but even its bibliography would require a dissertation to itself.

11. The following is the most valuable addition I have been able to make to the list of histories of inventions:—

Original Treatises, dating from the XIIth to XVIIIth centuries, on the Arts of Painting in oil, miniature, mosaic, and on glass; of gilding, dyeing, and the preparation of colours and artificial gems; preceded by a general introduction; with translations, prefaces, and notes. By Mrs. Merrifield. . . . In two volumes.

London: John Murray, Albemarle Street. 1849.

8vo. Vol. I. pp. cccxii. 1-321 [1]

Vol. II. pp. v. [i] [323--5] 326-920.

This work ought to have been included among the histories long ago, but it has become rare, and it is only recently that I have been able either to see or get a copy. During all these investigations I have come across no book

of more importance than this for the history of technical receipts, and for elucidating the literature of secrets down to the present time. One can see the sources from which the old compilers gathered their information, not always intelligently, for they were sometimes mere compilers without any practical knowledge either of the materials or processes. One can also see how the results obtained by the old artists and craftsmen by patient trial and practice, and by the desire to make their work as good as possible, have incited their successors to equal them if possible, and how, therefore, their methods and substances have been handed on traditionally from generation to generation. The book is a necessary companion to that of Theophilus, which deals with similar topics.

12. As a set off to the historians who have done their best to display human skill and perseverance in the inventions of byegone times, there have never been wanting the pessimists whose task it has been to depreciate these qualities and to moderate that vanity about mankind which his successes appear to foster. Some of these, Faustinus, Cornelius Agrippa, Thomas Baker, have been already quoted.

To what has been already said about the De Triumpho Stultitia of Perisaulus Faustinus, printed in 1524, it seems superfluous to add anything. volume, however, is so very rare, so little known, or rather so quite unknown and so confusedly described, that anything that would elucidate its history might be considered of value. In the hope of finding a variation from my previous description, I acquired the copy which occurred last year (1893) in the Manzoni sale (No. 4168). On examining it I was both satisfied and disappointed. Satisfied, because it agreed exactly with my other copy, and therefore confirmed all my arguments; disappointed, because in so agreeing it gave no help towards solving the difficulties in the book's history. The Manzoni copy, however, is an addition to the list of those already known, for, so far as one can judge, it cannot be identified with any of the others. This copy is entire, having the final blank leaf. The only difference between it and my other copy is in the relative position of the red and black lines of the title page. In the Manzoni copy the red lines are less accurately adjusted, and almost touch the black lines immediately above them. In every other respect

¹ The Library, February, 1890.

the two copies tally, and so once more we meet with Hieronymus Soncinus on the title page, but in the colophon "Jo. Franc. & Jo. Antonius de Rusconibus, Fratres." Notwithstanding the appearance of this probably unknown copy, the book remains as rare as ever. Doubtless copies of it exist in Italian libraries and collections, but meantime, if there be such copies, they are unknown, and we can enumerate only the half-dozen which I have described.

12. With the rarity of Faustinus' pean of folly, copies of which are to be counted by units, may be contrasted the abundance of Cornelius Agrippa's fantasia on the same motivo: "The Vanity of Sciences," editions of which are to be counted almost by the score. The great circulation which it had shows that it responded to some necessity of the time, but it is too much to suppose that its scepticism produced any effect on the progress of science and of the arts, or prevented men from pursuing any path—whether of labour, study, amusement, or dissipation—which allured them. The book itself, however, is particularly attractive to the bibliographer and chronicler. It presents many fine points of interest; the number of editions, the rarity of some of them, the excisions in the expurgated and licensed copies, the translations; these and others lend themselves agreeably to investigation. To treat these details in full would take too much space here; besides I considered some of them in a communication to the Society of Antiquaries in London. Since then, however, additional matter has come into my hands which requires new treatment. Here, however, I may briefly state certain points of importance. The book was printed in 1530, in 4to, of which rare edition I got a duplicate in 1888. There followed some seven or eight issues, all dated 1531, and all at different places. Edition after edition appeared, and then, about 1536, the book was expurgated, and thereafter the emasculated editions went widely into circulation. The excisions and variations were tabulated by Clément, and they are useful for comparison to ascertain whether an edition is complete or not. Only the earlier editions are The book was translated into complete, and on that account desirable. various languages-- French, English, Dutch, German. There are two English versions—the earlier, 1569, and 1575, both in 4to, and the later in 8vo, dated 1676, 1684, 1694. It is not probable that the book is ever looked at at the

present day—even the English version of it—but it repays examination, not merely by its style and vein of thought, but still more by its serving the purposes of a history. It is not a systematic work of that kind, but it shows such erudition and such a knowledge of the habits, customs and events of the time, that, in its unconscious simplicity and general accuracy, it is preferable to a set history in certain dramatic effects. It is rather a criticism with a historical basis than a mere narrative.

- 14. A small volume entitled *The Vanity of Human Inventions* was published at London in 1666, anonymously, though the author is said to have been a certain John Wilson. In case those who come across this little work should be led by the title into thinking that the author resembled Perisaulus Faustinus, Agrippa, or Baker, in his treatment of the subject, I may say that he does not do so, but deals only with religious rites and ceremonies. It is in fact merely a pamphlet in the anti-papal discussions of the time. I have included it here only to have the opportunity of saying that it does not properly belong to the series of books now considering, as its title might suggest.
- Learning as a piece of shrewd scolding, I could show only the third edition in English, printed for A. Bosvile, in 1700, and was unable to say anything about previous editions. I have since ascertained that in the same year there were other two editions, one without any number and therefore presumably the first, and one with identical title page, but having in addition the words: "The second edition corrected." These two exhibit variations in the text, but I do not know how far the third edition agrees with or differs from them. This would be conclusive as to the publication of the book, but in the Library of Emmanuel College, Cambridge, there is a copy dated 1699. Whether this points to a cancelling of this title page, and the substitution of one dated 1700, or to two distinct editions, is a point I have not yet settled. Obviously, however, the bibliography of Baker's book is worth looking into.

II.—BOOKS OF RECEIPTS AND SECRETS. (ITALIAN.)

16. Coming to this second division, the amount of material at my disposal is so great that for convenience it must be divided. As it happens that books of secrets in Italian and by Italian writers make up nearly one third of those which I have recently seen, I shall take them by themselves in this first division, leaving the remainder for subsequent consideration. This arrangement brings into prominence the number and the activity of the Italian writers down to the eighteenth century, the topics which were most in vogue, and the steady demand which must have existed for information, however defective or empirical, on practical matters. The first in the list is the following remarkable work on medical secrets.

Early in the fourteenth century Gulielmus Varignana, a native of Bologna so far as I have ascertained, wrote a remarkable treatise which he entitled. Secreta Medicina. In my account of Kiranus I shall have repeatedly to make reference to this collection, but it is of sufficient importance to warrant separate notice of it here. I have consulted and compared three editions of this work in the British Museum-Lyons, 1539; Basil, no date, printed by Henric-Petri; and one printed by Sebastian Henric-Petri at Basil, in 1597. Of these, by far the most attractive is that of 1539. It is a thin 8vo, printed in double columns in black letter, with numerous contractions. The next is a little square 8vo. It is in Roman character, and is rather pleasing to look at, but the text varies considerably from the previous edition, and is corrupt. The last, edited by Caspar Bauhinus, may have been the most useful but it is excessively plain and commonplace as a book. The editor, however, has restored the text in most places, so that it agrees very closely, if not entirely, with the edition of 1539. The plan on which the book is constructed is simple and convenient for rapid consultation. The author begins at the head, and goes through all the diseases in detail right down to the feet, describing their treatment and the remedies to be employed. His information, however, is taken from the old writers, and the result is but an "aggregation" like the more massive volume which was produced by his contemporary, Jacobus de Dondis, Aggregator, of Padua.

17. In the British Museum (1038.d.35) there is a volume containing over a dozen small receipt books to which reference will have to be repeatedly made. They are chiefly in Italian of the sixteenth and seventeenth centuries, and several are mere chap books. The earliest of them to be mentioned belongs to this category. It is No. 12 in the volume.

Recettario Nouo probatifiimo a molte infirmita, & etiādio di molte gentilezze vtile a chi levora prouare. Cofa noua non piu ftampata. M.D.XXXII.

Small Svo. Signature A in eight; or, pp. [16].

Colonbon:

¶ Stampato in Vinegia ad instantia di Zuan maria Lirico Venitiano. Nelli anni del Signore. M.D.XXXII.

This is a book of medical receipts of the usual kind. The title is enclosed in a border similar to that on the title-page of the Italian version of Michael Scotus' *Physionomia*, Venice, 1532, from which it may be inferred that the ornament was a common one with the Venice printers of the time.

18. The first treatise on any art can hardly fail to be an interesting one. Even if it be defective, it will still furnish a summary of the knowledge of the time, which is invaluable. Moreover, there will be a flavour of originality about it which subsequent books must necessarily lack, and it will be the work of an expert who has practised the art and knows the details. This is the interest, for instance, of Neri's work on glass-making, and it is equally so of the work on dyeing by Gioanventura Rosetti. So far as I know this is the first separate work on the subject, and it is of very great rarity. Receipts about dyeing are given in a good many of the secret books, more particularly in the Kunstbüchlein, Ettliche Künste, by Alexis, etc., etc. The present work, however, deals with the whole subject in a systematic way and not only so, but gives woodcuts of the plant required for the various operations.

The technical details are hardly suitable for exposition in this paper, and are besides so lengthy that they had better be dealt with separately, but as it is distinctly a book of technical receipts, and the only one of the kind which I have met with in the whole course of my researches, it may be described. Singularly enough, of this book there was only one edition, so far as I know.

Plictho De Larte
De Tentori Che Insegua
Tenger Pani Telle Banbasi
Et Sede Si Per Larthe Magiore
Come Per La Comvne.

4to, Signatures: A to L in fours. No pagination.

The title-page is decorated with an elaborate border and a curious coat of arms, if it can be called such, and it is entirely woodcut, even to the title itself.

At the end of the text, L2 verse:

Composto per Gioanuentura Rosetti prouisionato ne lo Arsena dallo Illustrissimo Senato Venetiano.

In Venetia per Francesco Rampasetto.
M. D. XL.

L3 and 4 contain the table of contents.

.. ...

There is a copy of this book in the British Museum, 1044.i.19 (1). It is mentioned by Brunet, *Manuel*, 1863, vol. iv., col. 1396; Graesse, *Trésor*, 1865, vi. i. 165; but what is of more importance as indicating its value, it is in the *Catalogue of the Choicer Portion* of the Libri Library, 1859, p. 315, No. 2362. It is there said to be extremely scarce. Brunet gives the prices which this volume has fetched: 55 fr., Libri in 1847; 25 fr., Libri in 1855; and 19 sh. in 1859, so that the Libri copy or copies seem the only ones which have been in the market for fifty years.

19. The *Pirotechnia* of Vanoccio Biringuccio, treating in ten books of metallurgy and related technical and chemical arts, differs from a large number of works enumerated in these lists in two respects:—1st, its bibliography is quite simple and the book presents no difficulties as to its own history and meaning; and 2nd, its contents are more interesting historically, than the bibliography. On this occasion, however, I must confine my remarks to the book and leave its contents to be reviewed hereafter.

The first edition, Venice, 1540, is an annoying book. When I became acquainted with it, which was long before 1882, it was considered very rare. Whether this was correct or not at that time, I do not know, but, as a matter of fact, it is no longer rare, but has become comparatively common; at all events I have repeatedly encountered copies in sale catalogues, and I should think there would be no difficulty in getting a copy of it at any time. Some of the later editions are rarer, and this is evidenced by the fact that after mention made (Part I., 1882), of the editions of 1540, 1550, 1559, and the

French translation, 1572, there has been no opportunity to refer to the book again in any of my subsequent papers.

Recently, however, some other copies have come into my hands. The rarest of them, probably, is the first edition of the French translation, Paris, 1556, in a handsome quarto, superior in its style to the edition of 1572. There is also another edition in Italian (Venice, 1558-59), in 4°, and an octavo edition published at Bologna, without a date, but about the middle of the sixteenth century. By far the most interesting and rarest item, however, is the sole fragment that remains of a proposed and partially executed translation into English. It consists of the introduction and the sections which deal with gold and silver, occurring in the signature *4 to 8 and ff. 1 to 10 verso of the 1540 edition. It was executed by Richard Eden, and is contained in his edition of Peter Martyr's Decades of the New World, printed at London in 1555, ff. 326 verso to 342 recto. There are few books rarer than this last. Besides the copy I now exhibit I know only of the copy in the British Museum, and another in the University Library, Cambridge. The section from Biringuccio would merit reprinting as an appendix to a separate dissertation on the knowledge of mines and metals, possessed by the author in the early part of the sixteenth century.

20. As the modern scientist deems his duty to long-suffering humanity but hardly discharged if he has not published a text book on what he designates "our science," the older representatives of the class acted as if an obligation were laid on them to discuss the whole system of the universe. They did not conceal their aim, and they certainly showed considerable power in either collecting and repeating, or in inventing explanations of the wonders and mysteries which the physical, spiritual and moral worlds contain.

Among these the work of Jerome Cardan, of Milan, De Subtilitate, is conspicuous. It was first published in 1550; it passed through many editions, and was translated into various languages.

There are three copies of this book to refer to.

Hieronymi Cardani Mediolanensis Medici, De Svbtilitate Libri xxi. Nvnc Demvm ab ipso autore recogniti atque perfecti.

Lvgdvni, Apud Guliel. Rouillium. 1554.

8vo, signatures: α , β , γ , δ , in eights; ϵ in four; a to z, A to Z, Aa to Ee, all in eights, of which Ee 8 is blank; or pp. [72] 813 [3 blank].

The present copy is a fine example of what could be done in the middle of the sixteenth century to produce a book for ordinary circulation. The paper is good and the printing clear and well arranged; the title page is curiously illustrated, other ornaments are tasteful, and the woodcuts, which are numerous, excellent. It is strongly bound in wooden boards covered with white pigskin, nicely stamped, and dated 1557, so that the binding is of the same time as the book. One clasp is wanting, but that is the only imperfection. Nothing better could be desired as an example of a book of three hundred and fifty years ago. It contains, besides p. 428, the passage which caused its author some trouble. Clément (Bibliotheque Curieuse, 1756, T. vi., p. 273) speaks of the rarity of this edition, which apparently he had not seen, and says: "Elle est presque inconnue."

The next copy is a French translation.

Les Livres De Hierome Cardanvs Medecia Milannois, intitules de la Sebtilité, & fubtiles innentions, enfemble les causes occultes, & raisons d'icelles. Traduits de Latin en Françoys, par Richard le Blanc. Mousellement reneuz, corriges, & augmentes fur le dernier exemplaire Latin de l'Auteur, & enrichy de plusieurs figures necessaires. [Device].

A Paris. Cher Pierre Cauellat, ruë S. Inques, à l'enfeigne de la Fleur de Lys. 1578. 8vo. *, ā in fours, ē, I, ō in eights, ū in four; a to s, A to Z, Aa to Oo, in eights, Oo 8 wanting; or ff. [36] 478 [1 with scroll] and 1 blank (7) wanting.

This also is in excellent state, though the binding is at least a century and a half later than the book. It is more closely printed than the Latin, but it is nevertheless nicely executed. Cavellat was the publisher also of Levinus Lemnius' Secrets, translated by Gohory, and of some of the editions of Alexis.

The third copy is that contained in Cardan's works, which were collected in ten volumes folio, and printed at Lyons in 1663. The present treatise is in the third volume.

The treatise, "De Subtilitate," is a summary of philosophy, science, and the arts, and it is only as such that it is entitled to be embraced in this list. Yet, as it does contain a description of secrets both of nature and art, it cannot reasonably be excluded, even though its name does not specify the secrets which it aims at elucidating. The French title, however, shows its claim more clearly than the original Latin, since it says that it treats of "subtile inventions."

This book was long a standard one, it passed through many editions, and

its bibliography was studied by Clément, Bibliotheque Curieuse, 1756, T. vi., p. 268, sqq.

The following editions are enumerated:

1. Norimbergae, apud J. Petreium,	1550, fol.
2. Lagduni, apud Rouillium,	1551, 8°.
3. Paris, ap. Mich. Ferandat et Rob. Granjon,	
4. Basilese, ap. Lod. Lucium,	1554, fol.
5. Legduni, ap. Rouillium,	1554, 8°.
6. Lugduni, ap. Guil. Rouillium,	1559, 8°.
7. Basilese.	s.a. fol.
8. Basilese, ap. Henric Petri,	1560, fol.
9. " "	1560, 8°.
10. Lugduni, ap. Bart. Honoratum,	1580, 8°.
11. Basilese, ap. H. Petri,	1581, 8°.
12. Basileze, ap. Seb. Henricpetri,	1582, 8°.
13. ,,	1611, 8°.
14. " ap. Emanuel König,	1664, 4°.
In French, by Richard le Blanc:	
15. Paris, ches Charles l'Angelier,	1556, 4°.
16. ,, ,,	1578, 8°.
17. ,, ,,	1584, 8°.
18. a Rouen,	1642, 8°.

An abstract in German was appended to the translation of Cardan's de rerum varietate by Hulderich Fröhlich von Plawen under the title, Offenbarung der Natur und natürlicher Dinge, Basel, 1559, 1591, fol.

Of these various editions I have managed to see only No. 2, 1551, which in good condition would be a fine book; No. 4, 1554, which is printed in large type, and is almost too big; No. 5, 1554, described above; No. 12, 1582, printed in small italics, yet containing pp. [80] 1148 [4], and got up in the ugliest possible way; No. 14, 1664, printed at Basel, "Impensis Henric-Petrinorum," who, not to be false to the firm's traditions, have printed it on soft paper that has foxed, and have made it as repellant as a working quarto of the date could be; and No. 16, 1578, described above.

21. Another of the Italian receipt books mentioned above [B.M. 1038.d.35 (2)] has the following title:

Notandissimi Secreti De L'Arte Profvmatoria: A Fare Ogli, seque, paste, balle, moscardini, necelletti, paternostri, e tutta l'arte intiera, come si ricerca cosi ne la citta di Napoli del Reame, come in Roma, e quiui in la citta di Vinegia nuoua

mente impressi. [Device: Fortune (?) with a sail, standing on a ball, which is floating on the sea, than which there could hardly be a better symbolizing of instability and uncertainty.]

In Vinegia.

Small 8vo. Signatures: A to K in 8; or ff. 74, and table [6].

After the table, the colophon:

In Vinegia per Francesco Rampazetto. Ad instantia di Marchio Sessa. Ne l'anno del Signore. M. D. LV.

Printed in italics.

At the foot of f. 73 verso is the note: E tutte queste cose son composte per Giovanni Ventura Roseto Veneto. Was he also the author of Plictho, § 18, above?

From its contents this is to be compared with Le Fournier's tract, and with he corresponding sections in the Secrets of Alexis which followed close upon it.

22. Among the books which first drew my attention to the early literature of technology, the foremost place is due to the Secrets of Alexis. It was mentioned by me in 1882, and it has recurred again and again in subsequent communications. It is undoubtedly one of the most interesting books of its class as regards both its own history and its contents. The historical detail, however, from its extent, must be considered separately, and the contents must be similarly dealt with, but the editions which I have recently acquired may be mentioned. From the book having been published in four parts, and the translations also in parts, it is hardly possible to arrange them in strictly chronological order, for the reissues overlap, and a tabular arrangement is almost a necessity. This method I have preferred for the separate paper on the subject for which my material has been collected.

The so-called first edition of 1555-6 still remains a desideratum, but I have an unknown and undescribed edition of the first part, printed in 1557 at Pesaro. It is entitled, Secreti del Reverendo Donno Alessio Pienontese, Nuouamente posti in luce. It contains Alexis' preface to the reader narrating the origin of the book, the contents, and the text of the six books, and it forms a small octavo volume, printed in italics, and containing 12 unnumbered and 143 numbered leaves. The colophon is on the recto of f. 143, and the verso is blank, so that the last leaf of the signature, which is wanting, is probably blank also. This edition is entirely new.

The Lyons reprint, 1558, in 16°, of the second edition was noticed in Part II. of the "Notes." I have now got another copy which is identical with it

in all respects. It is uniform also with several other books of secrets printed at Lyons about the same time, such as the *Treasure* of Evonymus, the *Prodigies* of Obsequens, and the *Natural Magic* of Baptista Porta. These books have an unmistakable character, and the Lyons press of the sixteenth century was a vigorous and active, if not always a scrupulous one.

The next copy I have bears date Antwerp, 1560, and it forms a small narrow 24°. It is a reprint of Wecker's translation into Latin of the six books of Part I, which was printed at Basel in 1559, and a copy of which I exhibited to the society in 1888. The Antwerp reprint contains Wecker's dedication to Abbot Caspar Muller, as well as Alexis' usual preface to the reader. This reprint is equally rare with the Pesaro edition, for, so far as I have observed, it is not mentioned by anyone in connection either with Alexis or with Wecker.

In 1561 a French translation was published also at Antwerp, by Christopher Plantin, of which I have a copy. This is an enlarged edition, consisting of three parts. The first contains the first part of Alexis' secrets in six books. The second part, also in six books, translated from the Italian, is ascribed to Alexis, but it differs entirely from the second part which is found in the English translation. At the moment I am unable to compare it with any other version. The third part consists of secrets from other authors, and it agrees on the whole with the third part as translated into English. Portions of this third part belong to the Kunstbüchlein series which I have described elsewhere. At Lyons, in 1564-65, Rouille printed a French translation, in thick 12mo. It does not coincide exactly with Plantin's.

The English translation from the way it appeared is somewhat difficult to manage, and each part has to be dealt with individually. Two copies which I have acquired are collected in the following way:—

London, John Wight: Part I. 1568; Part II. not dated, but 1568, both printed by Bynneman; Part III. 1566; Part IV. 1569; both printed by Denham.

London, Nycolas England: Part I. 1562; Part II. 1563; Part III. 1562; all printed by Roulande Hall.

Another volume contains Part I. 1562; Part II. 1563; and Part III. 1566. A fourth, but very imperfect copy, is composed of Part I. 1559; Part II. 1563; and Part III. 1562. It is quite obvious, therefore, from these as well

¹ Proceedings of the Philosophical Society of Glasgow, for session 1893-94.

as from the copies in the British Museum, that sets were made up as wanted from different editions of the various parts. These sets were made up prior to 1569 so that the fourth part does not appear in them. All these editions are well known. Apparently the least common of all is the 1560 edition of Part II. The latest edition in English with which I am acquainted was printed in London in 1615. It is in black letter and forms a substantial volume in small quarto. It contains the whole four parts, the last three of which are provided each with a separate title page, though the folio numbers and signatures are continuous. This is a convenient edition, but it labours under the disadvantage of being rather rare.

