

HISTORICAL SKETCH.

SCHOLASTICS AND MYSTICS.

THE thirteenth century was one of the great periods in human history. It has been spoken of as "the trumpet call which summoned the middle ages into the modern world." Important changes took place in theology, philosophy and science. The impulse to advancement in science came largely from the Arabs, and especially from the study of the writings of Aristotle. It was a period of "wonderful" doctors. Through all the ages there have been individuals who either have claimed to possess, or to whom there has been attributed, a miraculous power over disease. Probably at no time in history were there more exaggerated instances of this belief than during the middle ages.

ALBERTUS MAGNUS, 1193-1280.

Albertus Magnus was one of those fortunate individuals who won the encomiums of both physicians and theologians. He was neither more or



Albertus Magnus.

less learned than the schoolmen of his day. At a time when Peter the Lombard described the earth as a square table and the heavens as a solid

dome, Albertus Magnus discussed with great zeal the question whether Eve was made out of a whole rib or only from the bony portion. Albertus wrote voluminously, if not intelligently, upon chemistry, botany, physiology, astronomy, magnetism, astrology and kindred topics. A treatise, *De Secretis Mulierum*, which bears his name, is said to have been written by one of his pupils.

Libri Secretorum Alberti magni de virtutibus herbarum et animalium quorundam. Eiusdemque libri de mirabilibus mundi etiam de quibusdam effectibus causatis a quibusdam animalibus etc.



Title-page of "De Secretis Mulierum" of Albertus Magnus, 1503.

ARNOLD OF VILLANOVA, 1235-1312.

Many cities have claimed to be the birthplace of Arnold. Having abandoned theology, he studied medicine in Montpellier. He traveled extensively and toward the close of the thirteenth century was a teacher at

Barcelona. He was an alchemist who sought not so much for gold as for the elixir of life. In his medical practice he adopted the chemical discoveries of the Arabs, and added them to the dietetic and hygienic rules of the Salernian school. Many of his aphorisms are worthy of record. "The modest and wise physician will never hasten to pharmacy unless compelled by necessity," said Arnold. The most valuable medical compendium of the age, *Breviarium Practicæ*, has been ascribed to him.

ROGER BACON, 1214-1298.

Roger Bacon was an Englishman, and was born near Ilchester. He was one of the most remarkable men of his time. Educated in Oxford and



Roger Bacon.

Paris, he devoted his talents, time and fortune to searching after truth. He delved into many fields, and believed in many things which were long ago relegated to the land of myth. He has been called the first inductive philosopher. His *Opus Magnum* opens with truisms which must be regarded as powerful protests against the authority of the time: "There are four impediments to knowledge: *first*, too great dependence upon authority; *second*, allowing too great weight to custom; *third*, the fear of offending the vulgar; *fourth*, the affectation of concealing ignorance by a display of a specious appearance of knowledge." He wrote on optics and the-

ology, magic and astronomy, chemistry and alchemy, and many other subjects. He investigated the tides, described the shape of the earth as spherical, compounded explosive mixtures, and wrote concerning the philosopher's stone. This he describes as "that medicine which taketh away all the impurities and corruption of a baser metal, so as to make it into purest silver and gold; and is thought by wise men to be able wholly to remove the corruptions of the human body, so as to prolong life for many ages."

Bacon found the error of the Julian calendar, which was corrected three centuries later by Gregory XIII., and called attention to the value of experimental research. While there is no doubt that many discoveries and inventions have been erroneously attributed to him, it cannot be questioned that he was one of the world's greatest men.

RAYMOND LULLY, 1235-1315.

Lully is best known as an alchemist. Like all the physicians of the time, he was a monk. Fabulous stories have been told of his accomplishments. He wrote numerous medical works, the most important being *De Pulsibus et Urinis*, *De Medicina*, *De Aquis et Oleis*. He met a tragic end, being stoned to death by the people of Tunis. Like all great minds of the middle ages, he was regarded as a sorcerer. Doubtless his alchemistic knowledge came from Arabic sources.

[TO BE CONCLUDED.]

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SCHOLASTICS AND MYSTICS.

By JAMES MOORES BALL, M. D., of St. Louis.

[CONTINUED FROM MAY ISSUE.]

PARACELSUS, 1493-1541.

