one wing alone. Should a man try to fly with the wing of religion alone, he would quickly fall into the quagmire of superstition, while on the other hand, with the wing of science he would also make no progress, but fall into the despairing slough of materialism."

If in mountain regions, for instance in Switzerland, we climb a mountain in winter, the whole country is covered with thick dark impenetrable fog, which rises to a certain height and suddenly reaches a limit, so that, seen from above, it spreads out like a quiet ocean. In a given moment the body may stand in the fog, while the eve discovers the region of golden sunshine. Above the ocean of fog, crystalline castles of the high mountains rise, flooded by the rosy light of the sun, in holy majesty, in radiant purity, in eternal exultation. The material world has disappeared below us, heaven is round about us.

In this study the world seems to break up into two sides: the material world, in which science is interested, and the moral and spiritual world of religion. There is still at least one more fundamental side of the world; the esthetic world of art in the highest sense. Finally, we have with the world a direct bond of connection which is personal, every human language being an anthropomorphism on a large scale. But in spite of these different aspects of the world, a calm and quiet voice in our conscience whispers the unity of the world, the harmony of science and religion, the oneness of mankind

## THE CHARACTER AND ETHICS OF PARA-CELSUS.<sup>1</sup>

## BY JOHN MAXSON STILLMAN.

THE period of the late Renaissance and the Protestant Reformation is from many points of view of great human interest. Many influences were active in bringing about a re-adaptation of the spirit of man to changing conditions, a readjustment all the more violent as the bonds of tradition and authority had so long held the minds of men in the fetters of accepted dogmas. In art, literature, philosophy, politics, theology, many strong and bold thinkers arose. Men were becoming aroused to a new consciousness of their powers. Reacting from the medieval mental slavery the spirit of man became more independent and self-assertive. The

<sup>1</sup> [The following article contains two chapters of a book on Paracelsus which we intend to publish in the spring.—ED.]

domain of thought latest to share in this impetus was the field of natural science. After many hundreds of years since Greek and Roman science and art had been overthrown by barbarian conquests, during which period there existed comparative intellectual sterility and all learning was confined to the clerical orders and all independent thought had been jealously censored by the medieval Church, there had gradually developed both within and without the Church a restless movement toward question and criticism of accepted dogmas and authorities. There arose an ambition to reinvestigate and to test by reason the basis of knowledge and of faith. Naturally the beginnings of this movement took place in those domains of thought most clearly related to the scholarly thought of the time. ----in theology and in speculative philosophy. So long, however, as this movement was confined to the clerical classes, and its expression was confined to the medium of manuscripts in scholastic Latin, no great popular participation could occur, and the authority of the Church could in great measure control any infections of thought considered dangerously in conflict with accepted beliefs.

Nevertheless, the tendency toward independent thought could not be extinguished. It found outlet at first in other directions, in the revival of interest in the art and literature of the ancients, in the bursting forth of new forms of art, in painting, sculpture, architecture, and literature.

Two great influences had arisen during the fifteenth century to accelerate the intellectual awakening of Europe, a remarkable development of the universities, both in number and scope of teaching, and the invention of printing by movable metal types. These served to bring to a larger constituency the ideas of representative thinkers of the time.

Many other events were operative in breaking down the barriers of traditional conservatism. The discovery of America, and the exploitation of its wealth by Cortez and Pizarro, the discovery of the ocean route to India (1498), were opening new centers and currents of trade and commerce and new sources of wealth. The power of Spain was growing, the great German Empire losing coherency. The prestige of the Pope in temporal affairs was disputed. As the power of the emperor waned, the influence of the German princes increased. The German cities were gaining, the feudal barons diminishing, in authority, while the mercantile and middle classes were increasing in wealth and influence. The printing and circulation of the Bible also occasioned more wide-spread criticism of current theological thought, and was largely influential s' statis

in the development of schisms, which eventually resulted in the Protestant Reformation.

WILHELM VON BOMBAST, FATHER OF PARACELSUS. (Oil-painting, original in Salzburg.)