Amongst the absolute novelties must be placed two editions of a translation into Dutch. The translator's name is not given. One appeared at Amsterdam in 1658, in small 12°, printed in black letter, as seems to have been the fashion at that time in Holland as well as at home. It contains the first part in six books with Alexis' preface, and also a second part. This, though stated to be translated from the French, does not agree with the second part in Plantin's edition or any other French reprint I have seen, but tallies with the second part as contained in the English. This would indicate apparently two distinct French versions, but I am not aware that there are such. The other edition, which is of the same size and in the same style, bears the imprint: Amsterdam, 1670.

23. When referring formerly to the Magia Naturalis of Baptista Porta, I described copies of the second and enlarged form of the work in twenty books, as published in the Elzevir editions of 1664 and the English translations of 1658. There was, however, an earlier edition in four books, of which I have two different copies to show. One is the earliest which came from Plantin's press, Antwerp, 1560, and is a thin small octavo. The other is a stout little 16mo, printed at Lyons by Rouillius in 1561. The Plantin edition is in italics, with an ornamental title-page, and is rather pretty. The other has been, and is still, a nice copy in the original boards and white stamped hog-skin binding. Of the later editions also, I have one printed at Rouen, 1650, which, like many other contemporary works which issued from the same

² Plantin printed Alexis in Dutch in 1558, 1561, 1564, 1571. I have not seen these editions, and cannot say if the 1658 book be a reprint or not.

centre, is as ugly and unattractive as there was any need for making it. This edition contains the twenty books.

There was a large number of editions of this famous collection, both in four books and in twenty. In the former, besides those of 1560 and 1561 just mentioned, there are Naples, 1558, folio, which is the first edition; Antwerp, 1561, 8°, the second Plantin issue; and again, 1564 in 18°; and in Italian: Venice, 1560, 8°; and 1665, 12°. Of the enlarged form: Naples, 1589, folio; Frankfurt, 1607, 8°; Hanau, 1619, 8°; Leyden, 1651, 12°; Amsterdam, 1664, 12°; London, 1658, 4°; and in Italian, Naples, 1611, 4°. These are in the British Museum, but Plantin besides printed a Latin edition of the four books in 1566, 1 and a Dutch version of the same in 1566.

24. In the case of books printed as late even as the seventeenth century, one can never be certain that copies having the same date, and even place of publication, are necessarily of the same issue or edition; they may or may not be so, but anyhow, I have found a sufficient number of instances of their not being duplicates, to make me invariably investigate any instance of identity of date, so as to settle whether or not the books are identical altogether. In a subsequent supplement I shall give one instance at least of apparent duplicates proving to be entirely different, and, with that in my mind, I was not disposed to take the following on trust, though as it happens the present examples are really duplicates. Isabella Cortese wrote a book, I Secreti, printed at Venice in 1565, in small 8vo. Later editions, 1625 and 1677, appeared at the same place, and have been mentioned already (Part II. 258; III. 225).

In the Museum volume of pamphlets [1038.c.4 (2)] I found what proves to be the first edition. The account is as follows:

I Secreti De La Signora Isabella Cortese. Ne' Qvali Si Contengono cose minerali, medicinali, arteficiose, & Alchimiche, & molte de l'arte profumatoria, appartenenti a ogni gran Signora. Con Privilegio. [Large Device: Female figure, standing, with a mirror.]

In Venetia, apprefio Giouanni Bariletto. MDLXI.

Small Svo. Signatures: *, A-L in eights, or, ff. [8], containing title, Isabella's dedication, and contents. Text, ff. 88.

Printed in italics. It contains three books.

The copy of this book which I have recently acquired corresponds with

¹ Léon Degeorge, La Maison Plantin A Anvers, Paris, 1886, p. 150. 2 Ib. p. 148.

this throughout, so that it is another copy of the same edition. As the contents in no wise differ from the later editions, it is not necessary to say more about it at present, but, as may be seen from the contents in the title, it must be classed along with other collections of cosmetic secrets which have been referred to.

25. Pietro Bairo¹ was born at Turin in 1468, studied medicine there and became so distinguished as a physician, that he was consulted by persons of the highest rank. He ultimately obtained the title of physician to Charles II. duke of Savoy. He died on the 1st of April, 1558, at the advanced age of ninety. He wrote a treatise on the plague, which went through a number of editions, a treatise on medicine, and some minor disquisitions on medical topics. There was also a work on medical secrets, the first edition of which, as I think, is in the British Museum (1038. c. 4 (1).). The title is as follows:

Secreti Medicinali Di M. Pietro Bairo Da Tvrino, Gia Medico Di Carlo Secondo Dvca Di Savoia. Ne Qvali Si Contengono i rimedi che si possono usar in tutte l'infermità che uengono all' huomo, cominciando da capelli sino alle piante de piedi. Et questo libro per l'utilità sua si chiama Vieni Meco. Con priuilegio per anni xv. [Device]. In Venetia.

Small 8vo. Signatures: *, A-Z, AA-KK in eights. Text ends on KK 6. Register on KK 7. KK 8 blank; or ff. [8] containing title, address to the reader and contents. Text ff. 262 [but ff. 119-120 bis and 167-168 dropped], f. 263, the register; 264 blank. After the register comes this colophon: In Venetia, Appresso F. Sansovino. M.D.LXI. Printed in Italics.

According to Panckoucke's notice, there was an edition dated Venice, 1585, 8vo. This I have not seen, but I have a third dated 1602.

Secreti | Medicinali | Di M. Pietro Bairo | Da Tvrino, | Già Medico di Carlo II. Duca di Sauoia. | Nei Qvali Si Contengono | i rimedij, che si possono vsar in tutte l'infermità, | che vengono all' huomo, cominciando da capelli | fino alla pianta de piedi. | Con nuova giunta posta nel fine: | Et questo Libro per l'utilità sua si chiama, | Vieni Meco. | [Vignette, St. George and the Dragon.]

In Venetia, MDCII. | Appresso Nicolò Tebaldini. |

Small 8vo. +, A to Z, Aa to Kk in eights, but Kk 7 and 8 possibly blank, or containing the device or colophon, wanting; or ff. [8] 262. Printed in italics.

This is a general treatise on the art of healing, and is topographically arranged like the works of Jacobus Paduanus and Varignana. Impressed by the vastness of the subject, he endeavoured to bring it into reasonable compass,

¹ Panckoucke, Biographie Médicale, I. p. 509. He is responsible for the dates.

and as it saved the practitioner the trouble of constantly referring to the great authorities, he, like Valescus de Taranta, called his book *Vieni Meco*, Vade Mecum. He cannot therefore claim that title as original.

The medicines employed are sometimes of a startling character—such as suffumigation by a dead man's tooth, which must have been used for the occult virtues of the tooth or of its owner, rather than for any other reason. Extraordinary remedies, however, formed the rule, so long as physicians knew neither the physiology nor the pathology of the human economy.

26. Notwithstanding the way in which Fioravanti was denounced as a quack, his books maintained their circulation. In addition to those already shown and described, I have here some fresh copies to exhibit. One is a copy in Italian of his Secreti Rationali in five parts, printed at Venice in 1630. There is nothing noteworthy about the volume, except that it is in the chap-book style of the period.

The other is the first edition of the French translation of the Miroir Vniversel des Arts et Sciences en General, . . . divisé en trois livres, by Gabriel Chappuys. It was printed in 1584 at Paris by Cavellat, who was also the printer of Cardan's Livres de la Subtilité, mentioned above. It is an 8vo, and this copy has been much read and thumbed. Chappuys' editions must have been popular, for I have never succeeded in meeting with any of them in good condition. The second edition, 1586, was mentioned in Part II., p. 251.

Fioravanti's Discourse upon Chirurgery went through several editions. The first edition of the English translation was printed at London by Thomas East in 1580, in small 4to, and in black letter (Part V., p. 452). In addition to a copy of this first edition, I have got also a later one, edited by Richard Booth, Gent., and printed at London by Edward Allde in 1626. This is also a small 4to, 2 leaves, sigs. B to Q in fours, R in two, or pp. [4] 117 (misprint for 118) [6], and to this, as in the other, are added "most notable "secrets found out by the said Authour."

The later edition differs from the earlier one by omitting Hester's dedication to the Earl of Oxford and the coat of arms, Hester's address to the reader, and Fioravanti's address to the reader, and by inserting an address to the reader by Richard Booth. At the end is also added, in the second edition, "the making of certaine precious waters taken out of John Vigo, Chirurgion."

27. A book devoted entirely to medical secrets, without the admixture of anything artistic or technical, was composed by another Italian:

Maravigliosi Secreti Di Medicina E Chirvrgia, Dell' Eccellente Medico II S. Gio. Battista Zapata Nvovamente Ritrovati. Con l'aggiunta d'altri secreti, mecolti dalli suoi Discepoli. Con Licenza De' Svperiori, & Priuslegio per anni XX. In Roma, Per Tito, E Paolo Diani. M. D. LXXXVI. Svo. Signatures: a, b in eighta, e in four, A to R in eighta, or pp. [40] 272.

This volume presents a rather peculiar appearance by the pages being surrounded by lines, by the catchwords, the marginal rubrics, and the running title being divided off by lines, and by the chapters and their titles being separated by three lines. Though this book deals professedly with the treatment of a great number of ailments, and explains the preparation of the necessary remedies, it contains incidentally a good deal of chemistry as applied to pharmacy. This makes it valuable for the history of the science, for here we get the processes employed three hundred years ago for preparing certain well-known compounds, uncomplicated by any theoretical views about elements or transmutation. Amongst these, Chapter XV. is of special importance, for, according to it, Zapata had invented a method of making oil of vitriol: Oglio di vetriolo, secondo la nostra inuctione, p. 127. He had also various compounds of antimony, a "litharge water" or solution of litharge in acetic acid, and other preparations, which may be omitted at present.

There are other editions: Venice, 1641, 1677; in Latin, Ulm, 1696; in German, Franckfurt-a-M., 1605; all of which are in the British Museum.

Zapata seem to be very little, if at all, known, as his name does not occur in the biographical dictionaries.

In the Bodleian Catalogue (Oxon. 1843, III., p. 411) there is this entry:

Scientia (Gioseppe)

Li maravigliosi secreti di medicina e chirurgia, raccolti dalla prattica di Gio. Battista Zapata.

8°. Venet. 1595.

I have not seen this copy.

z This process is quoted by Caneparius under the title, "Oleum Vitrioli potabile ex Zapata," in his book *De Atramentis*, Roterodami, 1718, Lib. VI., cap. xl., p 479 for which see § 36 below.

28. It so happens, by the accident of date, that most of the items contained in the volume of pamphlets already quoted (B.M. 1038. d. 35), have come all together. They are small, require no comment, are mostly anonymous, and several have no dates. In their case I have risked 1620 as about the probable time of their publication. Those which have dates present, of course, no difficulty. They begin with 1600, 1604, 1606, then five belong to about 1620? and one is dated 1626. They are as follows:—

Tesoro Di Varii Secreti Natvrali. Tratta da diuersi Auttori famosissimi, & più volte sprementati in molte persone, Opera molto gioueuole alla sanità de' corpi humani, Con la dichiaratione di molti dubij. Et il modo di sar & conseruar il Vino. Con Licuma de i Superiori.

In Venetia, MDC. Apprefio Gio. Battifta Bonfadino. Small 13mo. Sig. A in 12.

There is nothing special about this except the preparation of wine. The first part contains some remedies for common disorders. (1038. d. 35 (4)).

This was followed by a book with a similar title. (1038. d. 35 (11)). It is, in fact, a reprint of a portion of the above, in chap book form.

Tesori Di Varii Secreti Natvrali. Raccolti da diuersi Eccellentis. Auttori. [Device.]
Stampata in Venetia, e ristampata in Verona, Per Francesco dalle Donne. 1604.
Small 8vo. Thie within a narrow border. Sig. A 4.

29. In the same volume [1038.d.35 (8)], under Antonio Venetiano, there is the following:

Opera Nella qualie trouerai molti bellissimi Secreti. Vtili, Et Necessarii li quali sono stati esperimentati. Nouamente dati in luce, per beneficio d'ogni corpo humano. Ad' instantia d'Antonio Viniciano. [Vignette.]

Stăpata in Papoa con licentia fuperiori.

Small 8vo. A in 4. Chap-book, no date, but about 1620.

The vignette is a man with a bagpipe sitting, one with a staff standing, a dog, and some sheep, two trees, and a house or two in the background. It is a very large display for such meagre results, for there are only a few medical receipts for burns, worms, deafness, white hands, and for sleep.

30.

B.M., 1038 . d . 35 (9):

Secreti Mirabili Per diuerse infirmità sperimentati Da molti Recellentissimi Medici, cauati da diuersi Authori. Et io Oratio di Gouerri hauendone fatto

l'esperienza, mi è parso di metterii in luce, a benesicio, & sanità de gii corpi

Small Svo. Title enclosed in a broad border. No data, place, or printer, but about 1620.

Sig. A in 8. Printed in italics. Last leaf contains the table.

These secrets are entirely medical, and, though similar to the other collections, are different from them.

31.

B.M., 1038.d.35 (10):

Secreti Vtilissimi e nuosi. Doue s'intendono molti particolari vtili per falute delli corpi humani. Nuosamente pofti in isse, ad inftanza del Pefarino gran Giocator di mano. [Device, the full sun.]

Stampati in Brefcia, con licenza de' Superiori. E riftampato in Verona. Small 8vo. A in 4. Italica. No date [1620].

Miscellaneous receipts—to make hair grow, to remove hair, to make strong vinegar, against intestinal worms, to send a secret letter (by a carrier pigeon), etc., etc.

One cannot expect very much of a chap-book of four small leaves.

32.

B.M., 1038.d.35 (13):

Giardino Et Fioretto De Secretti. Tradotto da molti Autori, si antichi, come Moderni, à beneficio di ogni perfona. Con Gratie, & Prinilegij. [Device.]

Stampato in Venetia, ad instantia di Fiorauanti Cortese.

Small 8vo. Sig. A in 4. The title is within a narrow border. The device is a winged lion holding a book, with a tower in the background.

This is a collection of receipts like the others. It is a chap-book about 1620. The author, or printer, or publisher seemed to know what he was about when, with a touch of humour, he put the names of Fioravanti and Cortese together as concerned in its publication.

33

B.M., 1038, d. 35 (14):

Il Medicinal Tesoro. Di Vespasiano Angelico Cittadino Veronese. Opera a chi brama la Sanità vtilissima, Con alcuni secreti Filosofici. Novamente stampato, con licenza del collegio di Medici di Padoa, Et di Signori Superiori.

Small 8vo. Ornamental border round the title. ff 4. No signature, no date. An early 17th century chap book. Same kind of collection as the others.

Vespasiano Angelico seems to be a pseudonym, but I have not found the name noted as such by Placcius or by Melzi.

34.

B.M., 1038. d. 35 (7):

Centvria Di Secreti Politici, Cimichi, e Naturali; Dispensati da mè Francesco Scarioni da Parma. A' requisitione de' Spiriti curiosi, & amatori di virtà.

In Venetia, Verona, Parma, Lodi, Milano, Bologna, & in Padoua per Pietro Paolo Touzi. M.DC.XXVI. Con Licentia de' Superiori. Small 8vo. Sig. A in 8.

Contains 100 brief receipts, and an index of them. Scarioni may be the author. I have not been able to check him, but there is just a suspicion of quackery in putting half-a dozen places on the title-page of a pamphlet of eight leaves.

35. Glassmaking, of all the arts, is one of the oldest and most interesting, and the literature relating to it, though quite modern, is also interesting. The oldest work on the subject, that of Neri, is a rather fascinating production. The interest of it lies in the light it throws on this branch of technical chemistry, for the chronology of the book is quite simple. A discussion, however, of the contents must be undertaken elsewhere. Besides another copy of the rare first edition of 1612, and of the English translation of 1662, I can show a copy of a reprint, in cheap form, Firenze, 1661. The book is apparently hardly out of date even yet in Italy, for I have also a copy dated Milan, 1817, which would indicate that the demand for it continued two hundred years. There is also here the reprint of the English translation, which appeared in a preposterous folio at Middlehill, in 1826. There are other editions in the British Museum, but the account of them must be reserved in the meantime. Immediately connected with Neri's art of glass is the German translation of it amplified with annotations by Johann Kunkel. The edition of this work of 1679 has been already mentioned by me. I have now got a reprint of it dated 1689. There is no essential difference between these issues. Geissler's German translation I formerly said (Part II., p. 268) contained nine plates, but in a copy which I have since acquired there are ten plates. The French work on glass by Blancourt was previously noticed. time I had the English translation in one volume, dated 1600—indicative of an earlier French version. Such I have not seen, but I have one in two volumes, 12°, printed at Paris in 1718. No allusion is made to Neri, but it is essentially based on Neri's book, and the illustrations are practically the

same as his. At all events in any review of Neri's book and art, it would be necessary to take into account both these translations as illustrating the original work.

36. In a handsome quarto volume the monograph of Caneparius De Atramentis was reprinted at Rotterdam in 1718. The earliest edition I know of and have already mentioned was printed at Venice in 1619, and an edition appeared at London in 1660. Both of these are inferior in style to the edition of 1718. The London edition differs from that of Venice by the omission of the long table of contents of the six sections into which the book is divided. The Rotterdam edition also omits this important table, but in it the table of authorities is re-arranged in a more strictly alphabetical order. The text, so far as I have compared the present with the earliest edition, is a literal reprint without modification or addition. It is well worth observing that a treatise on such a practical subject as is discussed in this volume could literally stand still for a whole century, and be then reprinted without change, presumably for the use of those interested in it. One can only suppose that the subject itself stood still for a hundred years. This, however, would not be correct, for in the interval a very great deal had been done to elucidate the nature of salts and their reactions, the making of sulphuric acid by the bell had been introduced, and there had been a great deal of discussion about the nature of the chemical elements or principles, and on the cause of combustion. The author, of course, was not alive to take cognisance of these changes, but it is instructive to consider that nothwithstanding its being behind all these advances, it was still thought worth reprinting for practical purposes. It would hardly be possible to reprint a book on a practical technical art published at the end of last century for use at the present moment.

At the present time, however, Caneparius's book is full of interest to the student of the history of chemistry. The first part treats of pyrites and analogous minerals, and of various theoretical questions which arise out of it as to the generation of metals, the nature of fire, etc.; the second part of metallic atraments; part three is devoted specially to green vitriol; part four to different kinds of writing and printing inks; part five to inks of different

I There is said to be an edition of Venice, 1618; Clément, Bibliothèque Curieuse, 1756, T. vi., p. 195.

colours, and incidentally to pigments, including cinnabar, red lead, lapis lazuli, etc., etc. The last book is taken up entirely with oil of vitriol.

37. The fertility of Italian writers in producing these books of secrets is evinced by another, which is quite new to me. It is entitled:

De' Secreti Vaivernali Di D. Timoteo Rosselli. Parte Prima, Si per huomini, & donne di alto ingegno, come ancora per Medici, & ogni forte di Artefici industriosi, & ad ogni persona virtuosa accomodati. Con Privilegio.

In Venetia MDCXXXXIV. Appreffo il Barezzi.

Svo. Signatures: a, A to R, in eights, or ff. [8] 136.

Parte Secondo; Nella quale si contengono innumerabili rimedi vtili a diuerse informità, & altre cose bellissime, ingugnose & artisciose. a, A to Q in eights, R 4; or ff. [8] 132. The second part has a distinct title.

It is in two parts, and the contents fully confirm its title, for it gives receipts for every conceivable contingency in medicine and practical arts. How far the author is a compiler it is not easy to determine, but I should suppose that he has not been loth to avail himself of the collections of the pioneers along the same path, such as Alexis and the author of the Kunstbücklein. The determination, however, of that point would lead me into a discussion of the contents, for which this is hardly a fitting time and place.

38. Auda's Breve Compendio di Maravigliosi Secreti, in four divisions, dedicated to Francesco Maria Febei, was printed at Rome in 1663. It was already in its fifth edition, to which were added other "bellissimi Secreti" by the author. It is an 8vo volume, printed roomily with nice legible type, and it contains †, ††, A to V, all in eights; X in three, or pp. [32] 326. X 4, probably blank, is wanting. There is a copy in the British Museum, 1038. d. 17.

An edition of later date purports to be the same. The title is as usual, the most important part being this addition:

In questa quinta impressione ricorretto, & ampliato di bellissimi Secreti dall' istess'
Autore.

It was printed: In Torino, Per Gio. Sinibaldo. M.DC.LXV, and forms a small square 8vo, sigs. +, A to Y in eights, or pp. [16] 352.

The additional secrets, if we may trust the bastard title which ushers them in, appeared for the first time "in questa vitima impressione di Torino," enlarged by the author to more than double, "with most beautiful and useful

secrets." To check this statement it would be necessary to compare this fifth edition with the fifth edition of Rome, which I have not been able to do.

Then there appeared in 1673, both at Venice (B.M. 1038. a. 16), and at Bologna (B.M. 1038. c. 23), an edition in 12mo. These books are much less pleasant to deal with than that of Rome, 1663. They are larger, however, containing a few extra receipts at the end. Otherwise the three copies are identical. There came another dated "Venetia, 1676. A San Giuliano. Appresso Giacomo Zini." It is a mere reprint, and the added secrets are put in without any reference to their source. It agrees with the Venice edition of 1692, formerly described, being in 12mo, and containing: The intental in

Whether any editions appeared under Auda's name subsequent to 1692, I do not know. If there were, the success of the book, which in various editions carried it through an interval of not less than fifty years, was sufficiently assured to make Auda indisposed to withdraw his name from it. It forms, therefore, a bit of a bibliographical puzzle to know why, in 1711, the book appeared not only without Auda's name, but with the entirely new name of Ouinti.

39. Allusion has already been made (Part IV., p. 322) to a small volume by a Dr. Quinti in French, which purports to be a translation from the Italian, but which is neither more nor less than a version of Auda's Secrets. My notion then was that Quinti had translated the book, and had claimed the authorship, for he speaks of the original Italian having been often printed; or else that Quinti was merely a fictitious name for Auda. Auda's book goes back to 1663 at least; Quinti's translation "printed at Venice and sold at Liege"—a rather queer sort of mixture—is dated 1711, so that the two names may have been used by one person.