No character in medical history produced more strife during his lifetime or more controversy after his death than Paracelsus. His admirers speak of him as the "Reformer of Medicine," while others regard him as the greatest quack of all the ages. Historians, philosophers, biographers and poets have attempted to portray his character, and have left the reader in doubt as to the status of this celebrated individual. To appreciate his worth it is necessary to view him through sixteenth century lenses. Van Helmont spoke of him as "the forerunner of true medicine, God-sent and armed with knowledge to decompose bodies by fire, and his excellent cures put all Germany into commotion." On the other hand, Timmermann said of him: "He lived like a hog, looked like a carter, found his chief pleasure in the society of the lowest and most debauched of the rabble, was drunk the greatest part of his life, and seemed to have composed all he wrote in this condition."

In the latter part of the fifteenth century a certain physician by the name of Wilhelm Bombast von Hohenheim lived in the village of Einsiedeln near Zürich in Switzerland. He was descended from an old and celebrated family.¹ He married the lady superintendent of the hospital attached to the convent in the village. From this union there came the child who was to become the famous Paracelsus. The name given to the child was this: Phillipus Aureolus Theophrastus Paracelsus Bombastus von Hohenheim. The father of Paracelsus in 1502 removed to Villach, in Carinthia, where he died in 1534. Long before this event his son had set the medical world awry. Young Paracelsus studied in the university of Basel, but soon gave up the university to learn from the celebrated alchemists, John Trithemius and Sigismond Fugger. About this time Paracelsus became a traveler and visited the greater portion of Europe, stopping at each great university and receiving his medical degree from one of them. On these journeys he visited Spain, Portugal, Prussia, Poland, Transylvania, Hungary, Denmark, Sweden, Russia, and Turkey. It must not be supposed that Paracelsus passed all of his time lounging about the universities. Far from it. He delighted to learn from the common people, and listened to the tales of old women, Jews, gypsies, tramps, and shepherds. From them he learned many of nature's secrets unknown to the university professors. From these wanderings Paracelsus came to look with disdain upon the teachings of the regular authorities, and regarded books with contempt. "Reading," said he, "never made a doctor, but practice is what forms a physician. For all reading is a

¹ Löcher: Theophrastus Paracelsus Bombastus von Hohenheim der Luther der Medicin, p. 17. Zürich, 1851.

footstool to practice, and a mere feather broom. He who meditates discovers something." Often Paracelsus was seen in the company of the rabble, drinking with them and singing their songs. Habits of dissipation grew on him, but this was an age of drunkenness and debauchery. After an absence of ten years, at the age of thirty-two, Paracelsus suddenly appeared in Germany and astonished the whole land with his remarkable cures. No man ever had more eminent personages for patients. Paracelsus in his thirty-third year could boast of having cured thirteen princes



Paracelsus.

whose cases had been given over by the Galenic doctors of the time. He cured Froeben, the great printer of Basel, of the gout by using laudanum. Erasmus, having consulted the great physician, wrote him, saying: "There is nothing inappropriate in wishing mental happiness to the physician by whom the Lord restores us to bodily health. I am surprised at your knowing my case so well after having seen me only once." In the same letter the theologian speaks of his friend the publisher: "You recalled Frobenius from the shades of death." Œcolampadius, one of the enthusiastic leaders of the Reformation, believed in Paracelsus and caused him to be appointed professor of physic and surgery in the University of Basel in the year 1527.

Basel, at this time, was not an ordinary town. The founding of the university in 1460 and the admission of the city into the Swiss Confederacy in 1501, combined with the freedom from persecution which reformers here enjoyed, led to the upbuilding of a society which was learned and cultured. Here Erasmus and *Æcolampadius* were living, and here came Paracelsus to try to cause in medicine as great a revolution as the reformers had made in matters of religion. Here, on the fifth of June, in 1527, Paracelsus announced by a short Latin program that he intended to elucidate his own writings on medicine, surgery and physic, and to lecture on the cure of disease without regard to the views of accepted authors. To the astonishment of the medical profession, Paracelsus delivered his lectures in the German language. This unheard-of innovation caused the greatest sensation. It was surpassed, however, when the lecturer publicly burned the books of Galen and Avicenna, saying that they did not contain as much knowledge as his shoe latches! "A physician," said Paracelsus, "must be a traveler. Diseases wander hither and thither, world-wide, and remain not stationary at one place. If a man wishes to learn much of disease, let him travel far; if he do so, he will acquire great experience. Countries are the leaves of Nature's code of law, patients the only books of the true physician. Reading never made a physician—only practice."