Theophrastus von Hohenheim, or Paracelsus<sup>2</sup> as he came to be generally called, was a true child of this period. He illustrates

<sup>2</sup> The name Paracelsus was adopted by Hohenheim in accordance with a common custom of writers of the time of using Latinized or Hellenized names. Thus Agricola (from Bauer), Melanchthon (from Schwarzerd), Œcolampadius (from Hausschein), all German contemporaries of Hohenheim.

at once its independence, its self-confidence, its boldness of thought as well as its confusion of old and new tendencies, its dependence



PARACELSUS.\*

\* After a life-size oil-painting in the State Gallery at Schleissheim near Munich. Artist and date uncertam. The likeness of Paracelsus's features to those of his father are remarkable in this picture. upon tradition and its struggle to free itself from that bondage. The lifetime of Paracelsus (1493-1541) fell in a period of the most fertile intellectual activity of the Renaissance. We may realize this if we recall that the span of his life touched the lifetimes of Michelangelo, Macchiavelli, Leonardo da Vinci, Ariosto, Rafael, Columbus, Copernicus, Thomas More, Erasmus, Luther, Melanchthon, Rabelais, Vesalius, Cardanus, and others whom these names will suggest, and who have left a distinct impress upon the development of civilization. The birth of Paracelsus took place in the year following the discovery of America, an event which with its consequences had much influence toward energizing the thoughts and stimulating the imagination of the generation that followed.

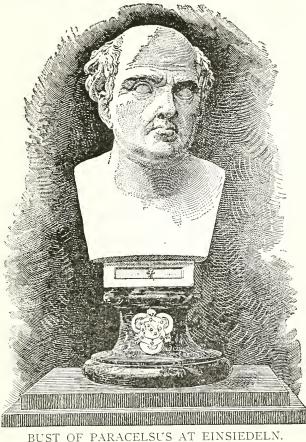
Through nearly four centuries the name and fame of Paracelsus have come down to us with something of the legendary haze that characterizes the age of fables. It is quite generally recognized that he left a distinct impress upon the theory and practice of medicine, though there have existed great differences of opinion as to the extent of that influence and whether, on the whole, it was beneficial or detrimental to the development of the science. It is admitted that he inaugurated a new era in chemical activity by diverting the attention of chemists from the vain aims of medieval alchemy to the application of chemistry to use in medicine. It is recognized that he introduced some rational ideas into the practice of surgery. Paré, sometimes called the father of modern surgery, a younger contemporary of Paracelsus, is said to have acknowledged his indebtedness to the earlier writer.<sup>3</sup> Erdmann in his History of Philosophy credits him with having inaugurated the era of the modern development of the philosophy of nature. English readers know that his life and thought inspired the Paracelsus of Robert Browning. Books have been written to show that to Paracelsus we must look for the beginnings of homeopathy. Goethe scholars have attempted to find in the works of Paracelsus much of the inspiration and material of Faust. Modern mystics have found in him a fertile source of the revelation of the occult in nature, while students are not wanting who have found in his doctrines the earliest recognition of the necessary basis of modern scientific method. Writers, moreover, there have been who have disputed all these claims.

As with his work so with his character and personality. By many of his disciples and critics early or modern he has been extolled as a skilled physician, a wise teacher, a great reformer, a sincere and pious and unselfish man. By many of his professional

<sup>3</sup> Cf. Stoddart, The Life of Paracelsus, p. 65.

opponents and by other critics he has on the other hand been characterized as an ignorant egotist, a charlatan, a drunken braggart, a superstitious visionary.

Evidently not all of this can be true. Somewhere in this confusion of contradictory estimates must lie the true Paracelsus, for



By Ildephons Kuriger.\*

he was no mythical personage and could have possessed no impossible combination of qualities.

There is, indeed, no great difficulty in understanding how it came about that the German-Swiss physician become thus credited with contradictory attributes. It was his fortune or misfortune to have become the originator of a school of medical practitioners,

\* Early 19th century, after drawings by Hirschvogel and Jenichen. The socle shows Paracelsus's coat of arms.

which came into influence mainly after his death and which for more than a century waged a bitter warfare with the older or Galenic school. Paracelsists and anti-Paracelsists supported or condemned the theory, practice, life, and character of the acknowledged leader of the newer school. Foolish and credulous adherents and admirers credited and spread tales and legends of his wonderworking and miraculous powers. Equally foolish but hostile or malicious antagonists invented or credited other fables to the detriment of the character and life of the founder of the despised and hated schism. For in the medical profession of the sixteenth and seventeenth centuries it was not with the weapons of modern science-with patient and critical experimentation-that differences of opinion were settled, but with the traditional weapons borrowed from the theologians and philosophers of the time, dialectics, the citation of authorities, while ridicule, slander, and abuse were effective arguments in the hands of disputants.