The following, however, which I found in the British Museum (1035.a.35) seems to have been the original of the French translation:

Maravigliosi | Secreti | Medicinali | Chimici | Sre. Giuseppe Quinti, | Doctore di Venetia. | Ricolte per molti cure & lavori, che | fono stati da egli stesso siperimenta-| ti, & provati più volte in parecchie | infermite. |

Venetia, | Et fi vendono | Leodii, Dal J. F. Broncart, | in Supremo-Ponte | M.DCCXI. Small 12mo, *, A to O in twelves, pp. [24] 336. *I is an engraved frontispiece. The rest of the signature is occupied by the title, dedication to "Molt Illustre Sign," by Quinti, and is dated: Milano li 23 Decembre, 1702 (not dated in the French version), followed by the preface, Sonnets and Tavola as in Auda's edition. Then follows the text. Some of the receipts are differently arranged in Auda's and Quinti's editions, but practically the two books are identical. The French version runs parallel with this even to the place and date, but the two differ in the last book. The variation, however, does not affect the fact of their simultaneous—or seeming simultaneous—publication, and it makes it still more difficult to understand how Quinti, if different from Auda, could reprint the book of the latter with his own name, and then in a French version refer to the Italian original which, he says, had gone through several editions. And if Quinti was a name assumed by Auda late in life, what did he mean or gain by it?

In his dedication to some illustrious person, not named, Quinti says:

Ces Secrets de Medecine que je fais paroître au jour, ont été si bien reçûs du Public, qu'encore qu'ils ayent été imprimez plusieurs fois à Venise; on n'a pas laissé de les redemander avec empressement aussi-tôt que les Exemplaires en ont été distribues: C'est pourquoi afin d'obliger tout le monde & principalement ceux de ma profession, & leur donner une plus grande intelligence & plus de facilité en cet Art, je fais imprimer de nouveau ces Secrets, avec l'augmentation d'un quatriéme Livre. J'espere qu'il sera aussi bien reçû que les trois autres qui avoient paru ci-devant:

and then adds the usual flourish about the protection of the Tres-Illustre Seigneur, which it is unnecessary to quote.

This is ingeniously put, for while it might and does leave the impression that Quinti is speaking of a book of his own, he does not say it in so many words, although on the title-page, both of the Italian and French, the book is ascribed to him. At the moment I have no explanation to suggest as to this republication of Auda's collection under another author's name.

40. Auda was the author of a treatise on the theory and practice of pharmacy. It is entitled:

Practica | De' | Spetiali | Che per modo di Dialogo con- | tiene gran parte anco di |
Theorica. | Opera | Vtile, e necefiaria per questi, che desiderano | ben comporre li
Medicamenti. | . . . | Con vn Trattato delle Confettioni nostrane | per vso di
Casa. | Et vna nuoua aggiunta de' Segreti vtilissimi. | . . . | In Venetia, M.DC.

LXXIV. | Presso gli HH: di Gio: Battista Cestari | A spese di Zaccaria Consatti. | . . .

Small 12mo. Sigs. A to O in twelves; or pp. [1-12] 13—329 [5]. O12, probably blank, is wanting.

The Trattato delle Confettioni and the Nvova Aggivnta Di Secreti have title-pages both dated M.DC. LXXIII., both included in the signatures and pagination.

The first or theoretical part gives explanation about operations and general descriptions of certain drugs. Then follow electuaries, pills, syrups, lozenges, plasters, oils, waters, etc., etc. The second tract deals with a few preserves, olives, citron peel, etc. The additional admirable and useful secrets are receipts for alleviating certain troubles and maladies, both external and internal.

From the fact that these are said to be added, I presume this is not the first edition of the book, but I have no means of ascertaining, as it is not mentioned by any of the authorities I have consulted, and there is no copy of the book in the British Museum.

41. Among the little medical secret books which swarmed in Italy in the seventeenth century, was this:

Secreti Medicinali Del Sig: Alessandro Ventvrini Ne' quali fi contengono i più feelti rimedi, che fi causno da gli Animali per falute dell' Huomo. Nuouamente accrefciuti d'importanti Secreti dal Sig. Francesco Pignocatti Al Molt' Illuftre Sig Il Sig Gasparo Bassi.

In Bologna, M.DC.LXXII. Per Gio: Recaldini. Con licensa de' Super.
Small 12mo. Signatures: 4 leaves, A to E in twelves, F in eight. Pagination: [8] 126.

This is apparently an Italian chap book; anyhow it is shabby enough to have been an English one. It has, however, the merit not merely of being an entirely new book to me, but of dealing with a new subject in a way to which I remember no strict parallel, and only a partial resemblance in the works of Lovell and of Schröder. It gives a very brief summary of all the drugs obtainable from man and other animals. It is, therefore, strictly a book of medicines, rather than a book of medical secrets, for it would require a counterpart, or at least an index of diseases, with reference to all the drugs useful for these.

These are the various Italian collections which I have either acquired or examined during the last few years. Considering their number, and that a

proportion of them are quite new, I should infer not that this is an end of them, but that there must be a considerable number still, especially of chap-books. Accident may bring some more of these into daylight, as it has already done with those described.

In the next part of this supplement, I shall consider another portion of the books which I have collected.

Note to § 8. October 10th, 1894.

In the Bibliothèque Royale at Brussels I have found, since my paper was in type, some additional information as to Panciroli's book. A copy of it was in Van Hulthem's collection, and appended to the entry in the catalogue (Bibliotheca Hulthemiana, ou Catalogue Méthodique de la riche et precieuse Collection de Livres et des Manuscrits délaissés par M. Ch. Van Hulthem. Gand, 1836. 5 Tomes, 8vo) there is the following note:

Traité curieux, dont la traduction par Salmuth parut en 1599 avant l'original, composé pour le duc de Savoie. Comme on ne peut retrouver la copie du texte primitif, Gualterio, à la prière des neveux de Panciroli, suit l'ouvrage en italien, d'après le texte latis. Voy. Biogr. univ. vol. 32, p. 479, et la note.

This is an unexpected confirmation of the suggestion made in my note to § 8, that the Italian edition might have been re-translated from the Latin.

In the same library I found the only copy I have met with of the first edition of the second part, accompanying the first edition of the first part: 1599 and 1602. The 1599 volume is also in the British Museum, as I have already said, but not that of 1602. No apology, therefore, is required for the following account of the first issue of this book:

Rervm | Memorabilium | Iam Olim | Deperditarum : | & contrà | Recens Atqve Ingeniose | Inventarum : | Libri duo, | à | Gvidone Pancirollo : | Ic. Clariss. | Italicè primum conscripti, nec unquam | hactenus editi : | Nunc verò & Latinitate donati, & Notis quam- | plurimis ex ICtis, Historicis, Poëtis & Phi- | lologis illustrati | Per | Henricum Salmuth. |

Ambergae, | Typis Forsterianis, | Cum privilegio. | M. D. IC. |

Small 8vo. Signatures:)(, A to Z, Aa to Zz, Aaa to Coc, in eights; or pp. [16] 75z, 31 [1 blank]; last leaf, blank (?), is wanting.

Signature)(contains the Title, Salmuth's Præfatio to Frederick Count Palatine, dated: Amberg, 5th March 1599, Joachim Camerarius to Salmuth, commendatory verses, titles of the chapters, and a quotation from Scaliger. The text occupies pp. 752. Then follow a list of laws discussed in the book, Index Rerum et Verborum, and Errata.

On Ccc 7 recto is Forster's device, and beneath:

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Ambergze, | Ex Officina Typographica Mi- | chaëlis Forsteri. | M. D. XCIX. |
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The verso is blank, and Ccc 8 is wanting.

The second volume has the following title page:

Nova | Reperta, | Sive | Rerum Memorabilium, | Recens Inventarum, | et | Veteribus Plane | Incognitarum | Guidonis Pancirol' | li I.C. | Liber Secundus. | Jam primum ex Italico Latine reddi | tus, & Commentariis illustratus | Ab | Henrico Salmuth. |

Ambergae. | Typis Forsterianis. | M.D.CII. |

Small 8vo. Signatures: (:) in eight,):(in two, A to Z, Aa to Zz, in eights, Aaz in four; or, pp. [20], 719, [21, 2 blank].

The 20 preliminary pages contain the Title, Salmuth's preface to Christian, Prince of Anhalt, dated: Ambergæ, Kal. Martii, 1602, dedicatory and commendatory verses, and heads of chapters. The text occupies pp. 719. The unnumbered pages at the end contain the laws discussed in the volume, Index Verborum, and table of Errata. The last leaf is blank.

The earliest editions, therefore, seems to have been as follows:

Part	r I.		PART IL			
Second edition, Third edition,	Amberg,	1607. 1612,	First edition, Second edition, Third edition, (See Part II., p. 243.)	Amberg,	1608.	

The original Italian had been circulated in manuscript, and a copy had reached Salmuth, who had been a student under Panciroli at Padua, and who translated it into Latin. The translator, however, was a Lutheran; the book acquired a heretical strain, and it was ultimately condemned. Carlo Emanuele, Duke of Savoy, however, and the nephews of Panciroli, thinking this was a severe punishment of the innocent author, at last succeeded in

getting Flavio Gaultieri to make an orthodox version in Italian, excluding the objectionable matter which Salmuth had introduced, and this was published at Venice by Barnardo Giunti in 1612, 4°, as described above. This Italian version, therefore, is not the original, and Salmuth's translation, apparently, is not an accurate rendering of the original, so that what passes under Panciroli's name is not his book at all, but only an approximation to it. In this respect it is possibly unique among all the works I have had to specify. See Zeno's note in Biblioteca Dell' Eloquenza Italiana di Monsignore Giusto Fontanini, Parma, 1803-04, 4°, Tomo II., p. 276, note (a). Reusch, Der Index der verbotenen Bücher, Bonn, 1883-85, II., p. 161. Index Librorum Prohibitorum et Expurgatorum, Genevæ, 1619, 4°, p. 431, where a list of the condemned passages will be found.

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BIBLIOGRAPHICAL NOTES

ON

HISTORIES OF INVENTIONS

AND

BOOKS OF SECRETS.

SECOND SUPPLEMENT-

BY

JOHN FERGUSON, LL.D., F.S.A. LOND. AND SCOT. REGIUS PROFESSOR OF CHEMISTRY IN THE UNIVERSITY OF GLASGOW.

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1897.

75

Read to the Archaeological Society of Glasgow, 15th March, 1894.

100 Copies Reprinted.

No. VI.

BIBLIOGRAPHICAL NOTES ON HISTORIES OF INVENTIONS AND BOOKS OF SECRETS.

(SECOND SUPPLEMENT.)

BY

JOHN FERGUSON, LL.D., F.S.A. Lond. & Scot.,
REGIUS PROFESSOR OF CHEMISTRY IN THE UNIVERSITY OF GLASGOW.

(Read at a Meeting of the Society, held on 15th March, 1894.)

1. The "Notes" which were communicated to the Society on March 15, 1894, formed a supplement embracing the histories and receipt books which I had examined during the previous six years. In printing them, however, it has been found necessary, in consequence of their bulk, to take them in sections. The first of these, called the First Supplement. was printed in the Transactions for 1895, Vol. II., p. 364. It contained a list of histories of inventions and of collections of receipts written in Italian or by Italians. I had intended to pursue this method of division by countries with the remaining examples, but trial has shown me that while an arrangement based on language or nationality may be valuable for some purposes, it is not suitable historically for giving one a survey of the general progress of the arts, and still less bibliographically, since it separates translations from the originals, and thus fails to afford a complete view of the distribution and importance of a book. Keeping the bibliographical as the more accurate method of description before me, I have reverted to my original plan of treatment. The authors, therefore, in this Second Supplement, follow in chronological order, so far as I can ascertain it, and the editions of their books are taken together, irrespective of the language in which they were written, or into which they have been translated.

HISTORIES OF INVENTIONS.

- 2. In the previous supplement I had to enumerate the histories of inventions which I had acquired. Since then I have seen only two or three items which could be ranged under this head.
- 3. The first is a copy of Polydore Vergil's three books, without place, date, and printer's name, but supposed to have been printed at Strasburg by Schurerius about 1509. It is a small 4to, with an ornamental border round the title, and it contains the poem of Sabellicus at the end. There are copies in the British Museum and Cambridge University libraries. This is probably the first edition of the book which appeared in Germany, and it is different from that of Schurerius dated 1509, quoted in the list given in the first supplement.

In the same list there was included Han's undated edition in 8vo of the German translation, which contains a number of woodcut illustrations. Before it, however, the same translation had appeared in small folio, printed by Heinrich Stayner at Augsburg—the first edition in 1537, the second in 1544. Both are rare; for, during all the time I have searched for these books, it is only quite recently that I have acquired a copy of the 1544 edition. These editions also are enriched with woodcuts, boldly executed, and important as depicting the costumes, weapons, implements, buildings, actions, and ideas of people three and a half centuries ago. The 1544 edition contains the eight books, and has 10 preliminary leaves, and claxi of text. There is a copy of the first edition in the University library at Cambridge, and of the second in the British Museum. Both are mentioned by Beckmann as being in the Göttingen library.*

There is also a translation of the first three books into Dutch, which appeared at Amsterdam in three volumes in 16mo. Besides my own copy, the only one I have seen is in the University library at Ghent. It has no date, but it seems to have been issued late last century.

^{*} Beyträge zur Geschichte der Erfindungen, Leipzig, 1792, 111., pp. 574, 575.

- 4. In the second part of my "Notes" (p. 244) reference was made to the work in which Dutens endeavours to show anticipations by the ancients of modern inventions. It seems to have acquired a certain amount of reputation, for at long intervals editions of it appeared. Those originally quoted were the English of London, 1769, and the French of London, 1796—the latter entitled the third edition. I have now got a copy of the so-called fourth edition, in French, published at Paris in 1812, in two 8vo volumes, containing respectively: I., pp. [4] 281; II. [4] 420. Whether the numbering of these editions is consecutive or not, I am unable to say.
- 5. The only other work belonging to this section of the subject I have come across, is a little volume prepared for the instruction of vouth, entitled Petit Dictionnaire des Inventions. The third edition was published at Paris in 1825, and contains pp. [2] 11-286, with a symbolical frontispiece. The author gives a succinct account of ancient and modern discoveries in a manner as likely as possible to attract the readers for whom the book was prepared. It may be viewed as a modern counterpart to the Pleasant and Compendious History of Inventions, which was published at London in 1686, and was an alphabetical abstract of Polydore Vergil. From what is said on p. 284, this summary was written in the year 1812, and it is possible that this is not really a new edition, but a portion of the first issue with a new title page. The fact that pp. 1-10 are wanting seems to point to the cancelling of some preliminary matter which may have been thought not appropriate to the new title page. The book is interesting now as indicating what was considered worth knowing about discoveries and inventions at the beginning of the present century.

BOOKS OF SECRETS.

- 6. The books which have come together for consideration on this occasion, refer as it happens, with one or two exceptions only, to medical secrets. They are all prior to 1600, at all events in composition, and for the most part in publication.
 - 7. Under the name of Aristotle there has passed current for centuries

a treatise on the secrets of generation. So far as I am aware, it does not correspond to any of his original works, though it may be a later compendium from some of them. It is not to be confounded with the Secret of Secrets, another work ascribed to him, to which I shall refer presently. That upon generation was in great vogue, and cheap editions, accompanied by other tracts of similar tenor, used to be abundant, and are possibly still to be had. The treatise, however, is accounted spurious, and it is put among the pseudonymous Aristotelian works in the British Museum catalogue; but the authorship is a question of secondary importance at the present moment; it is sufficient that the book exists. The edition I have is not common, and it may, therefore, be described with some minuteness.

Aristotle's | Manual | of Choice | Secrets, | Showing | the Whole Mystery of | Generation. | With | Receipts to prevent | Barrenness, | and Cause | Conception. |

Very Necessary to be Known | and Practiced by all Midwives, | Nurses, & Young Married Women. | Translated out of Latin by J. P. | London, Printed for John | Back, at the Black-Boy on | London-Bridge, 1699. |

It is a small narrow 24mo, signatures A to F in twelves, misnumbered pp. 135 for 143, and I blank. This is a volume of varied interest: it is a London Bridge book; it seems to be the first edition, but this I should not like to affirm too strongly; it has a frontispiece of a birth, in which the attendant gossips are all—like so many hospital nurses—attired in a sort of uniform, with queer head-dresses; I cannot find it in the British Museum catalogue, although there are other editions there which resemble it; and I conclude that it is rare. The contents of this tiny manual—all things considered—are sober and sensible; though, of course, in some matters the author could not deliver himself from certain misconceptions of his time. As for the Latin original, I have not seen it, and I have failed to identify J. P. the translator.

Lowndes takes no notice of the book at all, but one finds instead this note: "Many other works have been published to which the name of Aristotle has been falsely affixed, but they are of no value or estimation." The comment upon which is that one wants descriptions of the books, not opinions as to their demerits; "I do not desire you to please

me; I do desire you to sing!" If would-be bibliographers acted on the principle of mentioning only books of merit, what need would there be for bibliographies at all?

8. The other work ascribed to Aristotle—a letter on the regulation of life, addressed to Alexander the Great—was mentioned in Part IV., p. 325, in connection with the English abstract of 1702. I have now got a copy of the complete work. The title is as follows:

SECRE
TA SECRETORVM.
ARISTO
TELIS:
Cum priuilegio.

It is a small square 8vo; A to O in eights (P dropped?), Q in 2; folios numbered i-cxiii, the last leaf not being numbered. Black letter, 31 lines to the page. On the verso of the last leaf is the colophon:

Explicit feptifegmentatum opus ab Alexandro Achillino ambas ordinarias & philosophie & medicine theorice publice docente: vt non amplius in tenebris latitaret editus Et impressus Parisiis An no domino. 1520.

The title page has a quaint appearance. The title, arranged irregularly in large Roman capitals, is in red, and is enclosed in a border of separate pieces in black. The words *Cum privilegio*, in gothic letter, are also in black.

No copy of this book is mentioned by Panzer, Brunet, or other bibliographer. It is a coincidence that, of the various editions of the book before and after 1501, it should be that of 1520 which has come to be described now, after the lapse of eleven years from my former notice of the work. For it was this very edition of 1520 which the editor of the abstract of 1702 says was so rare, that "it was not to be bought or seen (as far as he could find) anywhere but in the Bodleian Library at Oxford, and with one Gentleman in London."* In the British Museum there is a copy of the

^{*} See Part IV., p. 326.

1520 edition (520.a.12), but I have not as yet examined it. Can it be the copy which belonged to the "Gentleman" just named?

In the Bodleian catalogue there is no copy of 1520, but I find instead the following entries under Aristoteles:

De secretis secretorum ex Arab. MS. in Lat. per Philippum quondam clericum. 4° s. l. et a.*

... acc. de signis tempestatum, ventorum et aquarum et de mineralibus, Lat. ed. Alex. Achillino. fol. Bon. imp. Bened. Hectoris. 1516.

I have not seen either of these books, and am unable therefore to speak with certainty; but I cannot help thinking that the former, De secretis secretorum, is identical with the first section (or part of it) of the 1520 edition, entitled "Secretum Secretorum," and that the latter corresponds with the section immediately succeeding that in the 1520 edition: "Maximi phylosophi Aristotelis de signis Aquarum: ventorum: & tempestatum," and "Aristotelis de mineralibus." I infer, therefore, that these two editions were practically reprinted in 1520. The later edition contains besides: "Alexander (sic) Aphrodisei de intellectu"; "Averrois de beatitudine anime"; "Alexandri Achillini Boniensis de Universalibus"; and "Alexandri Macedonis ad Aristotelem de mirabilibus Indie."

The treatise "Secretum Secretorum" has been known for the last eight or nine hundred years. It seems to have been originally an Arabic compilation which was made from the Greek, amongst other sources, and was turned by clerk Philip, whoever he was, into Latin. The part relating to physiognomy formed the groundwork of the tract on the same topic, which was edited by Michael Scotus, so that what there is to say about it had better be reserved for my bibliography of the works of that writer.

The English version of 1702 includes only a part of the treatise as it appeared in 1520, and of what is given portions are condensed, so that the editor quite correctly announces that it is "contracted." From what he further says, the version published in 1528 was also shortened, but I am not in a position to confirm the statement. The work, however, as I said formerly, falls within the scope of these notes rather on account of its name than of its contents.

^{*} This seems to be Hain's No. *1779.

9. Of the famous works ascribed to Albertus Magnus, De Secretis mulicrum and De Secretis natura or Liber aggregationis, several copies have recently come into my hands. Notwithstanding the multitude of editions through which they passed, copies are not common. As for those printed previous to 1501, they seldom appear in catalogues at all.

The earliest example which I have met with lately has no date or place, but was printed at Paris in the early years of the sixteenth century. The device on the title page is that of André Bocard,* who began to print at Paris a few years prior to the sixteenth century. The present work, I have no doubt, is subsequent to 1501. It is not in Hain, and I have failed to identify it with any of the editions in the Museum catalogue, or in Brunet or Graesse.

Secreta mulierü et virorum | ab Alberto magno composita. | [Device.] No place, date, or printer.

Small 4to. Signatures: a8, b and c in six, d8. No pagination. 42 lines. Black letter.

Collation: [ai] recto: Title page. The device consists of two tree trunks, with flowers. On the dexter trunk is suspended a shield with the arms of the University of Paris; on the sinister trunk a shield with the arms of the city of Paris; above all are two angels carrying a shield with three fleurs-de-lys, the arms of France, and above the shield is a crown. Round the device are the words:

HONNEVR · AV · ROY · ET : ALACOVET SALVT · ALVNIVERSITE DONT · NEE · BIEN · PROCEDE · ET · SOVET : DIEV · GART · DE · PARIS · LA · CYTE. :: The verso is blank.

aij rate: f Cribit philosophus phorum priceps quarto ethico4 | Homo est optimu eo4 que sunt in mudo. Et mudus | etc.

Ends dviij verso: Ca. duodecimum e vltimum de gnatione spermatis in viro.

