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THE REFORMER OF MEDICINE.

BY

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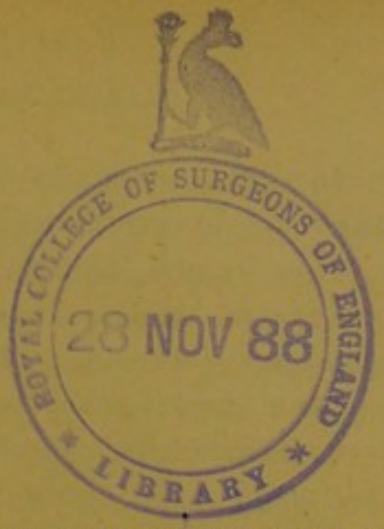

XLIX.

PARACELSUS: THE REFORMER OF MEDICINE.

By EDWARD BERDOE, M.R.C.S., L.R.C.P.E., &c.

Read at the Sixty-first Meeting of the Browning Society, Friday, October 26, 1888.

Let us go back in thought to the middle of the fourteenth century, which saw the birth of the period known as the Renaissance or Revival of Learning, and which preceded the dawn of the Reformation. The early part of the century was the glacial period of European thought, all real intellect was enchained in "thrilling regions of thick-ribbed ice." The religious condition of Europe at this time is familiar to every student of history. It is with science we have to deal this evening. For nearly two thousand years the philosophy of Aristotle had reigned supreme over all Europe. Hallam tells us that "what the doctors of the Middle Ages had been in theology, that was Aristotle in all physical and speculative science, and the Church admitted him into an alliance of dependency for her own service." From the domination of this system, which kept the human mind in bondage, there seemed no escape. Men had grown to love their thraldom. But this philosophical deity was not the real Aristotle, but Aristotle converted to Christianity and dressed in a monk's frock. The world had worshipped the sage as a Hebrew, then as a Moslem, now as a Christian and a pedant. Knowledge in the schools "revolved like a squirrel in a cage;" henceforth, after two thousand years of turning about upon itself, it was to progress.

If religious thought was restricted and controlled, science was bound hand and foot and hidden in darkest dungeon. Pietro of Abano, the greatest philosopher and physician of the preceding century, was so successful in curing diseases, so skilful a builder and astronomer, that he was held to be a wizard, and condemned to be

burnt alive. This was the common reward of any who ventured to take a single step forward on the path of human progress.

Less known than the martyrs of religion, the noble army of the martyrs of science have perhaps a greater and more lasting claim upon our gratitude. The former found in their faith itself its own supreme reward, they were upheld by its transcendent support and were sustained by supernatural consolations. The martyrs of science had nothing to cheer them but the sad smile of truth and the consciousness that their vindication was ultimately secure. The Reformation was but a portion and that by no means the most important part of the great Renaissance; it was a natural outgrowth of the Revival of Learning. This may be said to have commenced in 1453, when Constantinople fell into the hands of the Turk. "The new learning now began to awaken free thought," says Mr. Symonds, "it encouraged curiosity, and prepared the best minds of Europe for speculative audacities from which the Schoolmen would have shrunk, and which soon expressed themselves in acts of cosmopolitan importance." The great melting period of the glaciers was from 1492 to 1500. Columbus discovered America, and the passage to India was found. Printing was growing into vigour, and the art of war being revolutionized by the invention of gunpowder, and the discoveries of Copernicus had effected no less a revolution in the science of cosmology. Luther was born in 1483. Ten years later Paracelsus, the Luther of medicine and of chemical science, was born at Einsiedeln, near Zurich. It is not hard to recall these Reformation scenes as one stands on the Rhine bridge at Basle, watching the tumultuous flow of the river, itself formed by the melting of the ice and snow of the Alps above. We naturally think as we stand there of another breaking up of ice, and the source and progress of another river taking its rise in these lands. Close by the Rhine we see the cathedral in which are the tombs of Erasmus and Œcolampadius and other valiant fighters for the truth; but the Browning student's thoughts will be centred on the university buildings close by the bridge. At this university Paracelsus—the first teacher be it remembered who ever held a chair of physical science—worked and taught in 1526; here he was nicknamed "Luther Alter"—the other Luther. Up to the time when in 1835 Mr. Browning wrote his poem *Paracelsus*, the world had nothing but a distorted image of the hero, which was in fact little better than a caricature drawn by his bitter enemies. Mr. Browning's vast research amongst contemporary records has enabled him to put together—like Professor Owen with his prehistoric bones—a consistent and faithful figure of the real man. When Mr.