A wonderful spectacle was this. For centuries the world had worshipped blindly at the shrines of Galen, *Ætius*, *Oribasius*, *Rhazes*, *Avicenna*, and *Averroës*. "Away with them!" cried Paracelsus. The empty benches of the university of Basel were soon crowded with anxious listeners. The pall had long been lifted from literature, and now science was to be uncovered. It was a courageous act for the reformer to pit himself against the whole profession of his time. Destroying the sacred books of medicine, he declared that these have been blind guides, and bade his hearers follow him to the land of truth. Though every man's hand be against him, he will not fail to lead them.

However, the priests and doctors succeeded in driving Paracelsus from Basel. The medical profession was not looking for reformers.

During his stay in Basel, Paracelsus was often inebriated. Indeed, his secretary, *Oporinus*, states that for two years the reformer was drunk every day, never undressed himself, and went to bed with his famous sword by his side, which he would often draw and flourish to the great alarm of the secretary. The sword became an attribute of Paracelsus and was mentioned by *Hudibras*:

"Bombastes kept a devil's bird,
Shut in the pummel of his sword,
That taught him all the cunning pranks
Of past and future mountebanks."

Expelled from Basel, Paracelsus again became a wanderer. The last days of his life were passed in a cell in a hospital in Salzburg where he died in 1541. His epitaph states: "Here lies *Phillippus Paracelsus*, the famous doctor of medicine, who, by his wonderful art, cured bad wounds, lepra, gout, dropsy, and other incurable diseases, and, to his own honor,

divided his possessions among the poor." Recent investigations show that he was murdered at the instigation of jealous rivals.

Unfortunately for Paracelsus, his claims as a reformer rest on sand. A master of invective, he abused the Galenic doctors and tried to supplant their doctrines with his own crazy notions. Here is his abuse of Galen: "He cannot boast of a single experiment, but learnt everything from others. He opposes nature in all, and is, therefore, a liar who can do nothing but collect pearls and turn them into pebbles; wherefore he is in the lowest hell, whither his disciples will follow him." This of the great Galen who, although making many blunders, had given the medical world many of its greatest truths! Bombastes respected only Apollo, Machaon, and Hippocrates among the ancients. His conception of "true and divine medicine" rests upon four "pillars" which are as firm as a rock. These pillars are: philosophy, astronomy, alchemy, and virtue of the physician. Of the first he said: "Philosophy is the gate of medicine, and they who go not in thereat climb in by the roof and become thieves and murderers." It was not the philosophy of Aristotle that Paracelsus had in mind, but the whole circle of physical, and particularly magical, sciences. His "anatomy" was not the dissection of bodies which is done by "Italian jugglers," but "the anatomy of the essence"—an imaginary analysis of man into mystical ingredients, salt, sulphur and mercury. His "anatomy" reads like the ravings of a madman. Thus he describes the eyes and divides the consideration of their anatomy into the *substance*, the *material*, and the *form*, of which the substance is from without, the material from within, and the form in both:

"1. SUBSTANTIA.—The eyes are twins; that is, two fruits, or products, joined in the form of a cross, with reference to a center, in order that they may have, as nearly as may be, the same integral composition. They are united in the middle, and thence look downward with the stem, and upward with the root. These trunks give off no branches, but only fruit; that is, they produce a blossom which is the material, and bear fruit which is the sight. The flower is white, the fruit is purple, and each of them has a bark, which forms the tunics. The wood is what intervenes between the tunics and the root. In the pith is situated the sight; that is, the substance of the eye.

"2. MATERIA.—The material consists of three things: namely, sulphur, salt, and mercury." (According to Paracelsus, these three were the ingredients of every thing.) "Sulphur is the flower and fruit, in all colors, according to the mode of resolution, outside the visual body. The visual body is Mercurius, in which is contained the perfected sight, without any other material. Salt is the solidification of both, since it reduces the parts into one form; that is, it completes the essence of the visual body,

"3. FORMA.—The form is that of a cross, because the central part bears twins. Afterward, each twin passes into its own form, or rotundity, since the eyes in the body fill the place of the sun, as in a microcosm."