Since the preceding was written, I have acquired another Paris edition:

Secreta mulierum | Et virorum nuperrime corre- | pta et emendata. 58 | [Device.]
Uenundătur Parisiis ab Joan | ne Paruo comorate i vico sancti | Jacobi sub signo
Lilii aurei. |

Small square 8vo; a to e in eights, f in four. In small black letter, 33 lines to the page. The device on the title page is Petit's initials on a shield,

^{*} Louis-Catherine Silvestre, Marques Typographiques, Paris, 1853, No. 5. He says Bocard printed from 1496 to 1531, but according to the following authority a book seems to have been printed by him in 1494; Gravures sur bois tirées des Livres Français du XIO Siècle, Paris, Adolphe Labitte, 1868. 4to. Bocard's device is Fig. 324, and is on the title page of this volume; a suitable vignette for a Paris book.

suspended on a tree, with cupids and birds in the branches, the shield supported by a lion and a leopard.*

An edition of the parallel work of Michael Scotus was also published by Jean Petit, but the two are not quite uniform.

An edition similar to Bocard's, undated, but printed early in the sixteenth century at Paris, I found recently (April, 1896) in the Mazarine Library. I made the following note upon it:

Secreta mulieru | et virorum ab alberto magno complita (sic).

[Device. In a double border of flowers and grotesque figures is a tree with a shield: 3 roses above a crescent supported by two winged stags rampant, with crowns round their necks (gorged). Tied to the trunk of the tree by a ribbon are the initials, R.G., and below all: ROBERT GOVEMONT.]†

4to or large 8vo, a to d in sixes. Small black letter, double columns. ai Title.

aii recto: Scribit philosophus philos fophorū princeps quarto ethicorū.... the text ends dvi recto: on the verso Gourmont's device is repeated.

The copy which I got at Klemm's sale in 1889, at first sight seemed to be merely a duplicate of that in the British Museum, described in my Notes, Part III., p. 210. More minute examination, however, and direct comparison of the two copies, showed that though both were printed in uniform style at Antwerp in 1538, by the same person, they are different throughout. As the present is another case of two different issues with the same date, it may be worth while to indicate some of the variations by which one issue can be discriminated from the other. The following will suffice, though similar instances will be found on every other page.

The transcript of the title page of the British Museum copy already given, suits the present one except in the following minute points:

Museum copy.
Title, l. 10: | philofophiæ, quàm Me- |

- l. 15: olfaciēs.

 In the shield in the centre of the printer's ornament there is a cross. Present copy.
| philosophise quam Me- |
olfaciens.

The shield is blank.

^{*} Silvestre, Marques Typographiques, Paris, 1853, No. 25. Petit printed between 1493 and 1541. The present volume belongs to the early years of the sixteenth century.

⁺ Gourmont's device is given by Silvestre, *Ibid.*, No. 81. He printed between 1498 and 1518.

The following are other differences:

Museum copy.

Title leaf or Ai verso:

Prohemivm. | Scribit Philosophus
Philosophorum prin- |
Ai verso, last line ends:
Genimi (sic), Leo. |
Aii recto, last line:
medicinalis. |
Aii verso. The small print of the note
runs on continuously.
Aiij racto, last lines:
... appetitu intellectua- | li, quia vidit

... appetitu intellectua- | li, quia vidi vtilitatem cognitionis earum. | Aiij versa, line 1 : Secundo

last line:Vnde natu | ra | Diiij recto, l. I. V is an ornamented capital.

Fviij recte, l. 3. A is ornamented.

Present copy.

Prohemivm. | Scribit Philosophus philosophorū princeps: |

Gemini, Leo. Illis correspon- | Last lines: partim medi- | cinalis. Divided into two paragraphs at l. 23, beginning: Sapientia est cognitio, etc.

... appetitu intellectuali, quia vidit |
vtilitatem cognitionis earum. |
fecundo
... Vnde nam | nihil |
plain.

plain.

In the Museum copy the numbers ij, iii, iiij in the signatures are written separate, in my own copy ij, etc., are written together. Contractions occur in the Museum copy which are wanting in mine, and vice In the fourth line of the colophon (Gvij verso) the misspelling recongnitis as it stands in the Museum copy is correctly given recognitis in the other. The two issues differ typographically throughout, and the whole book must have been set up twice. It is difficult to believe that this happened in one year, and the fact that both issues have precisely the same date, seems rather to indicate that one is a reprint of the other, including the date, so that there may have been an interval of time It could not have been long, however, for they have certainly issued from the same office. If this supposition be correct, I should think that the Museum copy belonged to the earlier edition, and that the other, in which the errata Genimi and recongnitis are wanting, was the later. Anyhow it is an event in the history of the book that there were two similar issues of the same year, just as happened in the editions of Lyons, 1566, as described in Part III., p. 210.

Another copy was acquired by me subsequent to this supplement being

read to the Society. It is dated Lyons, 1584, and is a small square 16mo, pp. 381, [11]. It contains also the analogous tract of Michael Scotus, and appears to be the second edition in this form. There was another at Lyons in 1580, but I have not seen it. This is one of the early examples of the pocket editions of Albertus, of which so many appeared in the following century.

Corresponding to this, and undoubtedly one of the least known of all these books is the French version of Michael Scotus' *Physionomia*, made by Nicole Volkyr de Serouille, and published at Paris in 1540, in a small square 16mo. This is a book to which there is no reference by Brunet, and of which I have never seen any copy but one. It is not in the British Museum. An account of it, however, belongs properly to the bibliography of the wizard, and must be omitted here.

The following German version I found in the British Museum (07581. df. 19):

Albertus Magnus | Von haimlichait der frawen | Auch ist dauon schreijben Arestoteles · Galienus · Boe | cius · Constantinus · Ypocras · Auicenna &c. Als dann | hernach volget jnn disem büchlein. Du vinndest auch | mancherlaij frag menschlicher vn thierlicher natur. | [Vignette.]

Small 4to. a, b, in eights, c in six, no foliation. Black letter.

The vignette is an elderly man, presumably Albertus, expounding secrets to a woman. cvj recto has this colophon:

[Hije ennden sich mancherlaij fragen mennschlicher | vnd thierlicher natur vnnd geschicklichait. Als die na | türlichen maijster dauon schreijben sind. Als Albertus | magnus · Arestoteles · Boecius · Cöstantinus · Egidius | Galienus · Auicenna · vnnd Ypocras &c · Anno &c · jm | zehenden jare. | verso is blank.

The B. M. catalogue assigns the date 1510 to the book.

This is not a translation of Albertus' book, but is a collection from the authorities mentioned. The subject is discussed in catechism form: "Why?" is this, that, or the other thing—and the answer is: Aristotle, or Albertus, or Galienus says so and so. It is therefore a popular summary of physiological teaching, specially interesting to women. It contains, of course, a number of curious notions, but valuable as illustrating the beliefs of the sixteenth century.

10. Next come the copies of the Liber Aggregationis as it is called, of

which quite as many editions appeared separately and conjointly as of the other. It deals with the Secrets of Plants, Stones, and Animals, and in some of the editions there is included another tract on the Wonders of the World. Several editions in Latin have been described in previous parts of these "Notes," those which are now to be mentioned are translations into German and English.

Drei Bü- | cher Alberti Mag- | ni, Von wunder natürlichen | wirckungenn der Kreutter, | Edelgesteyn vnnd Thier, | mit leblicher Conter- | feytung derselbigen. | ... | 1536.

Small 4to. Signatures A to E in fours (E four is blank) or, ff. [1-2] 3-19. The title is enclosed in an elaborate border, and there are illustrations through the text.

Eiij verso: ([Gedruckt zu Franckfurt am Meyn | Bei Christian Egenolph. | 1536. Eiiij is blank.

At the top of the title in a compartment is a battle of nude warriors. At one side of the title are the three Graces; at the other a female holding a child on her right arm and a flaming heart in her left hand, with another child at her feet. In a large compartment at the bottom is represented a walled place with trees and a fountain. In it are nine female figures, some nude, others draped, and a male figure with a laurel wreath. The females are occupied in different ways, and the whole may be meant for Apollo and the Muses. On the verso is a woodcut to illustrate Exod. 17. The woodcuts of the plants are lifelike and spirited if rough, and those of beasts and birds are humorous. The text in this edition is curtailed as much as possible, every word and phrase that could be dispensed with having been omitted. It contains only the briefest account of plants, minerals, and animals.

Albertus Magnus. | Das Büch der haymligkayten Magni | Alberti, von Artzney vn tugendē der Kreut- | ter, Edel gestayn, vnd von etlichen wol- | bekanten Thieren. | [large woodcut.] M.D.XXXX.

Small 4to. Signatures A to K in fours, no leaf or page numbers.

Kiij verso. Gedruckt zu Augspurg durch Haynrich Stainer.

Kiiij recto a woodcut.

Two-thirds of the title page are filled by a woodcut of a man in a study, sitting at a desk writing. It gives one an excellent idea of the furniture of such a place in the middle of the sixteenth century. The

woodcut at the end represents a doctor, with gown and biretta, sitting at a reading deak consulting a book. In front of him is another holding up a glass matule and looking at the contents.

This is a larger book than the preceding, for besides a fuller version of the secrets of plants, minerals, and animals, it contains an introductory chapter on "Signs of Birth and Fruitfulness," and at the end a number of receipts against ailments, the preparation of certain waters and powders, and a series of directions against the plague. The last may be compared with those given by Vicary (see § 17).

The translation is different from that which appeared in 1725 (Part III., p. 214).

The Liber Aggregationis and the tract De Mirabilibus Mundi were translated into English, and I gave an account of the black-letter edition of 1617, in Part III., p. 214. A copy is in the British Museum. There are other two editions now to specify. One is that printed by William Copland in the sixteenth century; the other appeared early last century. A copy of the former exists in the University Library, Cambridge. The following is a brief account of it. I am not certain whether this is the first edition of the English translation or not.

Ai Title-wanting	.	
Aii recto.	(The first booke of the vertues of certayne Herbes.	ends Bviii recto.
Bviii recto.	(I Here beginneth the fecond booke of the vertues of certayne ftones.	ends Ei <i>recto</i> .
Ei rato.	(The thyrde booke of Albertus Magnus, of the vertues of certayne beaftes.	ends Fii <i>recto</i> .
Fii <i>100</i> .	(I Here are ended fome fecretes of Albartus (sic) Magnus of Colone vpon Natures Vertues, and effects of certain Herbes, Stones, and Beaftes. And here foloweth in what houre, euery Planet hath his dominion.	
	()	ends Fvii versa

Fviii recto.

T Heere beginneth thee booke of the marueyles of the worlde, fet forth by Albertus Magnus.

ends Liii verso

as follows:

(I An ende of the secreetes of Nature, set foorth by Albertus
Magnus in Latine,
newlye translated into English.

(Imprynted at London by me Wyllyam Copland.

Small 8vo. Signatures A to K in eights, L in four, no pagination or foliation. Biiii is misprinted Ciiii. Black letter throughout.

22 lines to the page, excluding the head line and catchword line.

This copy unfortunately wants the title (Ai) and Liiii. There is no date, but Copland printed from 1548 to 1568-9.* His edition is quoted by Lowndes and by Graesse (*Trésor*, I., p. 56). It is not in the British Museum, and it is not mentioned by Herbert or Dibdin, so I take it to be most rare. The only copy I know of is that just described.

Cooper (Catalogue of Chymical Books, London 1675) speaks of an edition of 1637, which keeps entirely out of sight.

The other copy which has just come into my hands is comparatively modern: it is in its original appropriate sheep cover, and is clean and whole. So far as English books go, this is one of the greatest novelties, and is certainly another rarity. During all my observation and collecting of these books I have never seen or heard of another representative of this edition. As of similar books, the copies were probably worn out by use.

The | Secrets | of | Albertus Magnus: | Of the Vertues of Herbs, | Stones, and certain Beasts. | Whereunto is newly added, | A short Discourse of the Seven Pla- | nets, governing the Nativities of | Children. | Also a Book of the same Author, | Of the Marvellous Things of the World, | and of certain things, caused of | certain Beasts. |

London, | Printed by M. H. and J. M. and are to | be Sold by J. Wright, J. Clarke, | W. Thackeray, and T. Passinger. |

^{*} Dictionary of National Biography, XII., p. 174. The present work is not mentioned there.

16mo. Signatures A to H in eights. No pagination. Roman letter. The title is in a narrow border. No date, but about the end of the 17th or beginning of the 18th century. A chap-book.

At r. The title. verso: to the Reader.

A2. Blank.

A3 r. Text of the Secrets begins, and ends E1 r.

EI v. The order of the Planets, ends E8 v.

FIr. Book of the Marvels of the World, ends H8r. The verso is blank.

Passenger in 1691 published *The Complete Servant Maid*. He was then on London Bridge. This book is of about the same date.

11. Since 1883, when I considered certain copies, both in print and in manuscript, of Bartholomew Glanville's work De proprietatibus rerum, and 1884, when I commented on the charge of plagiarism which had been brought against him, and showed a 15th century MS. of the same work, I have met with one or two items which had not been already alluded to. Besides these, however, I am able to include another and very fine copy of the Strasburg 1485 Latin edition, credited to Wynken de Worde, and a copy of Berthelet's English edition, 1535. The latter. which is in the Hunterian Library, I had already described, but could The present copy can be exhibited, without the necessity not exhibit. of describing it. A good deal of what seems to me now rather misplaced laudation has been expended on this volume. Lowndes says it is probably the finest specimen of Berthelet's printing. I have too limited a knowledge of his printing to either challenge or confirm that statement, but I have seen certain small tracts which to me are more attractive, both from the type used and the appearance of the page. In Glanville's book the letters seem commonplace, and the page is loaded and heavy for its size; and while it is undoubtedly a respectable solid folio, I could not say that it is a "magnificent book." certainly not to be compared with the 1480 edition in Latin. Still, if it be not absolutely beautiful, it is sufficiently rare, and it is sufficiently in demand on account of its contents and the English in which they are couched, to make it a prize when it does occur.

One of the novelties which I have to bring before you is the reprint that appeared fifty years later, edited by Stephen Batman. This is

an important book for several reasons, and a description of it may be given.

Batman | vppon Bartholome, | His Booke | De Proprietatibus Rerum, | Newly corrected, enlarged and amended: | with fuch Additions as are requi- | fite, vnto euery seuerall | Booke: | Taken foorth of the most approued Authors, the like here- | tofore not translated in English. | Profitable for all Estates, as well for the benefite of | the Mind as the Bodie. | 1582. | London | Imprinted by Thomas East, dwel- | ling by Paules wharse. |

Small folio. Signatures: 2 leaves; ¶, ¶¶, B to Z, Aa to Zz, Aaa to Zzz, Aaaa to Cccc in sixes; or, 14 leaves not numbered and 426 numbered. Black letter. Double columns of 53 lines each.

Collation: Title, surrounded by a broad border of scrolls. Verso, arms of Batman (?) with an interpretation of them in 14 lines of verse.

Leaf 2, recto. Batman's dedication to Lord Henry Cary.

- verse. Batman to the Reader.

¶ 1 rate, the Prologue of the Translator. verse, a collection of the Authors. Ends ¶ 6 rate, the verse of which is blank.

II recto. Generall Table of the chapters, ends II vi verso.

Bi rate. The Text begins, and ends Cccc vj verso. At the end of the Text is the printer's coat of arms, with the crest of the black horse having a crescent argent on its left shoulder, with the motto

MIEVLE · VAVLT · MOVRIR · EN · VERTV · | QVE · VIVRE · EN · HONCTE.

¶ Imprinted at London by Thomas East.

Part, at least, of the value of this book depends on its being not a mere reprint of Glanville's encyclopedia, but a veritable new edition; for Batman has made considerable "Additions," which are always distinguished from the original by that word as a heading or on the margin, and he has been at very considerable pains to make the book as useful as possible. The table of authors is an addition of his, and it is not a mere list, but it gives biographical notices of various writers quoted throughout the work. These are necessarily brief, but they are both useful and curious, even for their inaccuracies, as when Cornelius Agrippa is called a "Spaniard of excellent learning." As Batman was therefore fully alive to the advance of the times, and did his best to accompany it, his revision is a necessary adjunct to the two earlier editions of the English translation.

Batman's own account "To the Reader" of the occasion of his editing the work, is quite worth quoting in full:

This booke, beeing first set forth, in the yere of our Lord God. 1360. The Author whereof is reported to be a Franciscan Frier, of the noble familie of the Earles of Suffolke (named Barthelmew Glantuile) who studeously gathered this fingular worke, for the most part, of the properties of those things the which he had found written in the Bible, to the onelye benefit of his Countrie: which booke, was had in great estimation among the learned, as well beyond the sea as at home, vntill within 60. yeares past, there sprang vp famous, and worthy persons, of singular perseuerance and learning: which from the course of auncient beginnings, fet foorth the same that was formally written of, with additions auniwerable to time present, vsing new Titles, wherevnto is added fo much as hath bene brought to light by the trausile of others, as Conradus Gesner of Tygure, Phisition, writing of the nature of beasts, birds, fishes, & Serpents, Fuchfius, Mathiolus, Theophrastus, Paracelfus, and Dodoneus, these wrote of the natures, operations and effects of Hearbs, Plants, Trees, Fruit, Seeds, Metalls and Mineralls. Sebastian Munster, Henry Cornelius Agrippa, and others of Astronomie and Cosmographie. Abraham Ortelius of Antwarpe for maps and discriptions: all which woorkes hath done great good in diverse and fundrie Commonwealths. I have therefore as an imitator of the learned, for the good will I bare to my countrie, collected forth of these aforesaid Authors, the like deuises, which they in times past gathered of their elders, and so renuing the whole booke, as is apparant by additions, is brought home, the Master, the Pilot, and the profit thereto belonging, defiring the wellacceptation of the same, and the friendly correction, if anye wordes shall happen to be mistearmed in the imprinting (hoping that there will be found very fewe.) . . .

It is of considerable interest to find some of the writers, to whom reference has been now so often made, flourishing as Batman's authorities three hundred years ago.

To the list of the editions of this remarkable work I am able to add a notice of the translation into Dutch. It was printed at Haarlem, by Jacob Bellaert, in 1485, and forms a thick quarto volume, double columns, in black letter. It is adorned with a number of full-page illustrations, as of birds, beasts, fishes, the earth, the stars, human employments, and one or two others. These are interesting; spirited sometimes, sometimes humorous, and always characteristic. The copy I have contains 464 leaves; the first and last leaves, which are blank, are wanting. Hain (No. 2522) mentions the translation, but not having seen a copy gives no collation. There is one in the British Museum. The book is of course described by Campbell,* and is quoted by Panzer and others.

^{*} Annales de la Typographie Néerlandaise au XV o Siècle, La Haye 1874, p. 67.

According to Campbell the large woodcut at the end represents the arms of the printer, but the Museum catalogue says the arms of the city of Haarlem.

12. Inasmuch as the treatise on practical medicine by Valescus de Tharanta is nowhere called "Secrets," it ought not, in accordance with the rules to which I have tried to adhere, to form part of these "Notes." But whereas it deals with the same subject, and very much in the same way as other works which, because they happen to bear the title of Secrets, have been included, it is attaching undue weight to what is after all the arbitrary limitation of a mere name, if it be passed over. Strictly speaking, summaries like the present belong to the history and bibliography of medicine, and not of the arts; but considering that they are sometimes distinguished as books of receipts, and embrace not only medical but technical and other secrets as well, it has not been possible to refuse them recognition universally. Anyhow the present one may be mentioned, if for no other reason than as a precursor of Varignana's treatise mentioned in the first supplement, Trans. (N.S.) II., p. 381.

The biography of the author is meagre, and is based mainly on his own Prologus. He there calls himself "Valescus, gallice Balescon de Tharanta," and says he was a doctor of arts and medicine, but in his humility he calls himself more than once "discipulorum medicinæ discipulorus." At the close of the prologue he tells us that he began his book in the year 1418, the eve of St. Barnabas the Apostle, after thirty-six years spent in medical practice; and he then refers to certain contemporary events by way of confirming this date. He says this was in the first year of the pontificate of Martin, "remoto scismate." † King John was reigning in Portugal, constantly at war with the Saracens. † Of the

^{*} Hain (Repertorium, No. *15244) puts him under the form Valastus de Tarenta, which occurs in some editions of his works.

[†] This is correct enough. Pope Martin V. was elected November, 1417; the Antipope Benedict XIII. was deposed the same year, and John XXIII., who had been deposed in 1415, and was kept in prison till 1419, recognized Martin V. at Florence as a condition of regaining his freedom. So that the schism was at an end for the time.

[‡] John L the Great; but, so far as I can ascertain, it was with Castile rather than with the Saracens that he was in conflict.

country of Foix and Béarn, Isabella, his mother, was countess and mistress.* "Carolus Albricus," "the most faithful king of France," was then reigning, "with wars and troubles which increased mightily throughout the whole kingdom."† The English were fighting in Normandy, and took possession of Rouen. These dates and events certainly coincide with the time at which Valescus was busy with his book. They were examined also by Astruc, ‡ who viewed them as confirmatory of Valescus' accuracy as a contemporary chronicler.

Ranchin calls him a Portuguese, and says that during the "vacances" he visited his native country every year. Subsequent writers repeat this statement.

The date of his settling in Montpellier is not quite fixed; it may have been about 1380, but from the above remark in his prologue, he must have begun the practice of medicine in 1382. He pursued this profession "with marked success and distinction," and ultimately became one of the most distinguished ornaments of the medical school at Montpellier. Castellanus says he was chief physician to the king of France.

The earliest summary of his life I have met with is by the said Petrus Castellanus, § which is worth quoting:

Valescus de Taranta, Monspelii, circa ann. Domini CIOCCLXXXII. Medicinam laude magnå, & multorum fructu insigni facere ccepit. In quo genere studij cum triginta sex annos continuasset, quæcunque & lectione, & quotidianis experimentis didicerat, in unum volumen congessit, quod *Philonij* nomine circumfertur. Tradunt etiam Archiatrum fuisse Regis Gallorum.

^{*} See Ersch u. Gruber, Encyclopädie, XLVI., p. 119.

[†] Charles VI., bien-aimé, the well-beloved. I have not traced the name "Albricus." He had certainly numerous wars on his hands. Agincourt was fought in 1415. Rouen capitulated in January, 1419.

[‡] Mémoires pour servir à l'Histoire de la Faculté de Médecine de Montpellier, Paris, 1767, 4°. See pp. 208-211, where an account of our author is given.