Browning says in the notes appended to the poem that the liberties he has taken with his subject are very trifling, we now know this to be the fact because we have access to the documents which confirm his estimate of the hero's life. In all history it would be difficult to find another character which has been so slandered and misrepresented as that of Paracelsus. He was the son of a physician, William Bombast von Hohenheim, who taught him the rudiments of alchemy, surgery, and medicine; he studied philosophy under several learned masters, chief of whom was Trithemius of Spanheim, Abbot of Wurzburg, a great adept in magic, alchemy, and astrology. Under this teacher he acquired a taste for occult studies, and formed a determination to use them for the welfare of mankind. He could hardly have studied under a better man in those dark days. Tritheim himself was well in advance of most of the teachers of his time. As it is impossible to place ourselves in full sympathy with Mr. Browning's hero unless we have some idea of the perplexing and much misunderstood subject of alchemy, I may be pardoned if I make a short quotation from a book of this same Johannes Trithemius printed at Passau in 1506. He says: "The art of divine magic consists in the ability to perceive the essence of things in the light of Nature, and by using the soul-powers of the spirit to produce material things from the unseen universe (A'kasa), and in such operations the Above (Macrocosm) and the Below (the Microcosm) must be brought together, and made to act harmoniously. The spirit of Nature is a unity, creating and forming everything, and by acting through the instrumentality of man it may produce wonderful things. Such processes take place according to law. You will learn the law by which these things are accomplished if you learn to know yourself. You will know it by the power of the spirit that is in yourself, and accomplish it by mixing your spirit with the essence that comes out of yourself." By this we see that Tritheim was of the theosophists or mystics, for they are of the same class, and probably, in their German form, derived their origin from the labours of Tauler of Strasburg, who afterwards, with "the Friends of God," made their headquarters at Basle. The mysticism which is so dear to Mr. Browning, and which finds its highest expression perhaps in the poem which we are considering, is not therefore out of place.

The poem opens with a touching scene where the hero is parting from his beloved friends, Festus and Michal, on the eve of his departure from home to wander, as was the custom, from university to university as a poor scholar "aspiring to know."

His self-will, his dissatisfaction with his teachers, his mysterious promptings to gain knowledge in some original way, lead his friends, who represent the conservative type of mind, to implore him to stay at home.

> "Stay with us! Cast those hopes away
> And stay with us!
> Man should be humble: you are very proud:
> And God, dethroned, has dreadful plagues for such!"

But Paracelsus, though protesting that he is no misanthropist, declares that his "vast longings" urge him forward. Sorcery and magic do not content him as the means of penetrating the secrets of Nature; he will leave the schools and henceforth be taught of God,

> "Who summons me to be His organ."

And so leaving "the region of abstractions, fictions, visions, spectral hopes and fears, in the midst of which the intellect," as Mr. Symonds says, "somnambulistically moved upon an unknown way," he goes forth from the little town of Einsiedeln, following the star gleam of truth, and hearing what he thinks to be the voice of God—because having heard it, go he must:

> "Be sure they sleep not whom God needs,"

he says.

"Why not stay here and learn?" they ask; "converse with the mighty dead, fill out their unfulfilled careers, take up their unsolved problems. Snatch the torch from the tired runners and bear it onward! You will have no books in the desert, you will find no footprints in the caves where you will be the first visitor! In the ruined cities where wisdom would not stay, in the ravaged towns which renounced her,"

> "Rejecting past example, practice, precept,
> Aidless 'mid these he thinks to stand alone!"

Yes! He accepts all that: he says,

> "I seemed to long
> At once to trample on, yet save mankind,
> To make some unexampled sacrifice
> In their behalf, to wring some wondrous good
> From heaven or earth for them, to perish winning
> Eternal weal in the act; as who should dare
> Pluck out the angry thunder from its cloud,
> That, all its gathered flame discharged on him,
> No storm might threaten summer's azure sleep."