From the thus accumulated mass of fable and exaggeration it is not easy to free the reputation of Paracelsus, to discover and justly estimate his real personality and influence.

The sources of reliable information are of two kinds—such unbiased contemporary records of the life and work of Paracelsus as exist—and which are none too numerous—and the internal evidence of his own published writings. While his writings as collected by his editors are of great volume, their character is such as to offer much difficulty in their interpretation. Some of them were published during his life and under his supervision. Some of them were published from manuscripts in his own handwriting or by his amanuenses or secretaries, some edited from the lecture notes of his students, others were published from manuscripts of uncertain origin, and still others were manifestly either wholly or in part fraudulent interpolations. Great differences of opinion exist among Paracelsus scholars as to the degree of authenticity and as to the criteria of authenticity of the writings attributed to Paracelsus.

There exists a letter by a certain Bartholomæus Schobinger (dated April, 1576) which bears interesting testimony to the fact that even at that time in his opinion some alleged writings of Paracelsus were not authentic. He states, "Theophrastus, whom I knew very well, and who lived twenty-seven weeks in the house of my late brother-in-law, left behind him many books upon such things, in part occult (*verporgelich*) and a part of which he truly did not himself understand....There are also many books printed under his name which Theophrastus neither saw nor made. For I knew well the style of Theophrastus and his usage in writing."<sup>4</sup>

No great value, to be sure, can be attached to this general and unsubstantiated assertion, but it is nevertheless interesting as supporting the judgment of Huser, the editor and publisher of the first critical edition (Basel, 1589-91), as regards some alleged writings of Paracelsus.

Were we to accept the estimate of the character of Paracelsus which had gradually come to be accepted during the eighteenth century—that he was a coarse and ignorant charlatan—it would be a contradiction in terms to consider him seriously in the role of a teacher of ideals of morality and ethics.

Fortunately, however, the investigations of a number of thorough students of the life and times of Paracelsus justify us in accepting a very different judgment of his character and personality.

Egotistic, intolerant, and rude as he often shows himself to be, no authentic incidents have been adduced affecting his essential earnestness, integrity, or morality. His former secretary and student, Oporinus, indeed, in a letter written long after the death of Paracelsus makes the accusation of drunkenness against him, but this testimony has been discredited both on grounds of the circumstances which brought out the letter during the bitter anti-Paracelsan contest, and of the general character of the writer. Had there been a solid basis for the charge it is indeed hardly to be believed that greater use of this effective weapon would not have been made by his antagonists during his lifetime. Schubert and Sudhoff quote also from a work of J. Agricola, the statement of a certain Aegidius von der Wiese, a former student of Paracelsus, in which he says: "But this is true that Paracelsus enjoyed drinking, but on the other hand, when he had undertaken anything he scarcely ate nor drank until he had completed it and then, when he had the time, he became ordinarily merry ('gemeiniglich lustig')."

This statement may well stand against the similarly unsupported statement of Oporinus. The custom of his time and country would indeed have condoned a reasonable indulgence and even occasional excesses of that kind, though passages in Paracelsus's works are not few where he himself condemns drunkenness, and there is no positive evidence that his own life was inconsistent with such convictions.

Ignorance also cannot be charged against him. This charge seems to have been based largely upon the fact that he wrote and

<sup>4</sup> Schubert and Sudhoff, Paracelsusforschungen, II, pp. 140-4.

lectured in German rather than in Latin. But those who lived in his time and country doubtless well knew that his reasons for so doing were much the same that animated Luther who had set him the example. Moreover, his use of Latin in his own works, and his many allusions to Greek and Latin authors make it evident that he commanded the language in which they were written and possessed an extensive familiarity with their doctrines, though perhaps not a scholarly interest in their writings.

Whatever, however, may have been his shortcomings and limitations, there is no reason to doubt the earnestness or sincerity of his efforts to raise the standards of medical ethics, nor the essential piety of his own convictions.