[§] Vitæ Illustrium Medicorum qui toto orbe, ad hac usque tempora floruerunt. Antverpiæ, 1618, p. 166. Castellanus, Pierre Duchâtel, was an antiquary and physician, and became professor of Greek at Louvain. This volume contains 180 brief biographies, alphabetically arranged, a list of which is given by Mercklin (Lindenius Renovatus, Norimb., 1686, p. 883). The reprint by Gronovius, Thesaurus Gracarum Antiquitatum, Lugd. Bat., 1701, X., col. 853, contains only the biographies of Greek physicians, and should not have been put forward as Castellanus' complete work. See Stolle, Anleitung zur Historie der Medicinischen Gelahrheit, Jena, 1731, p. 243.

Mercklin,* to the preceding, which he has simply copied, has prefixed the statement: "Natus est Monspelii circa A.C. 1382," and subjoined another: "obiit circa A.C. 1418, ætatis suæ 36," without apparently having observed the irreconcilability of the statements. Mangetus,† who quotes the passage from Mercklin in full, directs attention to the discrepancy, but makes no attempt to remove what is obviously a muddle on Mercklin's part. Freher takes his account from Castellanus and not from Mercklin, but he commits the same error of placing his death in 1418. He adds, however, from Caspar Schott,§ the wonderful story of the rejuvenescence of a prioress, which Valescus || uses as an illustration of that subject. Kestner ¶ gets round the difficulty by giving no dates at all, but he is misled by Mercklin into saying that he was a native of Montpellier. He corrects, however, one or two mistakes of other writers. Portal,** following Ranchin, calls him a Portuguese, and gives a favourable notice of his book.

Eloy †† calls him a native of Montpellier, and repeats that he became physician of Charles VI. "about 1400." This is a new date added on to the older accounts. He says he made some excellent observations, which were still founded on in Eloy's time. He adds that Valescus did not understand Greek, and wrote shocking bad Latin. In the later edition ‡‡ there is an entirely new and in every respect a more satisfactory account,

^{*} Lindenius Renovatus, Norimb. 1686, p. 1036.

[†] Bibliotheca Scriptorum Medicorum, Geneva, 1731, II. ii., p. 355.

[‡] Theatrum, Norimb. 1688, p. 1211.

[§] Physica Curiosa, sive mirabilia Natura et Artis, Edit. altera, Herbipoli, 1667, p. 419. Schott calls him Valesius Tarentasius.

Philonium, Lib. VI., cap. 12. Rembert Dodoens, or Dodonzeus, at the close of a small volume, Medicinalium Observationum exempla rara, Colonize, 1581, pp. 289-293, Hardervici, 1621, pp. 205-208, quotes a few striking cases from the De Curandis Morbis or "Valescus Tharantanus." Of course the prioress figures as one of them, p. 291, or p. 207. The story is told also by De Longeville Harcourt, Histoire des Personnes qui ont vecu plusieurs siècles . . . , Paris, 1715, p. 268.

[¶] Medicinisches Gelehrten-Lexicon, Jena, 1740, p. 834.

^{**} Histoire de l'Anatomie, Paris, 1770, I., p. 237.

[#] Dictionnaire Historique de la Médecine, Liège, 1755, II., p. 431.

^{###} Dictionnaire Historique de la Médecine, Mons, 1778, IV., pp. 458-9. Still there are slips; for instance: "Il se donne lui-même le nom François de Balescon de Tharare, dans la préface," etc. (p. 458).

which Dezeimeris has done little but copy and condense. Following Astruc Eloy praises the *Philonium* for its matter, but condemns it for its barbarous style. He does not know upon what authority Castellanus calls him the chief physician of the king, for his name is not found in the best lists of these physicians.*

Another writer who criticises his style is Albrecht v. Haller,† and he calls him "verbosus auctor," but credits him with discussing the opinions of others and expressing his own views. He gives a long but not very clear list of the editions of the *Philonium*.

Writers on the history of medicine during the present century have just repeated the older accounts. Dezeimeris' article,‡ for instance, is practically taken from Eloy, as I have just said. It is accurate, and as full as is possible within the limits of the book; it gives a list of editions and references to the authorities, though the latter are not sufficient, seeing that Eloy is omitted.

Upon this in turn is based the article by Gurlt, who has not attempted to add anything new.

A short notice of him was given by A. W. E. Th. Henschel, in 1852, but this writer has not included a few quite legitimate facts, such as the

^{*}While on this matter, it may be remarked that Dezeimeris says Tiraqueau, as well as Castellanus, Ranchin and Conring, gives him this title. He does not mention the passage, and it is possible, therefore, that I have overlooked it; but in one place Tiraqueau certainly does not give him the title: "Valescus Tarentinus, quem de Tarento vulgò appellant, cuius est Practica quam Philonium nuncupant, et alia quædam opera." See André Tiraqueau (Andreas Tiraquellus) Commentarii de Nobilitate, Lugduni, 1617, fol., p. 291, in the section in which he discusses whether the practice of medicine detracts from nobility. He gives a long alphabetical catalogue of physicians, in which the above appears.

[†] Bibliotheca Medicinæ Practicæ, Bernæ, 1776, Tom. I., pp. 454-5.

[†] Dictionnaire Historique de la Médecine Ancienne et Moderne. . . par MM. Dezeimeris, Ollivier (d'Angers) et Raige-Delorme, Paris, 1828-39, T. I., pp. 259-60. The author is called Balescon de Tarente, or de Tharare, in this work.

[§] August Hirsch, Biographisches Lexikon der hervorragenden Aerste aller Zeiten und Völker, Wien und Leipzig, 1884, I., p. 269.

In his "Biographisch-litterarische Notizen, berühmte Wundärzte und Aerzte des XIII. und XIV. Jahrhunderts betreffend," article 34; published in Janus, Central-Magasin für Geschichte und Literärgeschichte der Medicin . . ." Gotha, 1853, II., p. 422.

undoubted popularity of the *Philonium*. He mentions only the Venice edition of 1502!

Haeser * furnishes a fuller review than Henschel, and has endeavoured to give a complete list of the editions. There is, however, a vagueness about it which renders me doubtful about several of them, especially as he does not seem to have any stronger support than the enumeration in Panckoucke's article.† He also is confused, for he says that Valescus lived at Montpellier from 1382 (which is not certain) and finished his treatise, the fruit of thirty-eight years' work, in 1418. These figures do not harmonize with those of Valescus himself.

A portrait of Valescus is contained in the Ephémerides médicales de Montpellier, for 1887.1 I have not had the fortune to see it.

To a certain extent the confusion about the events of his life envelops the editions of the *Philonium* as well. It may, therefore, be convenient to have a digest of those which have been enumerated.

	Mercklin.1	Manget.2	Eloy.3	Panzer.4	Panckoucke. ⁵	Haeser.	Billings.7	Br. Mu.
Lugd.	. —		_	1478	_	_	_	_
Lugd.	1490	1490	_	1490	_	1490	_	_
Lugd.	. –	_	_	1490	_	1490	_	_
Ven.	-	_	1490		1490	1490		
Lugd.	. –	_	_	1496	_	_	_	
Lugd.	1500	1500	1500	1500	1500	1500	1500	
Lugd.	. —	_	_	1501	_	_	1501	1501
Ven.	_	_	1502	1502	1502	1502	1502	I 502
Lugd.	_	_	_	1516	_	1516		

¹ Lindenius Renovatus, Norimbergæ, 1686, p. 1037.

² Bibliotheca Scriptorum Medicorum, Genevæ, 1731, II. ii., p. 355.

³ Dictionnaire Historique, Mons, 1778, IV., pp. 458-9.

⁴ Annales Typographics.

Biographie Midicale, n.d., VII., p. 390.

⁶ Lehrbuch der Geschichte der Medezin, Jena, 1875, I. 712.

⁷ Index Catalogue of the Library of the Surgeon-General's Office, by John S. Billings, Washington, 1894, XV., pp. 560-1.

^{*} Lehrbuch der Geschichte der Medicin, Jena, I., pp. 712, 713.

⁺ Biographie Médicale, n.d., VII., p. 390.

[‡] It is referred to in the Index Catalogue of the Library of the Surgeon-General's Office, by John S. Billings, Washington, 1894, XV., p. 561.

	Mercklin.	Manget.	Eloy.	Panzer.	Panckoucke.	Haeser.	Billings.	Br. Mu.
Ven.	1521	1521	1521	-	1521	_	1521	_
Lugd.	. —	_	1521	_	1521	1521 (?)	_	_
Lugd.	1526	I 526	1526	1526	1526	_	1526	1526
Ven.	1532	1532	1532	_	1532	1532 (?)		
Lugd.		_	1535	1535	1535	1535	1535	-
Lugd.			1560	_	1560	1560	_	_
Ven.	_	_	_	_	_	1589	_	_
Franc	f. 1599	1599	1599		1599	1599	1599	1599
Lugd. Franc	–	_	_	7	_	1599	_	_
Lpg.		1680	1680	-	1680	1680	1680	1680
Leipz		_	1714	_	1714	1714	_	-

I have examined, and may briefly describe the editions of 1501, 1502, 1526, 1599, 1680 in the British Museum; 1490 in the Hunterian Library; and 1501 and 1535 in my own collection.

The edition of 1478, Lugduni, per Johannem Cleyn, 4to, is quoted by Panzer (Ann. Typ. I. 532, 13), from Catalogus Bibl. Jo. Frid Christii, Lips. 1757, I., p. 234. He calls it editio dubia, and says that the date should probably be 1488, as the name of Cleyn as a printer does not occur earlier. Curiously enough, Hain (No. 15249), who did not know any copy, and simply repeats what Panzer says about the erroneous year, does not quote his remark about Cleyn's own date. As will be seen by the table, this edition was unknown to the older authorities.

For the so-called edition of 1401 see under 1501.

The first edition seems to be the following. There is a copy in the Hunterian Library, University of Glasgow.

- f. [1] Title. Practica valesci de tharanta | que alias philonium dicitur Verso blank.
 - f. [2] Tabula, ends f. 3 verso.
 - f. [4] recto blank. Verso Epistola.
- aj Folium I. Incipit Prologus in practica3 | víualem Ua- | lesci de tharāta etc.

 Small folio. 4 ff. a to z, A to Y in eights; or, ff. [4] CCCLX numbered. Double columns. 51 lines. Black letter.

Yviij recto col. 2, colophon:

Preclarifimu op⁹ valesci de tharāta reuerēdisti | mi mgrī necnō artis medicine doctoris famosif | simi. Finit feliciter Impssum lugd. p Johānem | trechsel

alemant. Anno nre falut Millesimo | quadringetesimononagesimo Die vero decimo | nono mensis maij. Amen.

followed by Trechsel's device: I.T in a circle through which rises a line crossed near the top by two lines, one longer than the other; colour white on a red ground.

Trechsel's edition is described by Panzer, I. 541, 88, on the authority of Maittaire, p. 519, and Catalogus Bibliotheca Canobii Glunicensis in Austria. Kestner, Bibl. Medic., p. 601.

The second edition was printed at Lyons, "per magistrum mathiam huss alemanum," on the 20th of November, 1490. It is in gothic character, folio, 272 leaves. It is mentioned by Maittaire, p. 519, note 4; by Denis, Suppl., p. 297; Braun, II., p. 203; Panzer, I., 541, 85; and Hain, No. +15251, who gives 267 leaves. I have not seen it.

Another, also dated 1490, is said to have appeared at Venice. I have not seen or heard of an actual copy, but it is noticed by Astruc, Panckoucke, Dezeimeris, and Haeser, who all, probably, simply copied Astruc's statement. Its existence seems doubtful.

The edition of 1496 appeared at Lyons, 14th Oct., in 4to, and was likewise printed by Johann Trechsel. It is mentioned by Denis, Suppl., p. 418. Panzer (I. 549, 155) asks whether it may not be part of a collection entitled: "Amicus medicorum magistri Joannis Ganiueti." This has the same date, place, and printer as Valescus' work, and it is possible that they form part of one whole. Apparently Hain took this view, as he gives a reference to Ganivetus, No. *7467.

Hitherto I have not come across a copy of the edition printed in 1500 by N. Wolff at Lyons, in 4to. It is described in full by Hain (No. *15252), who says it contains 4 ff. not numbered and 364 numbered. Billings' account is as follows:

Practica, que alias Philonium dicitur, una cum Joannis de Tornamira introductorio. 3 p. l., ecclviiii ff. 4to. [Lugduni.] [Ad finem:] Impressum per N. Wolff, 1500.

It seems to be different from the following, which Panzer gives (IV. 73, 677):

Valesci de Taranta Praxis Medica. 1500. fol. Maitt. p. 738.

Mangetus quotes a Lyons edition of 1500, but without specifying the printer. Haller alludes incidentally to a Basel edition of 1500.

Next comes an edition of which I happen to have a copy:

Practica Ualesci de Tharanta que als Philoniu dicitur vna cu olbe Antidotis tam simplicibe a copositis vnicuiq3 egritudini a capite vsq3 ad pedes: appropria tis Johanis Mesue: per alphabetum: a magistro Jacobo de partibus doctore Parisiesi celeberrimo: elegăter collectis et cu nonnullis flomie canonibus cū anatho mia offium adiūctis planiffime cū nuero iploru scz. ccxlviij. absq3 ossibus sisaminis et osse laude sub lingua: valde medi co perutilissimis ex pluribus doctori bus emēdatit fime excerptis

Small folio. 4 leaves AA, a to z, A to Y, in eights, or ff. 12 not numbered, ccclx numbered. Black letter, with numerous contractions; double columns, 51 lines; head lines and signatures. Title entirely in red.

Collation: 1st leaf, Title; verso blank.

2nd leaf, recto: ([Incipit tabula huis libri . . . ends on the 4th leaf recto.
4th leaf verso. Dedication or address to the Chancellor of Montpellier
University by Hieronymus Ferrera.

AAI recto. Sumula Jacobi de partibus, ends AA7 verso. 8 is blank.

- ai rato. Text of the Philonium begins, and ends Y viij rato. ff. I-CCCLX. Verso is blank. At the end of the text is the colophon:
- ([Preclarissimu op Ualesci de Tharāta reue | rendissimi magīt necno artis medicine docto- | ris famosissimi. Finit feliciter. Impssum lugd. | p Johem Cleyn alemanu. Anno nostre salutis | Millesimo quadringētesimop'mo, decimoocta | no. kal. Decembris.

This is followed by Cleyn's device, white on a red ground, with the letters I C, which resembles Trechsel's.

Panzer (VII., 277, 10) quotes this edition, and considers the date a simple misprint, for after *quadringentesimo* he puts the word sic, and the book is placed under 1501. He quotes (VII., p. 163), Catal. Bibl. Thottianæ and Bibl. Schw. iun.

The copy in the British Museum, which I have examined since the preceding was written, is the same as my own. Cleyn's device, however, has been cut out, and there is added a folded leaf, equivalent to eight

pages of the book, which contains on the half of one side the picture of a skeleton, with the bones marked with letters, and the corresponding names printed on the rest of the sheet round the picture. On the other side, occupying the whole sheet, is a picture of the veins, with a description of their functions in phlebotomy. This sheet, which was printed by Cleyn, as the type is the same as that used for the *Philonium*, is intended, I presume, to give the insight into the bones and veins referred to in the title. In this copy the tract of Mesue is placed at the end, instead of at the beginning as in mine. The date 1401 is considered a misprint for 1501, and the latter date is assigned to the book in the Museum catalogue.

In 1502 the *Philonium* was reprinted. It is a folio, double columns, gothic character, and contains A to Z, AA, BB, all in fours, and CC in 5 (as the register gives it) or ff. CCIX. There is no title page. At the end is this colophon:

(Preditissimu atq3 pelarissimu opus Valesci de tharan- | ta reueredissimi magistri necno artis medicine doctoris sa | ma sup ethera noti. vna cu introductorio celeberrimi viri | atq3 medicine doctoris Johānis de tornamira seliciter sinit. | Impēsssq no mediocrito & cura sollertissima petri liechte | steyn coloniensis aggripine colonie: necno emendatione | diligentissima est Impressu anno. salutis. M.ccccc.ij. duo- | decima Kal Martij Venetijs. Sume & Idiuidue trinitati. | sit laus: honor & gloria.

The above is from the copy in the British Museum (7306. k. 13 (1).). This edition is given by Panzer (VIII. 356, 139), and he refers to Gruner's *Aphrodisiacus*, p. 28, not. l., and to Thott, l.c. VII., p. 54.

Under Lugduni, MDXVI. Panzer (VII. 314, 312) quotes the edition printed by Jacobus Myt, Anno... MCCCCCXVI die vero XI mensis Augusti. 4. He refers to Gruner's Aphrodisiacus, p. 28, not. l. Haeser calls it a very elegantly printed edition—eine sehr zierlich gedruckte Handausgabe. I regret I have seen no copy.

Hallervordius * and Mercklin speak of an edition printed in folio at Venice in 1521: Apud hæredes Octaviani Scoti, but they give no particulars. Mangetus and Panckoucke copy from Mercklin. Haeser's edition in

^{*} Bibliotheca Curiosa, Regiomonti, 1676, p. 347.

folio of the same date was printed apparently at Lyons, and Panckoucke also gives an edition, Lyons, 1521, in folio. Whether there be two such editions, or whether one of these authorities has made a mistake as to place or date I am unable to say, for I have seen no copy of 1521. I do not even know if Haeser simply quoted Panckoucke without having had access to a copy. This question, therefore, cannot be satisfactorily answered for want of the necessary data. Fabricius (Bibl. lat., p. 873) calls this edition the first erroneously.* Billings describes it as follows:

Philonium. Aureum ac perutile opus practice medicine operam dantibus, quod Philonium apellatur, consumatissimi medici domini Valesci de Tharanta. Novo ac diligenti examine correctum, novisque et pulchris marginalibus annotationibus exornatum. Introductorius etaim libellus ad practicam medicine partem domini Ioannis de Tornamira. 3 p. 1., 223 ff. fol. [Ad finem:] Venetiis impressum cura et sumptibus heredum ... Octaviani Scoti civis Modostiensis ac sociorum. 1521.

The edition of 1526 is one of those most frequently referred to. There is a copy in the British Museum (542. a. 2.) of which I can give an account:

- Philonium. | Aureŭ ac perutile op | practice medicine ope- | ram dantibus : qd Phi | loniŭ appellatur : Cō- | fumatiffimi medici do | mini Valesci de Tha- | ranta. Nouo ac diligō | ti examine correctū. |
- Introductorius etiā | libellus ad practicā me | dicine partem domini | Joānis de tornamira. | [Device.]
- 8vo. aa 4; a to z, A to Z, AA to GG in eights; or ff. [4] ccccxxiiij. Title in red, except the ornamental border and the device of a cross composed of six small crosses. Gothic letter, double columns, 52 lines. The word "Philonium' is outside the border.
- aai Title. On the reverse is a short address to the reader.
- aaij: Incipit tabula hui? libri, ends aaiiij recto. Verso is blank.
- aj Text begins fo. i. but not numbered, and ends GGviiij recto, fo. coccxxiiij. The colophon is as follows:—
- (Utilissimum atq clarissimum opus Vale | sci de tharāta per q3 reuerēdi magistr nec- | no artis medicine doctoris sama sup ethe | ra noti. vna cū introductorio celeberrimi vi | ri atq3 medicine doctoris Joānis de torna | mira sinit seliciter. Impressum lugduni per | sedulū virū Jacobum myt. Anno virginis | partu. M.cccccxxvj. die #0. vj. mēsis Martij. |

The last page is blank.

^{*}So says Kestner (*Medicinisches Gelehrten-Lexicon*, 1740, p. 834), but I have had no access to the edition referred to. The article in that which I have seen, Florentize, 1858, III., p. 570, is inaccurate, though this particular error has been expunged from it.

Myt's edition of 1535 is a reprint of this one.

Panzer, VII., p. 339, 524. He refers to Oertelii Catalogus Bibl. Scholæ quæ Neustadii ad Aissum floret, Norumb. 1787, 4to. P. 104.

Haller mentions an edition of 1531, and he is followed by Dezeimeris. No copy of that date has elsewhere come under my observation, and I am doubtful about it.

The edition of 1532 in fol., Venetiis, apud Hæredes Octaviani Scoti is mentioned by Mercklin, Mangetus, Eloy, and Panckoucke. Haeser quotes an edition of the same year, but judging from the arrangement of his list it would seem to have been printed at Lyons.

The first acquaintance with Valescus' book which I made was through a copy of the 1535 edition. The following is an account of it:

- Philonium. | Excellētissimi ac | optimisquibusq3 Practicae Medicinae | studiosis viris longe vtilissimum et neces- | fariū opus : quod Philoniū inscribitur : | prestantissimi necnon consummatissimi | Medici Domini Ualesci de Tharanta : multos hactenus suerit nuper vigilan- | tius emendatum : cui accessit. D. Joan. de | Tornamira diligentissimi Galeni intro- | ductorius libellus varias morborū curas complectens. | 15 [Device] 35. |
- Uenudătur Lugduni apud Scipio- | nem de Gabiano in vico Mercuriali fub |
 infigni Fontis. |
- 8vo. Signatures a to z, A to Z, AA to KK, all in eights; or ff. [i-iv] v to ccccxlvij, and one leaf not numbered. Black letter, double columns. The title page is printed in red and black, and is enclosed in four separate different pieces. The device is a fountain.
- ai contains the title, on the reverse of which is a short address to the reader.
- aij to aiiij recto: Tabula, or table of contents; verso is blank.
- The text begins on a v numbered folio v, and goes down to KKvij verso, numbered coccxlvij. At the end of the text is the register, followed by the colophon, which shows the estimation in which the book was held:
 - (I Utiliffimum atq3 clariffimum opus Valesci de tharanta perq reuerendi magistri necnon artis medicine doctoris sa ma super ethera noti. vna cu introducto rio celeberrimi viri atq3 medicine doctoris Joannis de tornamira sinit seliciter. Impressum lugduni per honestu virum Jacobum myt Expensis vero honestorum virorum Scipionis de Gabiano et fratru astantium Anno virginis partu.
 M.CCCCCXXXV. die #0. XX. mensis Aprilis.

The last leaf, not numbered, has the device of a fountain with two cupids and the word LAVAMINI, and round the border the words:

Ego Sitienti Dabo De | Fonte Aque | Vive Gratis | Apoc. 21. The verso is blank.

The previous edition of 1526 was also printed by Myt. The present one is given by Panzer, VII. 363, 754, who refers to Hirsch, *Millenarius*, II., p. 57; and by Panckoucke, who calls it a 4°. Billings' collation tallies with mine. There is no copy in the Museum.