In these prelusive notes we have Mr. Browning's overture to the drama of *Paracelsus*: *Hero and Martyr of Science.* We shall find all these recur again and again in the harmony to follow.

Mr. Ruskin somewhere divides mankind into three orders of beings: "The lowest, sordid, and selfish, which neither sees nor feels; the second, noble and sympathetic, but which sees and feels without concluding or acting; the third and highest, which loses sight in resolution and feeling in work." To this latter class did Paracelsus belong. "I go to prove my soul!" "I shall arrive!" he cries. When a man of this sort comes to feel that way, go forward he must. As Carlyle says: "Some arrive; a glorious few; many must be lost, go down upon the floating wreck which they took for land. Nay—Courage! These also, so far as there was any heroism in them, have bequeathed their life as a contribution to us, have valiantly laid their bodies in the chasm for us; of these also there is no ray of heroism *lost*, and on the whole, what else of them could or should be 'saved' at any time? Courage, and ever forward!"

We next see Paracelsus in the house of a Greek conjuror at Constantinople. Here Paracelsus *attains.* It is nine years since he took the diver's plunge for the pearl. Has he secured it? solved the mystery of being, reached the grand secret of life? He had not even found its elixir, nor the philosopher's stone, nor the universal solvent. He had discovered modern medicine and the science of chemistry; but though it cannot be said he was unaware of the great consequences which must follow these discoveries, it is certain that he underrated them in comparison with what he had hoped to have achieved. When he left his home he went to study in the mines of the Tyrol. That was seeing his way without much circuit first; there he was in the region of fact; if he extracted metals it must be with pick and shovel instead of cabalistic formulæ. No coaxing and wheedling Nature there, but a fight and a struggle for her treasures. We are told that he learned mining and geology and the use of metals in the practice of medicine. "I see," he says, "the true use of chemistry is not to make gold, but to prepare medicines."

In his sermon on the world's unknown benefactors, Cardinal Newman asks, "Who gave us the use of the valuable medicines for the healing of disease?" and he implies that the inventors are mostly unknown. We shall see what Paracelsus did in this direction. He is rightly termed "the father of modern chemistry." He discovered the metals zinc and bismuth and hydrogen gas, and the medical uses of many minerals, the most important of which were mercury and antimony. He gave to medicine the greatest weapon in her armoury

—opium. His celebrated azoth some say was magnetized electricity, and others that his *magnum opus* was the science of fire. He acted as army surgeon to several princes in Italy, Belgium, and Denmark. He travelled in Portugal and Sweden, and came to England; going thence to Transylvania, he was carried prisoner to Tartary, visiting the famous colleges of Samarcand, and went thence with the son of the Khan on an embassy to Constantinople. All this time he had no books. His only book was Nature; he interrogated her at first-hand. He mixed with the common people, and drank with boors, shepherds, Jews, gipsies, and tramps, so gaining scraps of knowledge wherever he could, and giving colourable cause to his enemies to say he was nothing but a drunken vagabond fond of low company. He would rather learn medicine and surgery from an old country nurse than from an university lecturer, and was denounced accordingly and—naturally. If there was one thing he detested more than another it was the principle of authority. He bent his head to no man. Surely never was there a man with such a wolf-hunger for facts of his own acquisition. And now, estimating all his labours at so low a value, he can go on no longer, and we find him in the magician's house in Constantinople, in search of the universal panacea, if you please. He is in despair, thinks he has done nothing. The process is too slow for him, though we know he had already done so much. He will learn now by supernatural means, diabolical perhaps, because the process is quicker. He must have rest too for his throbbing pulses and gnawing heart. Life and strength are going, he has atrophied his once human heart by purging it of love, and has subdued his whole life to the one purpose to know. Has he been fighting sleep for death's sake perhaps? Is he losing his reason?

> "'God, thou art mind! he cries;
> Crush not my mind, dear God.'"

