

PARACELSUS

FATHER OF MODERN MEDICINE

Four hundred years ago at Salzburg, the Ancient, a man was carried to his grave—one of the great men of science, the father of modern medicine, Theophrastus Bombastus von Hohenheim, known to posterity as Aureolus Philippus Paracelsus.

At a time when medicine was little more than a *mixtum compositum* of ignorance, superstition and the dry postulations of the Greek Galenus and his pupil, the Arab Avicenna—when even the great Hippocrates was only half remembered—Paracelsus had the vision and the courage to go back to nature and experiment to find the true key to diagnosis and the cure for the ills that beset the world.

"Whence have I all my secrets;" he wrote, "from what scholars and writers? Ask me rather how the animals have learned their arts. If nature can teach dumb beasts, can it not do as much for man?"

And again:

"I have come to learn, to follow, to believe naught that cannot be proven by experience and faithful practice."

In fact, so provoked was Paracelsus with abstract and bookish learning that, of a Midsummernight at Basel, he threw the canons of Galenus and Avicenna bodily into one of the bonfires that blazed on every hilltop about the town to celebrate the summer solstice.

Youth and Study

His father, Wilhelm Bombastus von Hohenheim, was a hard working Swabian medico, his mother the superintendent of a Swiss hospital. Paracelsus was therefore practically a physician born when he first saw the light of day at Einsiedeln in Switzerland, A. D. 1493. His parents taught him to the limits of their own knowledge. In time they sent him to the University of Ferrara in Italy where he read under the great Nicolo Leonicensi of Vicenza, a man steeped in the humanistic tradition. There young Theophrastus Bombastus von Hohenheim, in the manner of the times, latinized his German name and received his doctor's robe.

However, even then he began to rebel against the humanistic and philological approach to medicine. While on a higher level than medieval quackery, *materia medica* still shunned any direct approach to nature by observation and experiment. Paracelsus divined that the path of true knowledge led in this direction and, in search of further instruction—the right kind of teaching—went to join Johannes Trithemius, the scholarly abbot of Sponheim and later of Wuerzburg. This gifted dilettante whose quest, as that of all alchemists, was for the stone of wisdom and the elixir of life, conducted extensive chemical experiments which fascinated the young doctor the more since they confirmed his own conviction that only thus could true wisdom be found.

After a short sojourn with the learned abbot, Paracelsus went to the Tyrol where he found ample opportunity for nature study and experimentation in the mines owned



Aureolus Philippus Theophrastus Paracelsus
ex familia Bombastorum ab Hohenheim
Philosophus, Medicus, Mathematicus, Chimicus
Cabalista, rerum naturæ industrius, indagator *
Alterius non fit, qui suus esse potest * Laus Deo
Pax vivis, Requias æterna sepultis.

Brühl sc. 1596

by the famous Fuggers. Rock formations, minerals, ores and mineral waters were the objects of his studies; but he also devoted a great deal of attention to miners' accidents and diseases. Soon Paracelsus threw overboard philological abstractions and scholastic prejudices and began to evolve his own medical theories, to practice medicine in the light of his new knowledge.

Fight and Flight

Ten years of further studies in many parts of Europe eventually led him to Basel, where he started to teach medicine.

His lectures were as battle cries of freedom, for this young physician challenged all established theory and practice. With the courage of the crusader he stormed the bastions of the entrenched and hidebound, shooting poison darts of sarcasm with deadly accuracy at hollow braggadocio, pricking the balloons of medical pomposity, berating physicians for their ignorance and their greed. And to make things worse, he was able to point to success and prestige to back his unorthodox conceits.

His teachings were revolutionary in the best sense of the word and threatened to rob practicing physicians in Basel of their reputation as well as their patients.

Soon the harassed medicos took retaliatory measures. Rumors were spread that Paracelsus did not have a doctor's degree; pharmacists were incited to turn against him by reason of his unusual medication. Law suits threatened to engulf him. Eventually even his life seemed in danger. At last his friends prevailed upon him to flee inhospitable Basel, which he did in great haste, leaving behind his books, his valuable mineral collection, carrying, like the philosopher of old, everything he had on his person.