Astronomy is the second pillar of Paracelsian medicine. "No one can be a good physician who is not skilled in astronomy."

Alchemy is the third pillar. "Without a perfect knowledge of alchemy, the physician will use all the resources of his art in vain." The great use of alchemy in medicine is to separate the quintessences of drugs.

¹ Dalton: Galen and Paracelsus, p. 23. New York, 1873.

"Take it not amiss," he said, "that the alchemy I teach yields neither gold nor silver; but look upon it as the key which opens the arcana of medicine to you." "What is alchemy? A preparer of medicines, a purifier of medicines, giving them perfect and entire, so that the physician may fully accomplish his art." "The third pillar of medicine is alchemy; not that alchemy which makes gold and silver (for these blockheads swarm in all countries), but the alchemy which instructs us how to separate each *mysterium* into its own *reservaculum*."

Virtue of the physician is the fourth pillar, for only the virtuous are permitted to understand the innermost secrets of man and nature.

Paracelsus viewed man as a microcosm: "There is nothing in heaven or earth which is not in man; and God, who is in heaven, is also in man." Disease is caused by the action of various constituents of the universe upon man. He mentions five "Beings" (*Entia*) which cause all diseases, and each of these can cause any disease. "When a physician, therefore, finds himself in the presence of a paralytic he must, before all things, discover which 'Eus' has produced the paralysis." The *Entia* are: *Ens Astrorum* (influence of the stars); *Ens Veneni* (poison); *Ens Naturale* (disturbances arising within the body); *Ens Spirituale* (spiritual agencies); and *Ens Dei* (direct action of God who sends diseases as punishments). The first four *Entia* affect only Turks, Saracens, and other infidels.

There is much more to the so-called "system" of Paracelsus. Disease is caused by changes in the three mystic elements—salt, sulphur, and mercury. In health these are so mingled that they cannot be separated; but when separate, sickness is caused, and if completely separated death results. "What burns is sulphur, what smokes or sublimates is mercury, the ashes are salt." "Distilled 'mercury' produces paralysis, precipitated gout, sublimated mania."¹ I do not consider it necessary to consider the Paracelsian pathology at length. Those who are interested in the subject will probably find that it has neither beginning nor end.

Withington considers that the modern admirers of Paracelsus belong to two classes: "German medical historians, in search of some one to rival the fame of Harvey and the great French and Italian surgeons and anatomists; and theosophists anxious to show what benefits have been bestowed on mankind by the great adepts or Mahatmas. They have raised an imposing monument to their hero on somewhat slight foundations. Does Paracelsus abuse Galen and Avicenna? He is the reformer of medicine! Does he say that air is contained in water? He is the immortal discoverer of hydrogen! Did he call one of his secret nostrums 'laudanum'? 'He bestowed on mankind the inestimable gift of opium!'"² The historians, indeed, admit that if he wrote all the absurdities attributed to him, he cannot be the reformer of medicine, the German Harvey; and they attempt to show that most of his works are spurious, and written by crack-brained pupils, or even by his enemies to bring him into ridicule. But it is just these works which excite the admiration of our modern mystics. Paracelsus, say they, in his leisure moments, doubtless reformed medicine, discovered hydrogen, and invented laudanum; but it is in what you call absurdities that we recognize the language of the great adept, the friend of the Khan of Tartary, who conversed with esoteric Buddhists on the northern slopes of the Himalaya."

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¹ Withington: *Medical History from the Earliest Times*, p. 258. London, 1894.

² *Ibid.*, p. 259.

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[CONTINUED FROM THE JUNE ISSUE.]

CORNELIUS AGRIPPA, 1486-1535.

While Paracelsus was wandering from place to place, leading a precarious and dissolute life, Henry Cornelius Agrippa, knight, physician and magician, was placed in a similar position by reason of his quarrels with the theologians. Educated in Cologne, Agrippa followed the profession of arms, which he abandoned for the law. While on a military expedition to Catalonia he became a member of a secret society of theosophists. In 1509, while delivering lectures in the University of Dôle, in Burgundy, he aroused the enmity of the monks, who hounded him during life, and did not forget, after his death, to place a tombstone over his remains inscribed in malignant terms.