He learns the secret; he is told that he has missed his life's end by refusing Love, as another lost one has missed his by refusing Knowledge; they two are "halves of one dissevered world."

Love saves others as well as one's self. "He alone," says a mystical writer, "who loves, has and is Christ, having in virtue of his love the 'Dissolvent' and the secret of 'Transmutation' in respect of the whole man. Krishna has his Arjun, Buddha his Ananda, Jesus his John—terms denoting the feminine and tender moiety of the Divine nature." He has learned that true knowledge does not consist in accumulating it for its own sake but in distributing its fruits in

loving work for men. Henceforth the ideal, must give place to the actual service as the first condition of the highest internal illumination. To what extent are we to consider this scene at Constantinople historical? The poet's purpose is easy enough to trace. The reformer, the truth-seeker, the cold speculative philosopher has somehow to be brought into sympathetic relations with his fellow-men; he has burned up his human affections in his furnaces, and has cast away as dross his human heart promptings. As love cannot reach him otherwise, a direct revelation must be vouchsafed to him. Mr. Browning has to convert his ascetic scientist (who has only given up gold-making and the search for the philosopher's stone because he sees that a wider and simpler chemistry promises better results) into the successful healer, the blessed physician of the poor and the giver of health to princes, and he does not see a better way of converting him than by revealing the Gospel of Love to him in a magician's house. There does not appear to be any historical basis for this scene between Aprile and Paracelsus. The real Paracelsus, as we find him in his works, was full of love for humanity, and it is much more probable that he learned his lesson while travelling, and mixing amongst the poor and wretched, and while a prisoner in Tartary, where he doubtless imbibed much Buddhist and occult lore from the philosophers of Samarcand, than that anything like the Constantinople drama was enacted. Be this as it may, we know that we have abundant evidence in the many extant works of Paracelsus that he was thoroughly imbued with the spirit and doctrines of the Eastern occultism and was full of love for humanity. A quotation from his *De Fundamento Sapientiæ* must suffice: "He who foolishly believes is foolish; without knowledge there can be no faith. God does not desire that we should remain in darkness and ignorance. We should be all recipients of the divine wisdom. We can learn to know God only by becoming wise. To become like God we must become attracted to God, and the power that attracts us is love. Love to God will be kindled in our hearts by an ardent love for humanity, and a love for humanity will be caused by a love to God." It would not have been so dramatic, but I would rather, I confess, have seen Paracelsus slowly working this out for himself amongst his peasants and miners and fellow-soldiers and prisoners, than having it revealed to him as to Saul at Damascus by miracle. I am not quite sure though that this is all that Mr. Browning means us to learn by this scene. May it not be that the great Reformation of the sixteenth century is composed of the art-loving, sensuous Aprile-like Renaissance or revival of polite learning and the scientific awakening

which took place in Germany after Luther's reformation? Lorenzo de Medici might in this connection be the Aprile, and Paracelsus the representative of the scientific spirit. I merely throw this out as subject for discussion. Lorenzo seems very well indicated by the speech of Aprile beginning: "I would love infinitely, and be loved."

In the year 1525 Paracelsus went to Basle, where he was fortunate in curing Froben the great printer by his laudanum when he had the gout. Froben was the friend of Erasmus, who was associated with Œcolampadius and soon after, upon the recommendation of Œcolampadius, he was appointed by the city magnates a professor of physics, medicine, and surgery, with a considerable salary; at the same time they made him city physician, to the duties of which office he requested might be added inspector of drug shops. This examination made the druggists his bitterest enemies, as he detected their fraudulent practices; they combined to set the other doctors of the city against him, and as these were exceedingly jealous of his skill and success, poor Paracelsus found himself in a hornet's nest. We find him then at Basle University in 1526 the earliest teacher of science on record. He has become famous as a physician, the medicines which he has discovered he has successfully used in his practice; he was now in the eyes of his patients at least,

> "The wondrous Paracelsus, life's dispenser,
> Fate's commissary, idol of the schools and courts."