We may, therefore, be justified in accepting his consistently and constantly reiterated ideals of the mission of medicine, and of the ethical standards of the medical practitioner as the sincere and typical utterances of a devoted missionary.

The condition of medical ethics at the time, if we may judge from expressions used by Erasmus, Agrippa, and Ramus, and as the history of medicine affords ample confirmation, was such as to justify the criticisms of Paracelsus and warrant his efforts at reform. That the persecution and contempt of the profession added an element of personal resentment and bitterness to his campaign is also manifest.

The character of the appeal of Paracelsus and its probable influence upon such medical students as were not too strongly prejudiced against him—and particularly upon the lay public, already it would seem somewhat suspicious of the conventional scholastic physician—may best be understood from his own utterances.

"Ye physicians, of what use to us is the name, the title, the university, if we possess not the knowledge (of medicine)? Knowledge makes the physician, not the name or the school. What is it for us if we appear great and make great display, if we have not the knowledge? Of what use that we are considered great by lords, cities, or countries—that we are given dignities and honors, and when the time of need arises, when we should be able worthily to repay the honors bestowed and we have not the knowledge? Whom do honors, the doctor's cloak and ring really adorn but those who deserve them by reason of their knowledge? The knowledge does not grow' in our heads, if we do not know the virtues contained in the herbs. The garden of knowledge is like a garden of trees; the arts are founded in experience and taught by nature. If the trees in the garden are mutilated up to the trunk, of what use is the tree? However tall and handsome it may be, if it lacks branches no fruits can come of it.

"I wish to admonish all physicians that they scrutinize, not me to whom they are hostile, but themselves and then they may judge



PARACELSUS WITH A BOON COMPANION.\*

me accordingly. I was grown in your garden and was transplanted from it into another. That is, I was trained in that garden where

\* Painted by an unknown artist, about half a century after Paracelsus's death, when the struggle between enemies and adherents of Paracelsus was at its height. The intention to stigmatize Paracelsus as a hypocrite is plain,

trees are mutilated and was no slight ornament to the University. But when the *Archeites* saw that that growth would lead me into vanity and show, it was brought about that I should be transplanted and should be planted in another garden. For just as a good fruittree is dug up and a linden planted in its place, so it takes place there (in the universities). For there the physician's fruitfulness is taken from him and he is made into a feast for the eyes like the linden-tree, but his fruits disappear. This transplanting was brought about for this reason that after so much mutilation I should be planted in another garden, that is that I should enter into the paths of experience and avoid that mutilation."<sup>5</sup>

Evidently his attacks upon the practitioners of his day brought forth from his opponents accusations of lack of professional courtesy, for he feels called upon to defend himself against this charge.

"It should not appear strange to any one that I cannot praise selfishness in medicine, because I know how harmful it is, so that the art of medicine has become falsified by it and has been led astray into a show and a bargaining, so that nothing can take place without falseness which leads to corruption in all things. The physician must not be founded on selfishness but in love....I, for my part, am ashamed of medicine that it has so fallen into deception. There is no abandoned hangman, bawdy-house keeper, or dog-killer that will not sell his human or dog's fat for money and claim to cure all diseases with it, and that even when his conscience tells him that the treatment of one disease only is permitted to him. But because of their greed they take everything that comes their way. Therefore there have come into medicine all the lazy and wicked vagabonds, and they sell their remedies whether they suit the case or not. Whoever gets money in his purse has the reputation of being a good physician.... They do not care that it has come to them undeserved, only so that it is there.

"It is also a doctor's custom wherever the law permits it whether rightly or not I do not know—that a visit is worth a gulden whether earned or not....To have pity for another and to fulfil the law of love will not become a custom or use: they wish to have no law any more but to take—take, whether it is right or not. So they deck themselves with rings and chains of gold; so they go about in silken clothing and proclaim to all the world their open disgrace, which they consider as an honor and as proper for a physician: so ornamented like a picture they strut about—it is an abomination in the sight of God....Medicine is an art which should

<sup>5</sup> Chir. Bücher (Fol. ed., 1618), p. 309 ("Spitalbuch," Preface).

be employed with great conscientiousness and great experience and in the great fear of God, for he who does not fear God he murders



PARACELSUS BY RUBENS(?) Brussels.\*

and steals continually, and he who has no conscience has also no shame in him....I trust I have defended myself from having any-