In the note to the reader, apparently by the publisher, or whoever it was who saw the book through the press, it is stated that this edition had been printed in a compact form, so that physicians, who have to go from place to place, may have a survey of human diseases which they can carry about with them as a "veni mecum," as such a book is called. This therefore was a pocket cyclopaedia of the healing art, as practised at the beginning of the sixteenth century, and may be compared with the analogous works of De Dondis and of Varignana, the former in large folio, the latter in small octavo. All these works are of especial value as illustrative of medicine from 1300 to 1385. There is wanted a good critical account of the natural and medical science of the 14th century, of which less is known than of the 13th, in so far as the men of the later century were by no means so distinguished as their immediate predecessors.

Of the edition of 1560 Haeser, taking his information possibly from Panckoucke, says nothing but that it is in 8vo, and apparently came out at Lyons. I suspect that Haeser means the work of Guido Desiderius (Gui Didier) who was physician of the monastery of Saint Antoine de Vienne. It has the following title:

Epitome operis perquam utilis de morbis curandis Valesci de Taranta. Lyons, 1560, in 8vo.

Haller commends this epitome.

The Venice edition of 1589 was also in 8vo, and appears to be authentic. It, too, is mentioned by Haeser. I have not seen copies of either edition.

The edition of 1599 (B. M. 547, i. 1) is based on that of Guido Desiderius, amended and enlarged by Joannes Hartmannus Beyerus, and was

printed at Franckfurt, "ex Officina Chalcographica Romani Beati, sumptibus Nicolai Bassei Bibliopolæ, M.D.XCIX." It is a 4to in eights, and contains): (in six, A to Z, Aa to Vv in eights, Xx in six; or pp.: contents [10, 2 blank], text 677, index [22, 1 blank]. It is a very commonplace book on thin soft paper, which has foxed.

Against the editions of 1560 and 1599 the reader is warned by Astruc.*

Another critic says of the 1599 edition that it is curtailed and altered by Beyer, who has not hesitated to add to it a number of Paracelsian ideas.†

Long after, the book was reissued with a preface by Georg Wolfgang Wedel, at Franckfurt and Leipzig, "Sumtibus Joannis Adami Kästneri Bibliop. Jenæ, Typis Joannis Nisl, Anno MDCLXXX." Wedel's preface is dated Jena, Cal. Mart. M.DC.LXXX. It also is a 4to, a, b, A to Z, Aa to Zz, Aaaa to Zzz, Aaaaa to Vvvvv, or pp.: title, preface, and contents [16], text 871, index [27]. The title page is in red and black; but the book is an ugly seventeenth century quarto. [B. M. 546. g. 19.]

For the edition of 1714 in 4to, I have only Panckoucke's and Haeser's authority. Apparently it was a reissue of the previous edition of Wedel, 1680.

It is obvious that the book enjoyed a very great reputation. The authorities already referred to so often, commend Valescus for his record of original observations, and Conring,‡ a writer who is not lavish of his commendation, makes the following observation: "Valescus item Tarantanus, Regis Franciæ Protomedicus, auctor Philonii, docti ad praxin valde utilis scripti," and afterwards (p. 236) refers to it as "doctum librum."

A commendatory notice of him is given by Freind, who says that

^{*} Mémoires pour servir à l'Histoire de la Faculté de Médeine de Montpellier, Paris, 1767, 4to, pp. 208-211, where in his notice of Valescus, he gives a brief summary of the Philonium, mentions the editions of 1490 and 1521, and, while condemning the above, commends the compilation of Rembert Dodoens, or Dodonseus. I do not see exactly for what reason, because Dodoens makes only three or four brief extracts, which can in no way be compared with a deliberate edition of the book, however badly executed. One would almost suppose that Dodoens' book had not been examined.

[†] Dictionnaire Historique de la Médecine Ancienne et Moderne, par MM. Dezeimeris, Ollivier (d'Angers) et Raige-Delorme. Paris, 1828-1839. 4 tomes, 8vo. I., p. 260.

¹ In Universam Artem Medicam Introductio, ed Schelhammer, Spirae, 1688, 4to, p. 103.

"Valescus de Taranta was almost the only one who, about 1400, wrote from experience, and not from books only. . . . He has left us a book call'd *Philonium*, wherein are several good observations relating to the practice of both *Physick* and *Surgery*. . . And indeed this author interposes his own judgment very often, in some difficult points of Practice: a rare instance in these times, when none had yet scarce begun to think for themselves." The author of the article in Hirsch's *Lexikon* states that he was one of the lights of the older school at Montpellier, and Portal † has a favourable opinion of Valescus as a practitioner and man of original powers.

The edition of 1680 has been called the best. As none of them are ever likely to serve the modern physician as a vade mecum, I should suppose that the early editions will still prove the most attractive from the collector's point of view, irrespective of Haller's insinuation: Antiqua etiam est nitida, etsi Gothicis literis excufsa, editio. The paper, printing, and ensemble of a working quarto of the middle of the seventeenth century form one of the severest trials to which the taste of a bibliophile can be subjected.

13. The various editions of Gregory Reisch's *Margarita Philosophica* having been already enumerated by me (Part V., p. 433), it will be sufficient to tabulate those acquired since my first notice of it. They are—

Strassburg, 1504. Strassburg, 1512. Strassburg, 1508. Strassburg, 1515. Basel, 1535 and 1583.

Of the 1515 edition there are copies differing in details from one another, so that of that edition, at all events, there were at least two issues. Of the different editions, the first, 1503, is perhaps the most abundant, though the book in one issue or another is not uncommon. But to get a copy in fine condition, clean, unwormed, perfect, especially with the relative map or maps and the music plates, is very difficult indeed. The map has been almost always removed and other illustrations as well. As the bibliography of this book involves much detail,

^{*} The History of Physick, London, 1726, Part II., pp. 295-7.

[†] Histoire de l'Anatomie, 1770, I., p. 237.

I intend to consider it more minutely in a separate paper, and at the same time I may possibly give some notion of its contents, as a summary of learning at the close of the fifteenth century.

14. A treatise contemporary with the Margarita Philosophica is entitled Cueur de Philosophie. Up to the present time this book has not appeared in my "Notes," and it has therefore the attraction of novelty. As to its theme, it deals pretty much with the secrets of Nature generally, not of the Arts, and it covers part of the ground cultivated by Reisch. Like him too, the author selects the catechetical form, and carries on the teaching by question and answer between a disciple and his master.

As the book, like the Margarita, deserves more than a mere passing glance, I shall confine myself, for the present, to the bare mention of the editions which I have seen. Those which I have acquired are dated 1521 and 1524. They are both in small 4to, printed in black letter, for François Regnault, Paris. They have a few woodcuts. These are neither in the British Museum, nor are they noticed by Brunet. In the Museum are editions dated 1514 and 1520, and in addition to them Brunet mentions one by Antoine Verard about 1504, and others of 1521, 1529, 1534, and 1538. A copy of Verard's edition I have seen in the Municipal Library at Lille; and quite recently, in the Mazarine Library at Paris, I found an edition of 1530. As this one is not referred to by any bibliographer, I may give here the note which I made upon it:

ensuit le Cueur de Philosophie: contenant plusi-

eurs demandes et questions proposees par le saige Placides au Philosophe Tymeo: Et les responces côtenuz en icelluy. Auec le traictie de Lespere du môde Et le Côpost et Kalendrier touchant le cours du soleil et de la Lune des sestes sixes et le bissexte. Le tout sigure: Translate nouvellement de Latin en Francoys. XXX.

[Device.]

+ On les vend a Paris en la grad Rue fainct Jacques en Lenseigne de la Rose blanche couronee par Philippes le Noir Libraire demourat au dit lieu. Small 4to. a in six, b to l in fours, m in eight; n to z, A, in fours; B in eight, C to F in fours, G in six; or ff. [6] CXXVI.

Black letter. Numerous woodcuts.

ai Title, in black and red. The device is Aristotle under a tree with an open book on his knee, holding a conversation with a draped female labelled Philosophie. This device has on the two sides a "billet" border alternately red and black, like those in the Secrets de l'hystoire naturel.

aii recto: La prologue, ends verso. aii verso: La table, ends avi recto.

avi verw: Woodcut of a king seated, a queen (?), a kneeling female, and a man dressed as an ecclesiastic.

bi Text begins and goes to the end, Gvi verso. Then the colophon:

Cy finift Le Cueur de Philosophie translate de Latin en
Francoys a la requeste de Philippes le Bel Roy de
France: Nouuellement Imprime a Paris pour
Philippe le Noir, Lung des deux Relieux iurez: Et Maistre Imprimeur a Paris, Demourant en la grand Rue Sainet Jacques: A lenseigne de la Rose blanche

Sic for XXVIII?

couronnee. Et a efte acheue dymprimer le XXXIII. iour de Mars M.ccccc.xxx.

15. Among the Italians who have compiled books of Secrets, I spoke in the first supplement of Guglielmo Varignana. He was one of a family of this name, several of whom were Professors at Bologna.* Bartolomeo, his father, died in 1318-19; he himself died in 1330, and he left two sons, Pietro and Matteo.

Guglielmo, who concerns us at present, wrote a handbook of medical practice, which was not printed till the sixteenth century, but thereafter met with such success as not only to eclipse the fame, but almost to obliterate the

^{*}The following are mentioned among the doctors in various faculties at Bologna by Giovanni Nicolo Pasquali Alidosi (*I Dottori Bologness di Teologia, Filosofia, Medicina, e d'Arte Liberali dall' anno* 1000, per tutto Marso del 1623, Bologna, 1623, 4to): p. 24, Bartolomeo; p. 47, Domenico; p. 77, Giovanni; p. 79, Guglielmo; p. 140, Matteo; p. 155, Pietro.

An account of Bartolomeo da Varignana and of the castle from which the family name arose is given by Mauro Sarti (De claris Archigymnasii Bononiensis Professoribus a Sæculo XI. usque ad Sæculum XIV. Bononiæ, 1769-1772, folio; Tom. I., Part I., p. 480). It is clearly shown that they were of Bolognese, and not of Jewish origin, as some writers have stated.

memory of his father, Bartolomeo, though by contemporaries the latter had been more highly esteemed as a physician. Bartolomeo wrote several treatises, but as they were not printed they had not the fortune to be known to subsequent times in the same way as the volume of medical receipts and secrets by his son.*

The earliest edition I have found mentioned is dated 1519. I have not seen a copy of it, but the title is given by Billings as follows:

Secreta sublimia ad varios curandos morbos verissimis auctoritatibus illustrata additionibus nonnullis: flosculis item in margine decorata: diligentissime castigata: nusquam impressa feliciter incipiunt. 5 p. l., 129 ff. 1 l. 12° [Impressum Papia, per Magistrum Bernadinum de Geraldis, 1519].

The year after, an edition was printed at Venice, of which I have been fortunate enough to secure a copy.

Small 8vo. Signatures A-R in eights; or, ff. [8] 127, last leaf, blank (?) wanting. Black letter.

Colophon: (I Impressum Venetijs per Alexandrum de Bin | donis. Regnante Principe Leonardo Lau- | redano. Anno Domini. M.D.xx. Die | xx. Mensis Nouembris.

This is an attractive little volume of undoubted rarity. It is in Mercklin's † list, from which it is repeated by Haller. ‡ There is no copy in the British Museum, but it is also described by Billings. §

The next edition, 1522, likewise occurs in Mercklin's and Haller's enumeration, and the copy which Panzer || knew long ago was in the library of the Royal Society. There is none in the British Museum. The following account is given by Panzer, and for the collation I am indebted to Billings:

Guilielmi Varignane fecreta fublimia ad varios curandos morbos veriffimis autoritatibus illustrata additionibus nonnullis flosculis. Item in margine decorata: diligentissime castigata: nusquam impressa feliciter incipiunt. Infigne Vincentii de Portonariis. In fine: Lugduni Impressum per Jo. de Cambrey Anno a Virginis partu. 1522. Deo gratias. 4. [3 p. l., lvi. ff. sm. 4°.]

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^{*} Sarti, Ibid. p. 483. † Lindenius Renovatus, Norimb., 1686, p. 385.

[‡] Bibliotheca Medicina Practica, Bernæ, 1776, I., p. 443.

[§] Index-Catalogue, 1894, XV., p. 593.

[#] Annales Typographici, 1801, IX., p. 519, 465 b.

It is so still. See Catalogue, 1883, p. 1083.

The edition which appeared at Lyons in 1526 seems to have been well known, as it is enumerated by Mercklin, Haller, Eloy, Panckoucke, Haeser, and is included in his list by Billings. His collation is: lxxxvii. ff., 3 l. Sm. 4° [Lugduni, impressum per J. de Cambray, 1526]. There is a copy of this edition in the library of the Royal Medical and Chirurgical Society, London.* Mangetus, who took his list from Mercklin, misprints the date 1626, as is pointed out below.

Several other editions are enumerated, but while some are authentic, others appear to me to be simply misdated. The following are those which I have observed:

1531 (?), 21 p. l., 477 pp., 12° Basileze, per H. Petrum.

Billings gives this, but it seems to be identical with the undated edition in the British Museum, referred to by me in the previous supplement.

An edition of 1536 is mentioned in the *Biographie Universelle*, T. 42, p. 637. I have little doubt that this is a misprint for 1526.

In the first supplement I alluded to an edition of 1539, of which there is a copy in the Museum. It is mentioned by Mercklin, Haller, Eloy, and Haeser. Billings' collation is: lxxvii. ff., 3 l., 12°, Lugduni, J. Flaiollet; which agrees with the copy I have seen. There is a copy of the same date and place, but designated a 4°, in the library of the Faculty of Physicians and Surgeons of Glasgow.†

Haeser alone is the authority for an edition of 1540, Venice 8°, but from its being placed between those of 1519 and 1526 in his chronology, I have little doubt it is a misprint for 1520.

The edition of 1545, Basel in 4°, mentioned by Mangetus and by Panckoucke, may possibly be the undated edition I described before. I have not noticed any other reference to such an edition.

The edition of 1597, Basel 8°, edited by Caspar Bauhinus, is that most requently spoken of. I have already mentioned the copy in the British Museum. Billings gives the following collation: 7 p. l., 375 pp., 16° Basileæ per S. Henricpetri. In the Museum copy there are eight pre-

^{*} Catalogue, London, 1879, vol. ii., p. 486. The title there given is: Opus de curandis egritudinibus. goth. l. 4°. Lugd. 1526.

⁺ Catalogue, 1885, p. 645.

liminary leaves. There are copies in the University library, Aberdeen,* and in the library of the Royal Medical and Chirurgical Society of London.†

Mangetus ‡ quotes an edition of 1626: "Lugd. apud Joh. de Cambray," in 4°. This again, from its coming between the editions of 1520 and 1539, and from its printer, is obviously the 1526 edition with the date misprinted. Besides, he admittedly quotes from Mercklin, who has no edition of 1625, but only of 1526.

Varignana has been commended by several authorities. Conring says of him, when discussing the notable men of the epoch: "Item Guilielmus Varignana, Judæus quantum apparet, vir magnæ eruditionis," § and again, "Ad quos tamen adhuc referendus est, qui quasi empiricam curandi morbos rationem tradidit Guilielmus Varignana; cujus liber titulo Secretorum verissimis auctoritatibus illustratus ad multorum morborum curationem valde juvare nos potest." In a note to this passage (p. 252), Conring compares Fioravanti with Varignana, but gives the former a higher place as being a "rationalising" empiric, who is justified in styling his book Compendium Secretorum rationalium. Mangetus ¶ calls him "fublimis et excellens medicus," and copies Conring as to his nationality. He gives a brief abstract of the book, and quotes the editions from Mercklin.

Portal ** devotes a paragraph to Varignana. He states that according to Conring he was a Jew, that he practised in Genoa, was highly distinguished as an author, and published two works, Opera Medica and Secreta sublimia.

Pretty nearly the same narrative is repeated by Eloy.†† He mentions the father, and says of Guglielmo that he taught for several years at Bologna, his native place, whence he was called to Genoa, where he wrote his two books, of which he enumerates the following editions respectively: Secreta

^{*} Catalogue, Aberdeen, 1874, vol. III., p. 294.

⁺ Catalogue, London, 1879, vol. II., p. 486.

[‡] Bibliotheca Scriptorum Medicorum, Genevæ, 1731, II. ii., p. 458.

[§] In Universam Artem Medicam Introductio, ed. Schellhammer, Spirze, 1688, p. 102. || Ibid., p. 237.

[¶] Bibliotheca Scriptorum Medicorum, Genevæ, 1731, II. ii., p. 458.

^{**} Histoire de l'Anatomie, Paris, 1770, I., p. 204.

⁺ Dictionnaire Historique, Mons, 1778, IV., p. 479.

Medicinæ, Papiæ, 1519, 8°; Venet. 1520, 8°; Lugd. 1526, 4°; 1539, 8°; Basil. 1597, 8°. Opera Medica de curandis morbis, Basil. 1545, 4°; 1595, 8°; Lugd. 1560, 8°.

These older accounts were examined and criticised by Tiraboschi.* Relying upon the authority of Alidosi and Sarti, quoted above, he shows that his father, Bartolomeo, was a native of Bologna, and of a noble family, and is at a loss to know how he could be thought to be of Jewish extraction. He points out, moreover, that Conring does not say that he was of Jewish origin, as Portal makes him do, but only that he appears to have been Jewish. He does not know any authority for his practising in Genoa, and he believes that the two titles, *De Curandis morbis* and *Secreta sublimia*, refer really to one book, and not to two.

Henschel, a more recent writer than these, and a professed investigator of the history and biography of medicine, curiously enough refers to Conring's statement only as to Hebrew descent. He does not seem to have known about Sarti's inquiry. It looks as if he had better evidence for saying, on the strength of Varignana's own dedication, that his patron was named Meladinus, and was a nobleman of Croatia and Bosnia, and that the author lived latterly in Illyria.†

In Varignana's case, likewise, there seems to be a good deal of obscurity surrounding the events of his life. It may be remarked that the article by Weiss ‡ is based on Tiraboschi's account.

16. Whether Raoul du Mont Vert is the real or fictitious name of the author of the little volume, Les fleurs et secretz de médecine, I have not been able to ascertain. The book itself has the merit of originality; it is independent of similar collections. Like many other French books printed early in the sixteenth century, the editions are all rare and little known. I described formerly one of 1547 and a late reprint of 1602, besides enumerating the editions in the British Museum and those noted by Brunet.§ I have recently got other two not in the Museum and omitted

^{*} Storia della Letteratura Italiana, Firenze, 1807, t. V., parte I., p. 257.

⁺ Janus, 1853, II., p. 390. See full reference in note ||, p. 194.

[‡] Biographie Universelle, Paris, 42, p. 637.

[&]amp; Part V., p. 441.

by Brunet. Both are undated, and both are in small 8vo, printed in black letter. One of them has no place or printer's name, the other issued from the press of Alain Lotrian and Denis Janot at Paris, and may therefore have appeared as early as 1520. This work requires fuller consideration than I can give it here at present, and I hope to subject it to a special examination.

17. A much-esteemed book must have been Vicary's Englishman's Treasure, which was edited and enlarged and supplemented by William Bremer. The earliest edition that I was able to submit formerly to the Society was printed by Thomas Creede at London, 1596, in black letter, Part V., p. 454. There was also a very dilapidated copy, certainly dated 1696, and purporting to be of the seventh edition, Part IV., p. 306. Another copy, however, of the seventh edition was dated 1626, and this agrees better with those now to be described.

The first edition seems to be that imprinted at London by John Windet for John Perin in 1586. It is a small black letter quarto: 5 preliminary leaves, B to L, A, Bb to Dd in fours, Ee in two, or pp. [10] 115 [1 blank]. It contains Vicary's Anatomy, Remedies for Wounds, various medical receipts, Urines, of the Bath of Baeth. In the later editions much matter was added to the original book.

The next copy I have to show is of the sixth edition; it was "Imprinted at London by Thomas Creede, 1613." It is a small 4to, in black letter, pp. [8] 224 [8]. It has the dedication to the Governors of St. Bartholomew's Hospital, a short note "To the Reader," Vicary's address to the Surgeons, and the picture of the human skeleton, Vicary's True Anatomy, Secrets of Chirurgerie, of Medicine and of Vrines, the English Baths, and a collection of medicinal preparations, waters, oyntments, plaisters, etc., by G. E., and the last eight pages contain an index. There is no plate of the bloodvessels in this edition as there is in that of 1641. This is rather a neat little book.

The eighth edition, a copy of which is in the Hunterian Library and in the British Museum (1039. g. 7), was printed at London by Alsop and Fawcet in 1633. It is exactly like those of 1626 and 1641, being in 4to and black letter, pp. [8] 264 [8]. It does not, however, contain the diagram

of the skeleton of the 1626 or of the veins of the 1641 edition. In the 1641 edition there are receipts, pp. 246-272, which are not in that of 1633.

That of 1641, just mentioned, is the ninth edition, and it too was printed by B. Alsop and Tho. Favvcet. The two editions are in exactly the same style, in small quarto and in black letter. There are a few minor changes in the title page, the most important being that, in the seventh edition, the additions about waters and medicines, etc., etc., are ascribed to G. E., Practitioner, whereas, in the ninth edition, they are ascribed to W. B., who, according to the Museum catalogue, is William Boraston. There are a good many alterations in the arrangement of the two editions, and the ninth is undoubtedly considerably enlarged. It contains pp. [12, including the frontispiece], 292, [15, 1 blank]. The colophon runs thus, on a leaf marked Rr.:

London, | Printed by B. Alsop and Tho: Favvcet, | dwelling in *Grubstreet*, neere to the lower | Pumpe, 1641. |

This copy is in about as good condition as a book of its date and character could be—clean, crisp, with the frontispiece of the blood-vessels, perfect in every way, and in old sheep binding with clasps. Another copy of the same edition I have seen from Mr. Hailstone's library in equally fine state.

The first tract, Vicary's Anatomy, is the oldest treatise on the subject in English. It was originally printed in 1548, but apparently no copy of it has survived. It was reprinted in 1577, and the so-called unique copy of this edition has served for a reprint by the Early English Text Society in 1888. It is No. LIII. of the Extra Series. Vicary belonged to St. Bartholomew's Hospital, and he compiled his tract for the special instruction and guidance of surgeons. Thereafter it became a sort of St. Bartholomew text-book, and all the editions enumerated down to this one were dedicated to the Governors of the Hospital.