In the poem he is once more conversing with his friend Festus, who is congratulating him. But he declares that he has not been successful and really is at heart most miserable, his very popularity galls him, he feels he is but a zany in a show, public flattery he despises, the incense of the ignorant mob he has never sought, he knows that all this is lowering his mental tone, he is being converted into a quack against his will. Festus reminds him that death retires before his presence, that his skill has often availed to raise "the shattered frame to pristine stateliness," that pain-racked men by his blessed opiate may swoon into a sea of bliss—that he is ordained to free the flesh from fell disease as Luther frees the soul. Men say it is done by magic and such folly; it is however done! Arrogant? Yes, he admits that men may say that of him. He did begin his lectures at Basle by lighting some sulphur in a chafing dish and burning the books of his great predecessors in the medical art, Avicenna, Galen, and others, saying: "Sic vos ardebitis in gehennâ." He boasted that he had read no books for ten years, though he protested that his shoe-buckles were more

learned than the authors whose works he had burned. Yet notwithstanding these sentiments he is not inclined to see anything but defeat, when after aiming at comprehending God Himself, His works, and all His intercourse with the human mind, he finds himself with life passing away and strength failing, a mere lecturer to "beardless boys, and bearded dotards worse."

It must have been a wonderful spectacle when this new teacher took his place before his pupils. The benches occupied hitherto by a dozen or two of students, were crowded with an eager audience anxious for the new learning. Literature had been exhumed many years before, and now it was the turn of Science! Fancy it, students in the nineteenth century, what honour to have been seated on one of these groaning benches assisting at the disentombment of physical science! Leaving the morbid seclusion of the cloisters men had given up dreaming for inquiry, and baseless visions for the acquisition of facts. This was the childhood of our science, and its days were bright with the poetry of youth. "You Italy, you Dalmatia, you Sarmatia, Athens, Greece, Arabia and Israel! Follow me—come out of the night of the mind!" he cries. It is a sight to arouse our enthusiasm to see in the early dawn of our modern science this man standing up alone to pit himself against the whole scientific authority of his day. He rises from the crucibles and fires where his predecessors had been vainly seeking for gold and silver, ever and again pretending to have found them and always going empty-handed to a deluded world, henceforth he says his alchemy shall serve a nobler purpose than gold seeking, it shall aid in the healing of disease. He casts aside the sacred books of medicine which have been handed down the ages by his predecessors; destroying them, he declares, with an earnestness which is less tinged by arrogance than by conviction, that these men had been blind guides, that he alone has the clue of the maze, and he forsakes all to follow truth though she lead him to death. In his generous impulse to serve mankind he has spoken harshly of his opponents. They would not have helped him any way. He was above them, they could not understand him, so they hated him, and he scorned them. As too often happens to such heroes, he forgot the love of his neighbour in his love for mankind.

And here we cannot help pausing to ask how it was that the art of medicine had failed to make any progress whatever from the earliest Christian times? Paracelsus found his pupils holding fast by the teachings of the School of Salerno founded by the Arabs, and there seems no ground for supposing that the healing art had made the slightest progress in Europe from the foundation of that school in 1150

except perhaps in that branch known as pharmacy. For this stagnation the Roman Church was chiefly to blame. She enjoined the care of the sick no doubt, but she did nothing to further the progress of medical science; the principal remedies were prayers and relics. Not that there was any scarcity of doctors, there were plenty of Greek, Arabic, and Jewish physicians, but none but rich and powerful persons dare call in their services for fear of excommunication. Benedict IX. and Urban II. in the eleventh century ordered that clerical physicians should only practice within the walls of their monasteries. Neither prelates nor any of the superior clergy were permitted to practice in any branch of medicine. The ignorant and often vicious lower clergy were allowed to act as physicians, but even they were forbidden to engage in surgery for the expressed reason that the church abhorred the shedding of blood. Teeth-drawing and bleeding were relegated to the lay brethren who were the servants and the barbers of the community, and no doubt from this circumstance we derive the title of barber-surgeons, the extremely interesting history of which body has just been published in the "Life of Vicary," where the story of the foundation of Bartholomew's Hospital is told by our president Dr. Furnivall and his talented son Mr. Percy Furnivall, who is a distinguished pupil of that school of medicine; these gentlemen have done a great service to the history of medicine in England by their labours in that great work. Why did the Church oppose the study of medicine? The answer is simple. In those days the Roman Catholic Church was the Bastille of souls, and everything which tended to withdraw the veil of mystery from the secrets of life she considered had a tendency to destroy religion. The Church could not afford to have the secrets of life explained. Everything which tended to account for the processes of being, and the causes of health and disease, was so much withdrawn from the privileges of the Church. Paracelsus had burst his bonds, had in some marvellous manner come to see that a clean sweep must be made of all this Arabian, Kabalistic, monastic rubbish before he could begin to teach anything. On the day that he stood up before that audience at Basle University he was to write the first lines of the principles of rational medicine. Do you grudge him a clean slate? Away then with "Ætius, Oribasius, Galen, Rhasis, Serapion, Avicenna, Averröes," and the other blocks. To the influence of blessed relics, theological conjuration and all the ridiculous and often disgusting remedies of his professional brethren he had opposed his scientific common sense method of dealing with disease. He had saved the life of a prince who was at first grateful, but when the monks had pointed out that