\* Hardly by Rubens himself, but by one of his pupils. The portrait is a very good copy of an earlier one in the Louvre at Paris, at present supposed to have been painted by Scorel in 1517. thing to do with the pseudo-medici, or from doing anything to please them: I would rather speed the axe to be laid at that tree. If it depended on me it would not be long delayed."<sup>6</sup>

In a similar vein he elsewhere says:

"They have brought things to such a pass that all men flee from medicine and hold it all as knavery and swindling. They have so deceived people with their arts that a common peasant or a Jew commands more credence than they. And, indeed, they can do more than the doctors. Is it not a crime and a shame when a city physician (*Stadtartzt*) is appointed in a city, and the sick flee from him because he cannot help them and must let them lie, and others who have not studied must assist them?"<sup>7</sup>

His exalted ideal of the mission of medical science and of the true physician finds frequent utterance throughout his writings, as the following examples may illustrate.

"For God wills that man be truthful and not a doubter and a liar; he has created truth and not lies, and ordained and established the physician in the truth and not in lies. The truth is then his integrity. Such is the physician's integrity that he shall be as steadfast and as truthful as the Apostles of Christ, for in God's sight he is not less."<sup>8</sup>

"As now it is the physician alone who can most highly prize and praise God, he must have the greatest knowledge. And why?— Who is it except the physician that can know man, what he is, and how great God has made him? He can make known the works of God, how noble the universe is, and how much nobler is man, and how one proceeds and is born from the other (i. e., the macrocosm and microcosm). He who does not know this must not boast himself a physician."<sup>9</sup>

His ideals of service of the physician toward the poor and needy may be illustrated by the following extract from the preface to his "Hospital-Book."

"Of what use is it if I write much about the sick and the poor and of how their health is to be secured and do not also admonish the rich? For no good can happen to the poor without the rich. Both are bound together as with a chain, and as little may any chain suffer a break as the chain which binds together the rich and the poor. Learn, ye rich, to recognize these chains. For if ye

<sup>&</sup>lt;sup>6</sup> Op. fol., Strassburg, 1616-13, I, pp. 259-261, "Die fünfte Defension."

<sup>7</sup> Op. fol., I, p. 61, "Paramirum."

<sup>&</sup>lt;sup>8</sup> Op. fol., I, p. 227, "Paragranum."

<sup>&</sup>lt;sup>9</sup> Op. fol., I, p. 81, "Paramirum."

break your link, ye not only break the chain but like the broken link ye will be cast aside. Why, then, do you try to make yourselves free from the poor and to shut your help from them? Just as if you should take some links from a chain and make it too short so, without the poor, would your path be too short to reach to the Kingdom of Heaven, and you would not attain the goal for which the chain was given you. Learn then, both rich and poor, that all your diseases on earth lie in one single hospital, and that is the hospital of God....

"Do not let yourselves be discouraged because with many of the sick, neither help nor faith, nor art, nor benevolence, nor anything will help them :—it is so ordained for them for reasons elsewhere sufficiently described....Forget not your truth, despair not and be not discouraged, but continue in love. Despise not your art but make yourself skilled in it, that you may not fail in the truth and understanding of medicine, but that any failure may lie with nature. Be gentle and merciful and judge of your charities as to what aim, use, and fruitfulness they may arrive, and trust nothing to unreason."<sup>10</sup>

Similar exhortations and expressions of his strong convictions upon the mission of the true physician are scattered numerously through nearly all his writings. Evidently the purification of medical ethics and practice was one of the dominant aims of his reform campaign.

## THE COSMIC HEMORRHAGE.

## BY LAWRENCE PARMLY BROWN.

Is mythology the red hue of the morning and evening skies is sometimes attributed to blood; and this mythic blood is sometimes conceived as mixed with the eastern and western celestial waters, which are associated occasionally with the corresponding divisions of the earth-surrounding ocean-river. The evening sky was naturally conceived as red with the blood of the slain or injured sun-god, or with that of some mythic figure connected with him; while the reddened or bloody morning sky was associated either with the death of the conquering sun-god's enemies, or with the birth of the solar child.

In the *Book of the Dead*, Horus cuts off the heads of the <sup>10</sup> *Chir. Bücher*, pp. 311-312, "Spitalbuch."