It is a collection of some importance, for it represents several sides of the practical and medical knowledge of the time, and it was considered authoritative, seeing that it continued in use for over a century. The tract on the plague, in the ninth edition, reveals the terrors under which people lay, before they had sufficient knowledge to discriminate between natural phenomena and their own superstitions. The seven prognostics of the plague are instructive from this point of view, and what is said may be compared with another little treatise on the same lugubrious theme: AOIMOTOMIA, or the Pest anatomized, by George Thomson, London, 1666, in 16^o.*

ERRATA IN THE FIRST SUPPLEMENT.

Transactions (N.S.) II.

Page 372, line 2, Reprint page 9, delete as follows.

Page 403, line 22, Reprint page 40, for seems read seem.

Page 403, line 24, Reprint page 40, for 1559 read 1599.

^{*[}January, 1897. These works might be considered of special interest just now, when precautions are taking to prevent an incursion of the plague from India to Europe.]

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ACCOUNT OF A CUPY

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SPECULUM MAJUST

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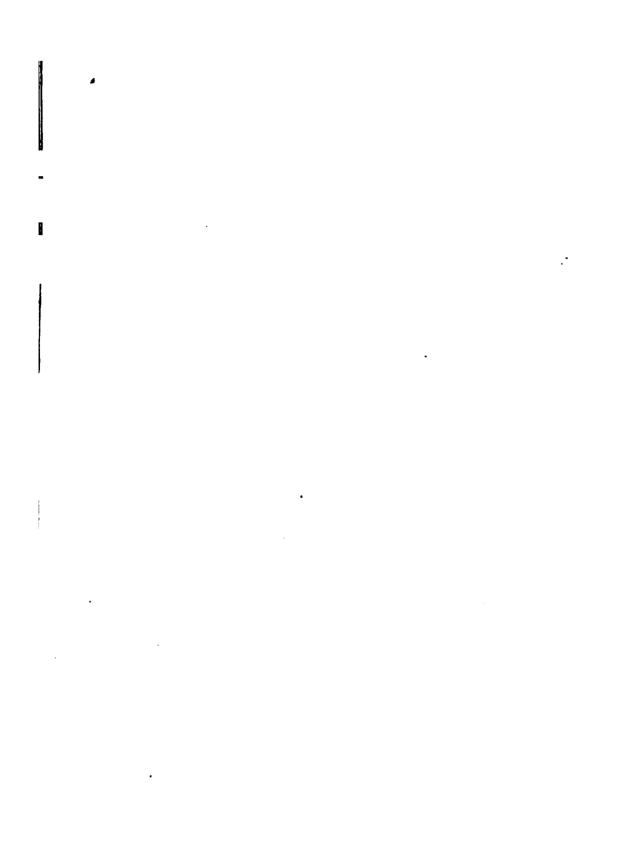
AND RESIDENCE OF ADDRESS OF THE OWNER, OF TAXABLE PARTY.

CORN. E PROGUNOS. N. H.

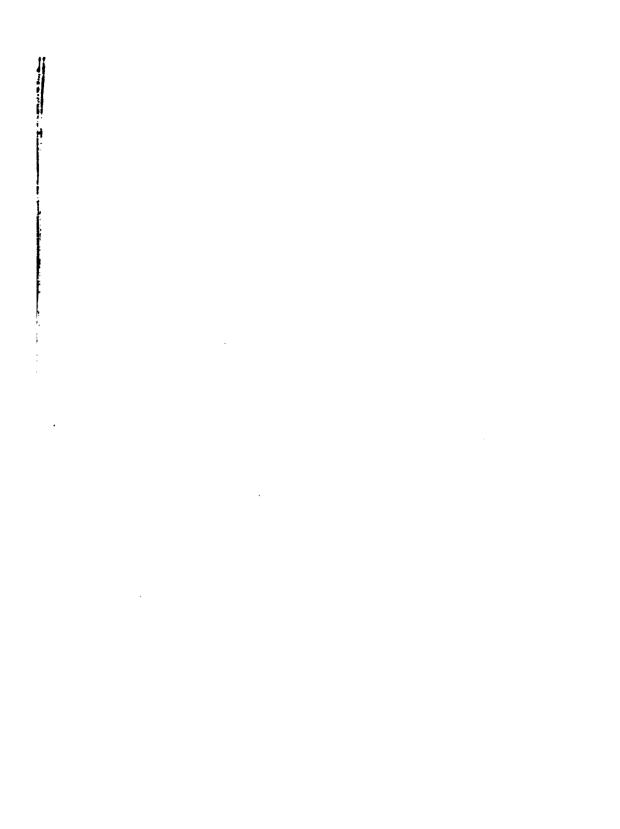
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ACCOUNT OF A COPY

OF THE

FIRST EDITION

OF THE

"SPECULUM MAJUS"

OF

VINCENT DE BEAUVAIS, 1473

SUPPLEMENT TO NOTES ON BOOKS OF SECRETS, PART II

BY

JOHN FERGUSON, M.A.

PROFESSOR OF CHEMISTRY IN THE UNIVERSITY OF GLASGOW

[Read to the Archaeological Society of Glasgow, Thursday, December 18, 1884]

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ACCOUNT OF A COPY OF THE FIRST EDITION OF THE SPECULUM MAJUS OF VINCENT DE BEAUVAIS, 1473.

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On a former occasion, and in connection with books on arts and inventions, I happened to refer to the work of Vincent de Beauvais as perhaps the most voluminous of the Middle Ages, and certainly one of the biggest printed before 1501, and I gave a brief account of copies of two different editions of the *Speculum Naturale*. At that time I was in possession of the *Speculum Historiale* also, and had consulted the descriptions by Van Praet and Brunet, but the question as to the date and printer of the volumes did not specially interest me until I completed the work by acquiring the remaining divisions—the *Speculum Doctrinale* and *Speculum Morale*.

It is unnecessary to say that in English there is absolutely nothing about this remarkable monument of fifteenth century art, except a notice in the catalogue of Kloss's library sold by auction in 1835—fifty years ago—a catalogue that has long since disappeared.

The fullest collation I have seen is by Van Praet. It has been copied and condensed by Brunet, who, however, has not taken the trouble to check Van Praet's statements, and it is followed also by Graesse.⁵ The descriptions by

¹ Transactions of the Archaeological Society of Glasgow, 1883, vol. II. p. 246.

² Catalogue des Livres imprimés sur Vélin, Paris, 1822, T. IV. pp. 290-298.

³ Manuel, Paris, 1864, T. V. col. 1253.

^{*} Catalogue of the Library of Dr. Kloss, London, 1835, Nos. 3943-45.

^{*} Trésor de Livres Rares, Dresden, 1867, VI. Sec. Part. p. 325.

other writers1 are so vague, and are so defective in numerical data, that they are useless for real bibliographic purposes, however interesting they may be from other points of view. But especially as clearing away some of the confusion which has enveloped the subject ought to be mentioned the short tract of Desharreaux-Bernard on the first edition of the Speculum Majus. Indeed, it was owing to the perusal of his tract, and the detection of want of agreement between his account and my own copy, that I was led to examine the latter more attentively, apart altogether from its connection with books of secrets. Desbarreaux-Bernard enjoyed the advantage of being able to compare several copies of the so-called editio princeps, and he had thus the means of classifying their differences and of observing the relationship of the various issues. But his account, like those already quoted, is both defective in numerical data and erroneous. He, too, seems to have accepted Van Praet's numbers as correct, and he has thus helped to perpetuate very misleading blunders, besides introducing some inaccuracies of his own.

The consequence of such non-agreement among the different authorities is to make the description of a previously unknown copy of the first edition an absolute necessity. And here I cannot but regret that Hain did not live to

¹ Maittaire, Annales Typegraphici, Amstel. 1733, I. p. 324. He had seen only the S. Naturale and the S. Historiale with the colophon, and says that the first edition is of the rarest occurrence. De Bure (Bibliographie Instruction, Paris, 1768. Histoire, T. I. p. 247) speaks with uncertainty about it, and simply discusses opinions. Clément (Bibliothèque Curieuse, Göttingen, 1752, T. III. p. 77) has a long and very interesting account of the first edition, pointing out its beauty, value, and great rarity; but unfortunately he gives no collations, so that it is not possible to identify the different parts, though it is obvious that they were not all of one issue. The S. Historiale had Mentellin's colophon. Panzer (Annales Typographici, Norimbergae, 1793, I. p. 18) assigns all four parts to Mentellin, but without giving sufficient collations. In these works references to other authorities will be found.

^aÉtude Bibliographique sur l'Édition du Speculum Quadruplex. . . . Attribuée à Jean Mentel. . . . Paris, 1872, 8vo, pp. 25, and 2 leaves of fac-similes. In spite of various inaccuracies and doubtful criticism, which I shall have to notice in the following, I think the author has proved his main thesis that three distinct editions rank under the editio princeps. I am not so sure about the proportion he assigns to Mentellin.

complete his *Repertorium*, and give us an exact description of the different editions of Vincent's encyclopædia.

There is very little known about the author. He was born, it is supposed, about 1184-1194, and died in 1264. He was thus the senior contemporary of Albertus Magnus, Thomas Aquinas, and Roger Bacon. Bellovacensis, Belvacensis, de Beauvais, indicates a connection of some kind with the town or district of Beauvais, but what that connection was-whether of birth or residence, is not certain. He joined the Dominicans, and about 1228 he was summoned to the Court of Louis IX, acted as reader, and may have superintended the education of the king's sons, but his life seems to have been one of unbroken study. The Speculum Majus is not his only work. He wrote several others, which were quite enough to fill a large folio volume, printed by Amerbach at Basil in 1481. In the course of his labours he seems to have read and made excerpts from every book he could lay hands upon. Probably this mode of study, begun at first from mere love of reading, awakened in his mind the idea of an encyclopædia which should embrace all that was best in literature up to his time. A similar idea seems to have occurred to the king, and from him Vincent got ample facilities by money and books for carrying it into execution. Ultimately, he wrote out his compilation, but it is said that, finding it too long, he condensed and re-wrote itan almost incredible undertaking. When his labour is considered, it is difficult to see how he got through such an enormous amount. He must have been one of those rare men endowed with a powerful memory, a calm temperament, never-failing perseverance, and the spirit of order and method.

It does not fall within my plan, as it would certainly be beyond the limit of a paper like the present, to give even the barest notion of the contents

¹ A most elaborate dissertation on the life and writings of Vincent, with full references to the previous literature, was written by Daunou, and was printed in the *Histoire Littéraire de la France*, Paris, 1835, T. XVIII. pp. 449-519. A separate work was published by Abbé Bourgeat: Études sur Vincent de Beauvais, Paris, 1856. One of the very earliest notices is by Guglielmo da Pastrengo, who flourished in the following century, and composed a work which will be considered in the next communication to the Society: Notes on Books of Secrets, Part III. This writer is not quoted by Daunou.

of the work.¹ It is the result of the perusal of a vast number of books, and much of its value for the present time turns upon the fact that it contains extracts from books which are no longer in existence, or have disappeared into libraries where they are unknown.

It is divided into three parts called Specula—Mirrors, viz.: Speculum Naturale, Speculum Doctrinale, Speculum Historiale. To them is added a fourth: Speculum Morale, which bears Vincent's name, although it is probably not by him. Into that question it is needless to enter here. For bibliographic purposes it must be included, for whether genuine or not, or contemporary in authorship or not, it forms part of the editio princeps.

Two hundred years after it was composed, the book was printed. It is difficult to say exactly how many volumes it fills, for that depends on the way the sections are arranged, but, taking these as they occur, it may be divided as follows:

Speculum Naturale, 2 volumes.

- " Doctrinale, 1 volume.
- , Historiale, 4 volumes.
- , Morale, 3 volumes.

This makes ten volumes in all, but, as I have it, it is bound in six volumes. Mentel³ says it is in ten; Van Praet says it is in eight; De Bure enters into an argument to prove that it was in ten; Graesse says it is in seven, but may be arranged in nine. The number is of no real importance.

The first edition of this great work is usually said to have been printed at Strassburg by Johann Mentellin in 1473-76. The reason why it is assigned to him is that his name is found appended both to the *Speculum Historiale* and to a copy of the *Speculum Morale*, and the dates above-mentioned are also found in these sections respectively. The assumption is then made that the other sections which have no name and date were also printed by Mentellin

¹ Details are to be got in Quétif and Échard's Scriptores Ordinis Pradicatorum, Lutet. Paris. 1719, I. p. 212, and in Daunou's essay already referred to.

² Quétif and Échard examined this point, and decided against the authenticity of the S. Morale.

³ De Vera Typographia Origine Paranesis, Paris. 1650, p. 78.

about the same time. Desbarreaux-Bernard, however, has pointed out that this assumption is not warranted by all the facts of the case, and he gives reasons for thinking that several editions have been confused with one another, and that only one of these can be strictly ascribed to Mentellin. Before the arguments can be considered, however, it is indispensable to have a detailed account of the book before us. Accordingly, the following is a description of the copy in my possession.

PART L-SPECULUM NATURALE.

Volume I. contains Books I.—XVIII. Folio I recto, column a, line I begins:

Incipit speculu naturale Vincentij beluacëss fratris ordinis pdicatorum. Et primo plogus d' causa suscepti opis et eius materia. Primu.

Voniā ml'titudo li brorum: Et tempis breuitas: memorie quoq3 labilitas: no patiuntur cücta q scripta sut piter al mo comphèdi. Mi chi omniu fratru3 mimo plurimo? libros assidue reuol uenti: ac longo tëpore studiose legë

ti: visum est tandē (accedēte etiam maiorū meo?; consilio) & ...

The prologue is followed by the table of contents of the 33 books into which the S. Naturale is divided, and this ends on f. 21 verso, col. a, l. 42:

De innouatione mundi et luminariu celi. cvi.

F. 22 r., col. a, l. 1, the text begins:

· i · De diuersis mūdi acceptionibus. Ex libro qui dicitur imago mundi.

Vndi factura quin q3 modis describit:
Dicit em primo mo

¹ The numerous contractions which occur in the original have been imitated as far as possible, but when for want of corresponding types that was impracticable, their existence is indicated in this copy by italics.

mildus archetipus.

id ē -principalis et
oim exemplaris: fecundū q ante tempora fecularia vniu'fitas creature in mē
te diuina fuiffe legitur. Secūdo modo
dici/ mund' primi-

tus exemplatus: scilicet că ad exemplă archetipi angelus & c.

The volume ends f. 368 v., col. b, l. 13. The concluding lines are:

quo pacto fimul osses eo quo venerant agmine
redeant.

Volume II. contains Books XIX.—XXXIII.

F. 11., col.a, L.1:

-xxxix- Continentia libri deciminoni.

to end of book 33, f. 8 v., col. a, L 25:

De innouatione mundi et luminariu celi. cvi.

F. 91., col.a, L.1:

·j. De opere sexte diei. Et primo de anima libus. Guillerinus de conchis.

Iscibus itaq3 et auibus effectu fuperio2; ex aq creatis: vbi fuit tenuior aqua: ex istorum creatione: et fupi-o2; calore est de siccata: Sed sup ficies terre; que que ex superpo sita aqua erat lu

tofa: ex calore bulliens diuería animalium genera ex fe creauit. &.c.

It ends f. 327 v., col.a, l.27. The concluding lines are:

perstricts funt. sed latiore in fine speculi hystorialis, ppatescunt.

Amen.

It is in large folio. Volume I. contains 368 leaves; volume II., 327 leaves. Each page has 2 columns, of 66 lines each. The character is semi-gothic; there are no signatures, catchwords, numeration, initials, head-lines; no place, printer, or date.

There are copies of this work in the British Museum, and in the Bodleian, both of which tally with the above description. The Museum copy is a poor one; it is water-stained, mildewed, tender, and repaired at the corners. The Bodleian copy is in good condition. Kloss's copy also contained: volume I. ff. 368, volume II. ff. 327. Van Praet, however, says that volume I. contains ff. 318. Brunet repeats this statement, and so does Graesse. Desbarreaux-Bernard (p. 6) says: I. ff. 318, and II. ff. 328. I have no doubt that these authorities are wrong about the number of leaves in the first volume. As for Desbarreaux-Bernard's number 328 for the second volume, it is impossible to check it, as he gives no collations whatever.

PART II.—SPECULUM DOCTRINALE.

F. Ir., col. a, l. 1:

Speculü doctrinale Vincentij beluacenfis frīs ordinis pdicato? incipit Et primo plogus de cau fa fuscepti opis et eius materia. Capitl'm I

> Voniā ml'titudo li brorum Et tempis breuitas · memorie quoq3 labilitas · nō patiun cucta que fcripta funt piter almo comphendi. Mihi olm fratrum minimo plurimo? libros affidue r'uol uenti · ac longo tē pore studiose legē

ti visum est tande (accedete etiam maio? meo? cō silio) quosda slores p modulo ingenij mei electos ex osbus sere quos legere potui. &...

This Prologus contains the introduction and the whole contents of the 18 books. It ends on f. 14 verso, col. b, line 67. F. 15 recto is blank; the verso contains the contents of book 2.

F. 161., col. a, l. 1:

·I. Secundus liber incipit.

Omo cu in honore esset no in tellexit: quia contra veritate semetiom illuminate Itumuit Nam pingui ceruice armatus aduerfus deŭ erecto collo cu
currit: & dum iøam diuinita
te3 rape voluit: īpetu fuo fru
ftratus & elufus: iniquitatis
fue pondere quodā ad femetiøm proruit Ibi q3 pa
riter infirmitatē cecitatem & vanitatē omimoda3
incurrit &*c.

The work ends f. 402 r., col. b, l. 60. The concluding lines are:

Quali q'

dă quippe est fluui (vt ita dixerim) plan & alto in quo et agnus ābulet et elephas natet.

F. 402 v. is blank.

Large folio; 402 leaves; 2 columns, 67 lines each; semi-gothic character. No head-lines, signatures, catchwords, numeration, initials. No place, date, or printer. This edition has the curiously-shaped capitals A and R. Some pages contain 68 lines.

The British Museum possesses a large, fine copy of this volume. It corresponds in every respect with the preceding description, and contains ff.402, but in addition it has two blank leaves—one at the beginning and the other at the end, which seem to have belonged originally to the book.

Van Praet's description tallies with the preceding; but he gives ff. 400, which cannot be correct. He says it is printed en lettres de somme, which is equally inaccurate.

In Kloss's catalogue, the number of leaves is stated as 403. Probably one of the blank leaves has been included. Desbarreaux-Bernard says: "in-fol. goth. de 400 feuillets (404 selon le catalogue du Dr. Closs. Londres, 1835, in-8°)," a statement which contains three inaccuracies.

The Bodleian copy does not correspond in every respect with mine. The following is an account of it:

F. I r., col. a:

Speculū doctrīale Vincentij beluacentis frīs
ordinis pdicato? incipit. Et primo plogus de cau
fa fuscepti opis et eius materia Capitl'm I.
Voniā ml'titudo li
brorum. Et tempis
breuitas - memorie
quoq3 labilitas - nō
patium cūcta que
scripta funt pariter

vno alo ophendi.
Michi olm fratru3
minimo plurimorū
libros affidue r'uol
uenti ac longo tem
pore ftudiofe legen

ti visum est tande (accedete etiam maio? meo? co silio) quosde flores p modulo ingenij mei electos ex osbus sere quos legere potui. &c.

This contains the introduction and contents, and ends f. 14 verso, col. b, line 67. F. 15 recto is blank, 15 verso contains the contents of book 2. Then f. 16 recto, col. a: ·I. Secundus liber incipit, &c., the same as in the preceding copy.

The work ends f. 402 r., col. b, l. 60. The concluding lines are:

Qua

fi quida3 quippe ē fluuius (vt ita dixerim) planus & altus in quo & agnus ambulet et elephas natet.

The verso is blank.

Large folio, ff. 402, 2 columns of 67-68 lines each; semi-gothic character. There are no marks of any kind. It contains the peculiar A and R.

This is not a separate edition, but a variation. Desbarreaux-Bernard, who has not seen it, is inclined to believe that the variation mentioned by certain bibliographers is due to the confusion of a 66 and 67-line copy. It is not so however. This is actually a variant of the 67-line edition.

PART III.—SPECULUM HISTORIALE.

Volume I. contains Books I.—VIII. F. 11., col. a, l. 1:

Ecundū Augustinum xix· libro de ciuitate dei Ordo est pariū dispiūq3 sua cuiq3 loca tribuens disposico. Ex q'bus uer bis colligit q illa q bsi ordinata sunt & disposita facilius i locis suis i uesunt. Et ppte' hoc ut

quenti facilius occurrat q I speculo hystoriali co tinens &c.

This is followed by the "Tabvla Primi Volvminis" down to f. 2 v., col. b, l. 2:

Zorobabel cū focijis ī irl'm revertitus. jiji. l'. zv.

F. 11. 46.1, ... 1, in homen capitale:

INCIPIT - SPECVLVM - HISTORIALE - FRA TRIS · VINCENCII · CAPITVLVM · PRIMVM · DE-CAVSA-SVSCEPTI-OPERIS-ET-EIVS-MATERIA.

> Voniam multitudo librorum & tempis breuitas mečrie quoq3 labilitas no pacietur, cucta que scripta sit piter animo Abendi. Michi oim fratră mimo pluri morti libros affidue ex longo tempe renolučti

ac studiose legenti, uisum est tandem accedete etiš maiorti meorum conlio quodag flores p Brc.

This contains the introduction and the contents of the whole 32 books. The contents are printed in two double columns, and end f. 28 v., col. 20, l. 4:

Explicitit capitl'a tocir ogis specl'i historia Hs.

This is followed immediately by:

CONTINENCIA-SE CVNDI · LIBRL

which ends f. 291., col. at.

The text begins f. 291., col. b, line I:

·I· EPILOGVS · DE · VNITATE · DIVINE · SVB-STANCIE.

> Eus est substancia incorporea simplex & icomutabil'. Imenía & eterna. incoprehensibi lis & ineffabilis, multipharie tři utcūq3 nomīabilis. nam dicitur breuit' q'dq'd est. nichil th de ipso digne dici potest. s eoioo iam in

dignü est. qd dici pt. Nam uerius q'dem cogitas deus qm dicis. &c.

and ends f. 168 v., col. b, l. 49. The concluding lines are:

EXPLICIT · PRIMVM · VOLVMEN · SPECVLI · HI-STORIALIS · IMPRESSVM · PER · IOHANNEM MENTELLIN.

F. 169 is blank.

Volume II. contains Books IX-XVI.

F Ir., col. a, l. I:

INCIPIT • TABVLA • SECVNDI • VOLVMINIS SPECVLI • HISTORIALIS.