a want of respect had been shown to the Blessed Virgin's pocket-handkerchief, and the abbey where it was kept had been defrauded of its dues by this indecently hasty cure, the convalescent prince had to prove his orthodoxy by burning a dozen heretics straight away in the public square, and he would doubtless have burned Paracelsus too for sorcery had he not escaped from his power. They had sent him diplomas, he tells his friend Festus, and presents from Germany, France, and Italy, and what he valued more than these: he had received a letter from Erasmus, whose friend Frobenius he says he had raised from the dead. But all these things are a poor solace at best, and he confesses that a host of petty, vile delights now supply the place of his dead aims, "as sickly fungi spring from the roots where tall trees used to flourish." Then his first desire infinitely to know comes back in all its force, and he declares

> "Would God translate me to His throne, believe
> That I should only listen to His word
> To further my own aim!"

He has fallen low, but though he cannot soar he will not crawl; he knows that he precedes his age, he has bartered sleep in vain.

They tell him there is another world to remedy the ills of this, but he bursts out:

> "Another world!
> And why this world, this common world, to be
> A makeshift, a mere foil, how fair soever
> To some fine life to come?
> * * * * * * * *
> No, no;
> Love, hope, fear, faith—these make humanity;"

In 1528 we find him at Colmar in Alsatia. He has been driven by priests and doctors from Basle; he says woefully:

> "Poor Paracelsus is exposed
> At last; a most egregious quack he proves."

He had been called to the bedside of some rich cleric who was ill, he cured him, but so speedily that his fee was refused. Though not at all a mercenary man (for he always gave the poor his services gratuitously) he sued the priest, but the judge refused to interfere, and Paracelsus used strong language to him, and had to fly to escape punishment. We must not be too hard upon the canon. Disease was treated with profound respect in those days, and great patients liked to be cured with deliberation and some ceremonial. Heart-

broken and indignant at the world's ingratitude Paracelsus now declares he will moderate his aims, abandon his vast ambitions, live the common life, cast out his lovely fancies and earn his grave, for mind is only disease and natural health is ignorance. He is desperate—he chaunts the song of the men who "clung to their first fault and withered in their pride"

The closing scene of the drama is laid in a cell in the hospital of Salzburg. It is the year 1541, his age but forty-eight, and the divine martyr of science lies dying. Recent investigations in contemporary records have proved that he had been attacked by the servants of certain physicians who were his jealous enemies, and that in consequence of a fall he sustained a fracture of the skull, which proved fatal in a few days. There is nothing in the whole range of our literature grander or more beautiful than this death-scene as painted by Robert Browning. His faithful Festus is watching the weary night long by the sinking champion of the truth; he prays for his recovery, for his salvation.

> "Save him, dear God; it will be like Thee: bathe him
> In light and life! Thou are not made like us;"

He declares that,

> "Come weal or woe
> His portion shall be mine. He has done well.
> I would have sinned, had I been strong enough
> As he has sinned. Reward him, or I waive
> Reward! If thou canst find no place for him,
> He shall be king elsewhere, and I will be
> His slave for ever. There are two of us."