Agrippa wrote numerous books, one of which was the treatise *De Occulta Philosophia*. His book, *De Incertitudine et Vanitate Scientiarum et Artium*, is filled with satire directed against the existing state of science and pretensions of the learned men of the time. That Agrippa was greater than his age is shown by the fact that he publicly defended a woman accused of witchcraft; and by his opinion of alchemy, of which he speaks in these terms: "In fine, having lost the time and the money which you have devoted to it, you will find yourself old, ragged, hated, famished, always smelling the sulphur, soiled with sweat and charcoal, paralytic by frequent manipulation of quicksilver, and gaining nothing but a running nose; in a word, so unhappy that you will be willing to sell your body, and even your soul."

Agrippa is regarded as a follower of cabalistic medicine. His predilection for the Platonic philosophy is shown by his own words: "If you desire to obtain wisdom from the tree of life * * * reject all human doctrines, all the curiosities and discourses on the flesh and the blood, re-enter into yourselves and there you will learn everything; but if you cannot perceive them by clear and manifest intelligence, as well as the saints, it is necessary to have recourse to Moses, to the prophets, to Solomon, to the evangelists, to the apostles—for all the secrets of God and nature, the reason and basis of all laws and customs, the knowledge of all things present, past and future, are contained in the holy writings of the Bible."

Long before the time of Agrippa learned men attempted to apply Plato's ideas to physics. They held that to acquire scientific truths mental reflection is a necessity; and they admitted a relationship between the celestial bodies and the earth's inhabitants. They conceived many of the phenomena of this world to be due to astral influences. From these beliefs to the doctrines of the Occultists and Cabalists is but a step.

I have not the time or inclination to delve into the doctrines of the Cabalists. Perhaps it will suffice to state that the Cabal, or Kabbalah, is of Hebrew origin; that it attributed hidden meanings to every letter, word and accent of Scripture; that the cabalistic knowledge was esoteric; and



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that future events can be foretold. The cabalistic philosophy was divided into theosophy, magic, astrology and alchemy. The cabalistic doctrines were potent from the fact that they drew support from many sources. The desire to convert the baser metals into gold, the search for an elixir of life,

the teachings of visionaries and fanatics, the errors of science, the prejudices of superstition, and the belief in a personal devil, all combined to propagate and perpetuate the follies of the Kabbalah. Surely this was a period of greatest darkness, of most appalling ignorance, which preceded the dawning of a glorious day.

Cabalism had an undoubted influence upon the medicine of the middle ages. The belief that evil spirits cause disease long held sway. The belief in witches obtained a credence which was almost universal. The wholesale burning of witches began in Germany in 1484, owing to a bull issued by Pope Innocent VIII., and continued until late in the eighteenth century; and in enlightened America the most terrible tortures were inflicted upon alleged witches as late as 1692.

JEROME CARDAN, 1501-1576.

Another restless spirit and follower of cabalistic medicine was Jerome Cardan, "the wisest fool and the most foolish wise man" of his time. This illegitimate son of a learned mathematician of Milan was born at Pavia, where his mother had traveled to become rid of her offspring. The child took the plague at an early age, and it is said that "there appeared at the same time five carbuncles on its face: one on the nose and four others arranged around it in the form of a cross." Such was the inauspicious beginning of a powerful intellect.

Cardan was equally famous as a mathematician, physician and astrologer. In his twenty-fifth year he received a medical degree from Padua. This was not recognized by the Milanese, among whom he settled, and he was "denied the right of practicing legitimately, because he had not been legitimately born." However, he was appointed a lecturer on arithmetic, geometry and astronomy, and was so poor that some of his time was spent in prison for debt. Although he stood high in mathematics, his medical knowledge was little in advance of that possessed by Hippocrates and Galen. In 1534 he was offered a professorship in the medical school at Padua, but declined it because of uncertainty of being paid. Five years later he was admitted as a member of the College of Physicians of Milan, and later delivered medical lectures in that city. Vesalius secured for him an offer from the King of Denmark, which was refused on account of the coldness of the climate. In 1552 Cardan was summoned to Scotland to attend the Archbishop of St. Andrew's; his success in this case was so marked that he was called to London by Edward VI., who asked him to locate in England. Cardan, however, predicted the early death of the king, and did not think it wise to remain. Returning to Italy, he settled in Bologna, where he taught medicine until 1571, when he was called to Rome and was given a pension by the Pope. Cardan died in this city in 1571. It is said that he foretold the date of his death, and starved himself so that the prediction might be fulfilled.