Driven from pillar to post, Paracelsus was forced to resume his wandering to the ends of the continent, the hatred of his adversaries ever and anon catching up with him. To Innsbruck, to Ulm, to the court of the Roman emperors, to Switzerland, Hungary and Moravia; once more to Carinthia where he had spent most of his youth; to Augsburg, Munich, Breslau and Vienna, always for brief stays; twelve years of unrest, fight and flight. Until, at long last, Archbishop Ernst von Salzburg offered sanctuary at his court. But even this idyll lasted only a while. A malignant tumor which even he, great physician that he had become, was powerless to cure, brought sudden death. He breathed his last in September, 1541, and was given a Christian burial at the church of St. Sebastian.

Nature and Experiment

It goes without saying that medicine has made tremendous strides in the intervening four centuries. Still much of what Paracelsus taught is as modern as the present day. But what is most stimulating in his writings is his general attitude toward medical problems. For Paracelsus was by no means a specialist interested only in certain organs of the human body. For him man was a psychophysical entity, a miraculous microcosm, both reflection and part of the macrocosm of nature. Everything happening in nature inexorably influences man; whatever befalls one part of the structure of man has its inevitable bearing upon the body as a whole. Thus no problem of medicine can be thoroughly understood without contemplating the universe *in toto*.

This universe Paracelsus looked upon with deep reverence. Though he quarreled with the Roman Catholic dogma, he could never bring himself to embrace the new doctrines of Martin Luther. Nevertheless Paracelsus was by no means lukewarm in his Christian faith. Careful observance of the tenets of brotherly love and complete subordination of the pursuit of earthly goods to the higher aims of life were the backbone of a Christian belief which, theoretically, placed him somewhere near Sebastian Franck and the Bohemian Brothers.

Out of his deep reverence of God grew Paracelsus' trust in the healing powers of nature. The physician, he maintained, cannot perform miracles by creating something out of nothing, but he can help nature achieve her own ends. What he must understand before everything else is that life is perpetual change, and that this change expresses itself in chemical form. Chemistry, then, is *scientia mutationum*, the science of change; its application, *operatio naturae*. Nature holds the secret of all chemical compounds including those which counteract unwanted results.

For these various elements and chemical compounds Paracelsus suggested symbolic terms which frequently had some magical connotation and which, naturally, are no longer in use. Thus he called red orpiment (arsenic trisulphate) "The Red Lion;" common orpiment, "The Yellow Lion;" gold, "The Red Lily," etc.

This mystic terminology attracted a great deal of attention among Paracelsus' contemporaries and fascinated even Goethe at the time he was writing "Faust." All these flights of fancy into the unknown, however, were of secondary importance; the practice of chemical therapy and the inquiry into the dynamics of chemical changes always came first. But so novel were the ideas that Paracelsus himself did not always grasp them fully nor express them clearly. Small wonder, then, that his pupils mistook them for merely another system and a new dogma.

Death and Resurrection

In this manner Paracelsus gradually fell into disrepute, and a pall of ill will and ignorance began to shroud his life. In fact, for centuries his name stood for little more than that of a quack, until German scholars began to refurbish his memory. In 1752 the City of Salzburg erected the first monument in his honor. In 1835 Robert Browning wrote a play dealing with Paracelsus' spiritual development. Erwin Guido Kolbenheyer's powerful trilogy on the life of Paracelsus was written between 1917 and 1926. That same year the first volume of the still uncompleted scholarly edition of Paracelsus' collected works appeared under the able editorship of Karl Sudhoff, and a modernized version of his writings was published, revised by Bernhard Aschmer.

Salzburg is honoring the four hundredth anniversary of Paracelsus' death with a series of events. The first was a meeting of the German Academy of Naturalists held early this year. Within the next few months an international festival as part of Salzburg's famous "Science Weeks" will follow, offering a welcome opportunity to center the attention of the entire world upon this great German scientist and sage.

KAISER-WILHELM-GESELLSCHAFT COOPERATES WITH BULGARIA

One of the earliest manifestations of Germany's cooperation with her Southeastern neighbors along constructive non-political lines is the newly instituted collaboration between the famous Kaiser Wilhelm Gesellschaft Research Foundation and the newly founded German-Bulgarian Institute of Agricultural Sciences in Sofia. The German institute has placed its vast store of research and similar information completely at the disposal of the Sofian institute in order to promote the development of economic and particularly agricultural resources in Bulgaria. It is anticipated that the results of this cooperation will contribute considerably both to the welfare of Bulgarian agriculture and that of all the countries adhering to the new European order.