Turning to the dying hero he says,

> "God shall take Thee to his breast, dear spirit,
> * * * * * * * *
> And here on earth
> Shall splendour sit upon thy name for ever—
> * * * * * * * *
> Thee—the master mind,
> The thinker, the explorer, the creator!"

The dying man sits up, must speak, must sing his death song. Once more he must wear his scarlet fur-lined robe, with his chain about his neck, and his trusty sword Azoth in his grasp. He reviews his life, owns his sins and his failure, owns too his pride and his unspeakable despair, laments that he had misunderstood his place and

mission. Still he protests that he never fashioned out a fancied good distinct from man's,

> "God is glorified in man,
> And to man's glory vowed I soul and limb;
> Afterwards they will know me."

Such is Mr. Browning's study of the Real Paracelsus, the Medical Ishmael. He was buried in the churchyard of St. Sebastain at Salzburg, but in 1752 his bones were removed to the porch of the church, and a monument was erected to his memory by the archbishop. When his body was exhumed it was discovered that his skull had been fractured during life. How different the story is from the previous caricatures in our biographical dictionaries a very little research will show. "Charlatan," "drunken empiric," "conjuror," "sorcerer," "quack," "extravagant impostor." This is how he was described before Mr. Browning wrote. He could read between the lines of his history, and was the first in our time who refused to accept the common story as true. If you refer to the article "Alchemy" in the last edition of the *Encyclopædia Britannica* you will find that men of science now recognise Mr. Browning's great poem as a far truer estimate of the man's work than any we had previously. He had errors, but they were mainly the fault of his time, his virtues were his own. Was he a charlatan? Men have said so while appropriating his discoveries and passing them off as his own. Charlatans are not often great discoverers or inventors. A drunken empiric? because he frequented the society of common people instead of watching his alembic in a lonely tower. His profession did not at all approve of his delivering his lectures in the vulgar tongue in place of the Latin language, but this was part of his noble plan, and was the beginning of free thought in science, he laboured for humanity, not for a profession. He cured poor people without taking his fees; this was bitterly resented by his brethren. Medical men did not then do as much work for charity as they happily do now. He is gravely charged with being an empiric, as if medicine even at the present day was not largely empiricism. Sir Morell Mackenzie says as much. But Paracelsus did more for scientific medicine than perhaps any of its students. True he rejected anatomy, but then he made the grand discovery that Nature was sufficient for the cure of most diseases. He was a Neo-Platonist, and considered the mind had more to do with disease than the body. There was much truth in that. "Imagination is the cause of many diseases; faith is the cure for all," he says. Just this doctrine is being taught

now largely in America with some success, under the name of "Christian science healing."

Mr. Browning seems too readily to admit the charge of drunkenness so persistently brought against his hero. In the 4th Scene he makes him accuse himself in the strongest terms. He speaks of his "heart, which God cursed long ago," as now a pet nest for devils. He speaks of his "degradation," of being "half stupid and half mad." We saw how in the previous scene, he spoke of the host of petty, vile delights which like fungi had usurped the place of his dead aims. This is dramatic, and it has some historical colour no doubt. Mr. Browning even gives us a note to the effect that "his defenders allow the drunkenness." But we ask is it reasonable? We know how this man's character has been misrepresented in so many ways—we can see that much of his so-called arrogance was inspiration, and inspiration so far beyond the conception of the narrow, bigoted, grossly ignorant, monkish minds about him that the inspiration of genius was probably mistaken ofttimes for that of wine. We know how many charges his secretary Oporinus trumped up against him. May he not have largely exaggerated this account of his lecturing in a state of intoxication day after day? Is it reasonable? Consider the work the man did. Here we have some 106 treatises in Medicine, Alchemy, Natural History and Philosophy, Magic, and other subjects, written within a period of time covering fifteen years. He had a great practice and crowds of pupils: was a constant and persistent persecutor of Nature for the purpose of extracting her secrets; how could he have accomplished a work the value of which we are now only just beginning to appreciate, if he lived in that state of constant intoxication which Mr. Browning says his defenders admit? We may guess how much of all this is true by remembering what the Catholic historians have said of Luther and indeed of all the Reformers. He was called an "ignorant vagabond." In truth he was no lover of books, and despised mere university learning. "The book of Nature," he affirmed, "was that which the physician should read, and to do so he must walk over its leaves." We pore over books now till our faculties of observation become atrophied. Paracelsus' library, we are told, consisted of a Bible, St. Jerome on the Gospels, a volume on Medicine, and seven manuscripts. So as he travelled so much and read so little, what could the musty old pedants who spent their lives amidst the disputations of the Schoolmen consider him but an "ignorant vagabond"? What are we to say about his magic and astrology? There are two kinds of magic—black and white. The former is devil worship, the latter is synonymous with occult science, or divine