E abdon & fennen martiribus, xii. l'. xlix
De adriani impio. xi
l'. lxix. .l'. xc
De adriani morte. xi
De adriano & natalia mar. xiii. l'. lxxxi.
De adriano discipulo pseudo. xv. li. xlv.

De affra & naria mar. xiii. li. cli. &-c.

and ends f. 3r., col. a, l. 60:

De zofima & maria egipciaca. xvi. l'.

F. 3v., col. a, L 1:

CONTINENCIA · NONI · LIBRI ·

which ends f. 4r., col. a, l. 50.

Immediately thereafter the text begins:

· LIBER · NONVS .

CAPITVLVM · PRIMVM · DE · PROMOCIONE. CLAVDY · AD · IMPERIVM · COMMESTOR.

Ayo igitur cum effet rome & rediret a ludis circensibe consilio senato? interfecto. or ta eft in ciuitate dissens milites & populü. Curia dicebatur senatores et uiri consulares. Quia igir

uiderant fenatores seuiciam imperato? & in comoda &.

The volume ends f. 295 v., col. b, l. 41. The concluding lines are:

EXPLICIT · SECVNDA · PARS · SPECVLI · HI
STORIALIS · VINCENCII · IMPRESSA · PER · IO
HANNEM · MENTELLIN.

Volume III. contains Books XVII. -XXIV.

F. Ir., col.a, L. I:

Bseruet lector quod in plogo p'mi uo lumis extat anotatu ut si quod qsierit no statim occurrerit in iniciis capi tulo? no ob hoc desistat a querendo quia pse pe &c.

followed by the "Tabwia Tercii Volvminis" to f. 2v., cel. b, l. 25. Yeno impat · xxi · P. xxiil.

F. 3r., col. a, line 1:

CONTINENCIA · XVII · LIBRI.

Eptimuídecimus liber cōtinet
p'mo quidem origines lineafq3 fuccefiionis quorūdam regno?. &c.

Ends f. 3 v., col. a, l. 5.

The text then begins:

.I. DE . CONTEMPORALITATE . IX
REGNORVM . ET . PRIMO . DE . REGNO . ROMANORVM. ACTOR.

B anno primo graci ani. qui fuit ab incar nacõe dñi coc lxxxiincipit figibertus regno? etepalitate de acribe'. I p'ma linea po nes reguu romano? in fecuda pía? in ter cia franco? in qrta

anglo?: in q'nta wandalorum in fexta longobardo?: &*c.

Ends f. 2011., col. b, line 60. The concluding lines are:

EXPLICIT · TERCIVM · VOLVMEN · SPECVLI ·

HISTORIALIS · VINCENCII · IMPRESSVM · PER ·

IOHANNEM . MENTELLIN.

F. 201 v. is blank.

Volume IV. contains Books XXV-XXXII.

F. II., col. a, l. I:

Ygolād⁹ impugnat xpianos · xxv · l' · ix · Aldeburgenſc eccleſie miracl'm.xxvi · l' · lxvi

Alexii cöstantinopo litani gesta · xxx · l'· xc Almarici heretici gesta · xxx · l' · vii · Alpaydis u'ginis ge-

fta · xxx · l' · xxiii. &.c.

to f. 2v., col. b, l.4. Then l.5:

(sic)

· I · DE · IMPERIO · KAROLI · MAGNI · ET · FORMA · EIVS · AC · ROBORF · SIGIBERTVS.

Arol⁹ igit magn⁹ cū
iš fup frācos regnafī;
ānis·xxxiii·p'm⁹ frāco²; impauit romals
annis·xiii. Cepit aūt
āno domini·deccii.
Mundi uero·quartimillefimo·dec·lxv·di
(sic) uifo a conftantiuopo

li imperio romano - euolutis annis circiter.

F. 213 v., col. b, l. 30, the colophon begins:

cccc.&.lxviii. &.c.

EXPLICIT · SPECVLVM · HISTORIALE · FRATRIS · VINCENCII · ORDINIS · PREDICATORVM · IMPRESSVM · PER · IOHANNEM · MENTELLIN · ANNO · DOMINI · MILLESIMOQVADRINGENTE-SIMOSEPTVAGESIMOTERCIO · QVARTA · DIE · DECEMBRIS.

Large folio; two columns (except the contents, which are printed in four columns, or rather in two double columns); 62 lines each. No head-lines, signatures, catch-words, numeration, initials; no place mentioned, but Mentellin printed at Strassburg.

Vol. I. 168 leaves, one being blank; Vol. II. 205 leaves; Vol. III. 201 leaves; Vol. IV. 213 leaves.

The second volume of my own copy wants one leaf in book XIV. containing chapter LXV.—LXIX. inclusive.

The copy in the British Museum wants the first two leaves in Vol. I. which contains therefore only 166 leaves. Vol. III. also wants the first two leaves, and ends on f. 199. Of Douce's copy in the Bodleian Library, the first volume only is of this 62-line edition, and contains 168 leaves, like my own. The remaining volumes are of the 67-line edition, and will be referred to below.

The collations of this edition of Mentellin's given by the different authorities coincide, except in the case of the second volume. Van Praet, Brunet, and

Graesse all give 204 leaves; Desbarreaux-Bernard does not give the number of the leaves in any of the four volumes. Of Mentellin's S. Historiale, Kloss had only volumes 1 and 2, and the number of leaves is not recorded.

In the Bodleian Library are two copies of the S. Historale, one of which is in the Douce Collection. I have examined both. Douce's copy is a made-up one, consisting Vol. I. of the 62-line edition as above, and the remainder of the 67-line edition. The second copy consists of the 67-line edition complete.

The following is an account of it:—Volume I. Books I.—VIII.

F. 11., col. a:

Ecundü augustinü · xix · libro de ciuitate dei · ordo est pariü dispariüq3 sua cuiq3 loca tribuës di sposicö. Ex quibus verb' colligit q illa que bene ordinata sunt & disposita facilio in locis suis sue niütur. Et ppter hoc vt

querēti facilis occurrat que i speculo hystoriali cō tinens &c.

¹ According to Desbarreaux-Bernard (p. 8), the colophon in a copy of the S. Historiale in the Bibliothèque Nationale, 4 vols. fol., 2 cols. of 62 lines, is as follows:—

Explicit · Speculum · historiale · fratris · Vicentii · ordinis · predicatorum · Impressum · per · Johannem · Mentellin (sic) · Anno · domini · millesimo · quadringentesimo septimo tercio · quarta die novembris.

This, if correct and not a mistranscription for decembris, points to two issues of the S. Historiale. It is a singular circumstance that this colophon is not quoted by Van Praet, or by Brunet, or by Graesse, and it is still more singular that Desbarreaux-Bernard has made no reference whatever to the December colophon, although it is quoted at full length by all these writers, and is the one contained in the three copies I have seen. My belief is that with November lurking in his memory from the colophon of the S. Morale a couple of paragraphs before, Desbarreaux-Bernard repeated this word instead of putting in the correct one, December. Taking that and the other obvious mistakes he has made, I do not think he has at all fulfilled the promise with which he opens Section II (p. 6) of his tract: "Voici d'abord la description exacte des quatre parties dont se compose l'édition du Speculum quadruplex, généralement attribuée à Mentelin."

⁹ I have to express my thanks to F. Madan, Esq., for the facilities afforded me for consulting these volumes.

This is followed by the Tabula primi voluminis, which ends f. 2 v., col. a, l. 27.

Zorobabel cū fociis I hierufalē reuertit iiii · li · xv

F. 31., col. a:

Speculü hyftoriale Vincentij beluacenîis fratris ordinis edicatorum incipit. Et primo elogo de causa suscepti opis & eius materia. Primu.

Voniă ml'titudo li broru3. Et tempis breuitas memorie

This is followed by the Table of Contents, which ends f. 25 r., col. b, l. 62—Explicitit capitula totius opis speculi historialis. Then l. 63: Continentia secundi libri; and this ends f. 25 v., col. b, line 67:

De api et serapi quos colebant egiptii · cxxxi.

The contents are printed in double columns, not, as in my copy, in four columns.

F. 261., col. a:

I Epilogus de vnitate diuine substantie.

Eus est substătia leorporea simplex & incomutabilislimensa & eterna. & c.

Ends f. 1551., col. b. l. 7:

Primu volumen speculi historialis finit.

F. 155 verso is blank.

Volume II. Books IX.-XVI.

F. II., col. a:

Incipit tabula fecüdi uoluminis feculi hifto rialis

which ends f. 3 r., col. a, l. 20. Then f. 3 v., col. a: Continentia noni libri to f. 4 r., col. a.

F. 4 t., col. b:

I. De promotône claudij ad imperium. Comeftor.

Ends f. 1761., col. b, L 13:

Explicit scd'a pars speculi historialis vincētij.

The following page is blank.

Volume III. Books XVII.-XXIIII.

F. Ir., col. a: .

Bseruet lector qd' in slogo p'mi volumis extat annotati ut si qd' quese rit no statim occurrerit in initijs capi tulo2: no ob hoc desistat a queredo q psepe diuerse materie & historie sub vnico ca pituli titulo pstringuns. &c.

Then follow the contents of the third volume, and of the 17th Book. F. 3r., col. a, l. 45, the text begins:

·I· De côtemporalitate · ix · regnorū & primo de regno romano?. Actor.

and ends f. 175 v., col. b, l. 44:

Tercium volumen speculi historialis vicentij ordinis predicatorum explicit.

Volume IV. Books XXV.—XXXII.
Fol. 11., col. a, l. 11

Ygoland⁹ Ipugnat xoʻia nos xxv li ix. Aldeburgenis ecclefie miraculü xxvi li lxvj. Alexii con ftātinopolitai gefta xxx lib' xc · &·c.

Fol. 2v., col. a, l. 36, the text begins:

·I· De imperio Karoli magni et forma eius ac robore. Sigibertus.

and ends f. 191 v., col.a, l. 13. The concluding lines are:

Et licet iustis sua gaudia sufficiant. ad maiorem tamen gloria vident penas malorum quas per gratiam euaserunt. Quia qui dei claritatem vident nihil in creatura agis quod videre non valeant.

Speculum vincentij historiale explicit.

It is in large folio, 2 columns of 67 lines each, printed in semi-gothic character. There are no head-lines, signatures, catch-words, or numeration, and no place, date, or printer's name. Vol. I. ff. 155; II. ff. 176; III. ff, 175; IV. ff. 191.

This edition differs from that with Mentellin's name, not only in the number of lines and leaves, but also in containing the singularly-shaped capital R, which has attracted so much attention among bibliographers.

Desbarreaux-Bernard's collation of this edition is as follow:

Vol. I. ff. 156; II. ff. 176; III. ff. 176; IV. 192.

No other writer, so far as I have observed, gives these numbers.

PART IV.-SPECULUM MORALE.

F. II., col. a, l. I:

Equitur Tabula breuis alphabetica demonstrās quoto Libro quota Par te quotaq3 Distinctone · queq3 ī hoc volumine principaliter tractata in-

ueniri debeant.

The table ends f. 3 v., col. a, l. 21:

Zelus · libro p'mo · parte p'ma · dist · xxxiiii ·

F. 4 is blank.

F. 5r., col. a, l, I:

INCIPIT PRIMVS LIBER SPECVLI MORALIS

N omnibus operi b⁹ tuis memorare nouiffima tua & i eternum nō peccabis·ecc'i·vii·Hūanū gen⁹ tria Icom moda p peccatum primi homīs ī curriffe·non tam legi m⁹ in ſcripturis q3 ſenſibiliter experi mur ī nobis·videli

cet difficultatem ad bonü agendü impruden ciā ad futura puidendü.

F. 2111., col b. The concluding lines are:

Vincētii Beluacēfis Speculi Moralis Liber Primus finit feliciter.

F. 211v., col. a, l. 1:

Vincentii Beluacēlis Speculi Moralis Liber Secundus in quo de Nouissimis differitur incipit feliciter.

PARS PRIMA. DIS. PRIMA.

This ends f. 263 v., col. a. The concluding lines are:

Vincentii Speculi Moralis Liber Secundus in quo de quatuor nouissimis disseri tur · finit feliciter.

F. 2641., col. a, l. 1:

INCIPIT TERCIVS LIBER SPECVLI MORALIS

Xpeditis per dei gratiam duobus libris huius uolu

minis. In quorti p'mo fapiës ymo dfis p fapientem oftendit affumë dam effe diligen tiam agendorti. cü dicit. In omni

bus opibus tuis. In secudo hortas ad habēdā suidenciā futuro?;. &c.

The work ends f. 474 v., col. b, l. 15. The concluding lines are:

Ad quā incomprehensibilem · ineffa bilem et eternam iubilationis letitiam nos per ducat qui sine sine viuit et regnat in seculoru secula benedictus deus.

SPECVLVM . MORALE . FINIT-

This is followed by one leaf containing a tract De Virginitate: F. 4751., col. a, l. 1:

DE VIRGINITATE.

Vm fecundū Hieronymū Bernardū Ambrofiu3 & Ciprianū virginitas fit excellētifima I genere castitatis · libet mihi octo vtilitates quas virginitas facit ea;

and ends v., col. b.

quapropter hunc vigili follici tudine custodire debemus · & quatoplus hūc nos habere cogitamus · diligentius custodire debemus ne perdamus.

Large folio; 475 leaves; two columns of 62 lines each; head-lines; no signatures, catchwords, or numeration; no place, date, or printer.

The British Museum has a large copy of this volume corresponding with the preceding description, except that it contains 473 leaves only. The Bodleian copy contains 475 leaves. According to Kloss's Catalogue and Van Praet, it contains only 474 leaves, but it is obvious from Van Praet's collation that leaf 4 (which is blank, and which is present in my own and in the British Museum and Bodleian copies) was wanting in his. Brunet and Graesse give 474 leaves.

Van Praet refers to "another copy of the same edition in the Bibliothèque du Roi" which has a long colophon stating that it was printed at Strassburg by Johann Mentellin, November 9th, 1476. How many copies besides it contain this colophon I do not know, but there are three which certainly do

not contain it. Desbarreaux-Bernard quotes this last edition only, but his account gives a quite different result, not only from my copy, but from every other copy on record. He says that it contains 676 leaves. This I consider a positive error; whether an uncorrected misprint, or a miscalculation I am unable to say. He quotes the colophon, previously given by Van Praet, describes the paper and water-marks, and then adds, on Van Praet's authority, that all copies do not contain the colophon. Evidently he has seen only this one copy, and has not concerned himself to look for one without the colophon.

The chief points in the preceding description may now be brought together.

The Speculum Naturale is in 2 volumes, the page containing 2 columns of 66 lines each. The type is semi-gothic, and is distinguished by a capital A of a peculiar form.

The Speculum Doctrinale is in r volume, the page containing 2 columns of 67 lines each. The type is semi-gothic, and it is distinguished by a capital A like that just mentioned, and by a capital R of a very peculiar form.

The Speculum Historiale is in 4 volumes, the page containing 2 columns of 62 lines each. The type is rounder than the preceding. This section has Mentellin's name and the date 1473.

The Speculum Morale is in 3 parts, bound in 1 volume, the page containing 2 columns of 62 lines each. The type is the same as that in the Speculum Historiale. There is no name or date.

As has been noticed in detail, the British Museum copy is similarly composed, but the Bodleian copy has the Speculum Historiale of the 67-line edition, with the curiously formed A and R.

According to Desbarreaux-Bernard, these differences in the form of the type and the number of the lines are not accidental, but are essentially characteristic of three different editions, and his fortune in seeing various copies has enabled him to substantiate this point. The following exhibits the relations of the editions.

1° The 66-line Edition:---

Speculum Naturale. This is well known and is mentioned by the bibliographers.

- ,, Doctrinale. There is a copy in the Bibliothèque Sainte-Geneviève.
- ,, Historiale. There is copy in the Bibliothèque Nationale.
- ,, Morale. According to Desbarreaux-Bernard this edition never existed.

2° The 67-line edition, with the peculiar A and R:-

Speculum Naturale. One volume of this very rare edition Desbarreaux-Bernard discovered in the Toulouse Library.

- , Doctrinale. This is well known, and there is a variation of it.
- ,, Historiale. This is mentioned by the bibliographers, and I have quoted the copy in the Bodleian.
- ,, Morale. Never printed in this edition, according to Desbarreaux-Bernard.

3° The 62-line edition, with Mentellin's name:—

Speculum Naturale. Desbarreaux-Bernard thinks this edition was seen and described by Maittaire.

- " Doctrinale. No copy known.
- ,, Historiale. This is the common one.
- ,, Morale. There is a copy with Mentellin's name and the date 1476, in the Bibliothèque Nationale. The copies in the British Museum and Bodleian and my own copy have no name or date.

It has been the general custom of bibliographers to mix up these different issues and assign the result to Mentellin. The arguments against this view were clearly set forth in Kloss's Catalogue and have been more fully discussed by Desbarreaux-Bernard. It has been on the whole successfully shown that the 66 and 67-line editions were executed by some unknown printers, and that Mentellin's 62-line edition is probably the third in order. Desbarreaux-Bernard has further given reasons for believing that the S. Morale never appeared in the 66 or 67-line edition, but was printed for the first time in the 62-line edition by Mentellin.

It does not seem to me, however, that Desbarreaux-Bernard has been so successful in proving that Mentellin printed the whole four *Specula* in the 62-line form. The *S. Historiale* and the dated *S. Morale* are perfectly certain, and so probably is the undated *S. Morale*. But for the *S. Doctrinale* he can produce no evidence in any shape, and as to the *S. Naturale* he is only able to infer that Maittaire saw a copy. Maittaire, indeed, saw the *S. Naturale* and the *S. Historiale*. The latter had Mentellin's name and date, and both were printed in a type "Gothicus et satis venustus." Desbarreaux-Bernard assumes that if the *S. Naturale* had been a 66 or 67-line copy, Maittaire would have noticed the difference in the type, and he thinks that the phrase "satis

venustus" applies more accurately to Mentellin's "round" type than to the semi-gothic of the other editions. Maittaire's copy, he therefore concludes, was of the 62-line edition.

I should never think of denying the possibility of a 62-line copy of the S. Naturale, but I should like some more conclusive evidence. Maittaire probably never troubled himself about the not very striking difference between the semi-gothic and the round characters, and the phrase satis venustus seems to me more applicable to the type of the 66-line edition than to Mentellin's. Moreover, Maittaire calls the character gothic, and part of Desbarreaux-Bernard's argument against the 66 or 67-line edition being by Mentellin is that Mentellin's characters are not even semi-gothic but round, and he criticises Van Praet on this very point. Moreover, not one single 62-line copy of the S. Naturale is quoted by any authority, Maittaire included, and the whole passage appears to me to have had its meaning warped for Desbarreaux-Bernard—by his pre-conceived notion of three distinct and entire editions. of which one only is by Mentellin. In the meantime the only conclusion that seems to agree with the facts is that, whether the 66 and 67-line editions were printed by Mentellin or not, only the S. Historiale and Morale in the 62-line form can be definitely ascribed to him. If copies of the other portions in the same form should ever be discovered, then Desbarreaux-Bertrand shall have proved this part of his thesis also, but until the actual copies or stronger proofs of their existence are produced, this part of his conclusions can be regarded only as a hypothesis. It is just possible that Mentellin for some reason did not find it necessary to reprint the S. Naturale and Doctrinale at all, but confined himself to the S. Historiale, and added the S. Morale, which had not appeared before. It is a curious confirmation of the view that the common copies (if such a thing can be spoken about) are those not only which have been described in the present paper, but which are best known to every bibliographer-viz., S. Naturale, 66 lines; S. Doctrinale, 67 lines; S. Historiale, 62 lines; S. Morale, 62 lines. Those which occur more rarely

¹ That the 67-line one was *not*, is probably proved by the occurrence of the curious capital R, which is not met with in any acknowledged work by Mentellin. It occurs also in the 67-line edition of the *Catholicon*, of which very rare work there is a copy in the Hunterian Library.

are: S. Naturale, 67 lines; and S. Historiale, 67 lines. Those which are quite unknown are: S. Naturale, 62 lines; S. Doctrinale, 62 lines; S. Morele, 66 and 67 lines. There must be some reason for this—I do not think that it has as yet been fully given.

I have spoken just now of "the common copies," but such a phrase is entirely relative, for there is hardly any book less common than a complete set of the editio princeps (however constituted) of the Speculum Majore. Besides the copy now described, there are only other two in this country which I know of, one in the British Museum, and one in the Bodleian. In the Sunderland Library there were only the S. Naturale and S. Historiale. In the great library at Althorp there are—according to Dibdini—only three out of the four volumes of the S. Historiale. After ransacking all the published catalogues obtainable, I have been able to find no other copies. But, besides, every one, Maittaire, De Bure, Clément, Brunet, &c., &c., has without exception alluded to its extreme rarity, and Desbarreaux-Bernard has added that if an occasional section of it be met with, even it is usually incomplete. The present copy, therefore, as containing all the parts, and representing the first three issues, is specially important.

These volumes, however, possess additional interest to their rarity, for they occupy a conspicuous place in the history of printing. They are among the earliest specimens of the art, they are certainly among the first—if they be not actually the first produced at Strassburg. It has been even claimed for Mentellin that printing was discovered by him at Strassburg, but though that claim has been long since disposed of, there is no doubt that Mentellin was one of the first printers. The magnificence of the editio princeps of the Speculum, in which Mentellin may be said to have a share, shows what an artistic perfection printing reached almost as soon as it was invented. The paper—better than the best of modern drawing paper—the ink, black and lustrous, the size of the page, the width of the margins, the arrangement of the matter, everything reveals the fact that the first printers were artists, not mere mechanics; and when one contemplates these volumes, the expression regal, which has been used regarding them, is assuredly felt to be the most appro-

¹ Supplement to the Bibliotheca Spenceriana, London, 1822, p. 33, No. 1036.

priate. Further, the *Speculum Historiale* is one of two or (if the dated copy of the *S. Morale* be included) of three books, which have the date as well as Mentellin's name, and if Schoepflin¹ be correct, it is the the first book that was printed from type not cut, but cast.

If it be not nearly so rare as the Valdarfer *Boccacio*, if it be not possessed of the age and the historical and intrinsic value of the Gutenberg *Bible* or the Fust and Schoeffer *Psalter*, if it be not able to command the price of much more recent and more abundant books, yet as a monument of medieval learning and labour and of fifteenth century art, skill, and conscientiousness, nothing more could be desired.

¹ Vindicia Typographica, Argentorati, 1760, p. 47.