Cardan claimed to possess special gifts by which he could throw himself into a trance, see visions, and foretell the future by dreams, or by the appearance of his nails. All his life he was half mad; but he believed in himself and addressed not the rabble but the learned. Properly speaking, he was not an impostor, yet he resorted to questionable methods to gain notoriety. Thus, after his visit to Scotland, he wore in Rome the garb of

a Scotchman, and "was dressed as no other mortal." When called in consultation in the case of the son of a senator, he pronounced the disease *Opisthotonos*, a word unknown to the other medical men. When asked how to cure it, he replied with quotations from Hippocrates and Galen; and having ousted the other physicians, proceeded to cure the patient. Considering the period in which he lived, it is not surprising that he held many erroneous opinions. He had this to say of the weapon salve: "It is reported that if a weapon with which a man has been wounded is exposed to the air the patient suffers severe pain; and, on the other hand, that there is an ointment which, when applied to the weapon, will relieve the patient as much as if an effectual remedy had been placed on the wound." His first book was entitled *De Malo Medendi Usu*, and exposed the fallacies of the faculty. It gave the profession great offense and brought the writer into prominence and practice.

THE ROSICRUCIANS.

The unrest and gullibility of the enlightened nations of the seventeenth century, and the liking for the mystical, cabalistic and theosophical are evidenced by the rise of the Rosicrucians. The origin of the Society of the Rosy-Cross is attributed to a learned joker, Johann Valentin Andreae (1586-1654), whose book, *Allgemeine und General-Reformation der ganzen Welt beneben der Farna Fraternitas des loblichen Ordens des Rosenkreuzes*, appeared anonymously at Cassel in 1614. This states that Christian Rosenkreuz, a German, had founded a society in the fourteenth century, after having learned the sublime wisdom of the Orient. The author was said to have imparted his secrets to three disciples, who formulated these laws for the government of the society:

1. The members should practice medicine and treat the sick gratuitously;
2. They should wear the dress of the country in which they should reside;
3. They should convene on the anniversary of their founder's birthday, at a secret place called the Chapel of the Holy Spirit;
4. They should initiate worthy laymen into their mysteries in order to perpetuate the society;
5. The watchword should be "Rosenkreuz;"
6. The existence of the society should be concealed for one hundred years;

The society is said to have been Christian but anti-Catholic. Its members were promised extravagant things—celestial knowledge, great wealth, the elixir of life, and the philosopher's stone. After the public had been thoroughly aroused, Andreae explained that the book was a fabrication and a joke. His statement ought to have been the end of the Rosicrucians, but it was not so to be. The idea of a fraternity of the Rosy-Cross struck a popular cord, and the Rosicrucians soon grew to be a power. A vast literature of a controversial character sprang up; and while some condemned the Rosicrucians as heretics in theology and medicine, others, like Fludd, defended the order. Among the most celebrated of the Rosicrucians were Valentine Wiesel, Jacob Boehm, Oswald Crollius, and Robert Fludd.

ROBERT FLUDD, 1574-1637.

What Paracelsus was to the sixteenth century, Robert Fludd, an English physician and mystical philosopher, attempted to become in the seventeenth. He called himself *Robertus De Fluctibus*. Born at Milgate, in Kent, he entered Oxford, and afterward spent six years in traveling, in order to gain knowledge of the curious and mysterious. While on the continent he became familiar with the writings of Paracelsus, upon which basis he endeavored to form a system of philosophy founded on the identity of spiritual and physical truth. All the curious dreams of ancient and modern mystics were eagerly seized upon by Fludd, and from these he compounded a new mass of absurdity. "In hopes of improving the medical and chemical arts," says Enfield,¹ "he devised a new system of physics, loaded with wonderful hypotheses and mystical fictions. He supposed two universal principles: the northern or condensing power, and the southern or rarefying power. Over these he placed innumerable intelligences and geniuses, and called together whole troops of spirits from the four winds, to whom he committed the charge of diseases. He applied his thermometer to discover the harmony between the macrocosm and the microcosm, or the world of nature and of man; he introduced many marvelous fictions into natural philosophy and medicine."

[TO BE CONCLUDED.]