science as it was sometimes called. Mr. Browning makes his hero abjure the "black arts" and the aid of "sullen fiends" and "fallen spirits" in the outset of his career; and though we find him soon after inquiring in the conjuror's house, it does not appear that the poet has sent him thither to learn anything from the devil, that would certainly be at variance with anything we can discover in his authentic works.[1] By magic in his writings we are to understand, he says, "the highest power of the human spirit to control all lower influences for the purpose of good." He talks a great deal of superstitious nonsense in this connection, but there is no evidence of his dealing with the powers of darkness as was of course charged upon him by the Church on account of his remarkable success. He was an alchemist, and alchemy stands in the same relation to modern chemistry that astrology does to astronomy. We should treat neither with contempt, they have too great a claim upon us for what they gave birth to. And here I must be permitted to touch briefly on the subject of the cosmology of Paracelsus. I dare say some of us have thought when reading that wonderful death song which the poet puts into the mouth of his hero that there was in it a great deal more of Mr. Browning than of Paracelsus. I confess I have often thought that myself, but a more careful study of the works and opinions of this thinker and explorer has convinced me that these lovely lines are quite in accord with what we may expect the real Paracelsus to have said. To fully understand the purport of the lines where the poet speaks of man as

> "The consummation of this scheme
> Of being, the completion of this sphere
> Of life; whose attributes had here and there
> Been scattered o'er the visible world before,
> Asking to be combined, dim fragments meant
> To be united in some wondrous whole,
> Imperfect qualities throughout creation,
> Suggesting some one creature yet to make,
> Some point where all these scattered rays should meet
> Convergent in the faculties of man,"

and to see the reasonableness of thus making Paracelsus talk evolution, we must know a little of his cosmology and of his curious

[1] He seems to have had a very poor idea of the devil's power. In his book entitled "Philosophia Occulta" he says, "The devil has not enough power to mend old broken pots, much less to enrich a man," he goes on to say, "that which is unexpected will in future prove to be true and that which is looked upon as superstitious in one century, will be the basis for the approved science of the next."

teaching about the Macrocosm and the Microcosm. We know that his eagerness to understand the relation of man to the universe led him to the study of the Kabala where this relationship is attempted to be explained. Much of his visionary cosmology has been evidently derived from this curious Jewish work. The Kabala teaches that the whole universe was incomplete, and did not receive its finishing touch till man was formed, who is the acme of the creation and the Microcosm. In the Zohar, iii. 48, we read: "As soon as man was created everything was complete, including the upper and nether worlds, for everything is comprised in man. He unites in himself all forms." By the Macrocosm then we are to understand the universe, including the visible and invisible things, by the Microcosm we mean the little world, a term usually applied to man. It was held not only that there was a relationship between man and the forms of life below him, but also between his spiritual body and the planets, and on this Wiegel says: "The external heaven with its continual revolution hath a most convenient correspondency with the inward heaven in the Microcosm, and this with that." This was fully believed by Paracelsus, and though to modern science it seems very absurd, the belief had a definite and useful influence. It is not quite so absurd perhaps as we may think. He says: "The human body is composed of primeval stuff," what we now term cosmic matter. Now the spectroscope has proved that the same chemical elements of which the earth and sun are composed are found in all the stars. In Haeckel's "History of Evolution" there is a series of plates illustrating the various consecutive aspects of the human embryon. These make up a perfect picture of the microcosmic development. If we were to place them side by side with Mr. Browning's lines they would form their best commentary. (I wish the Society would publish them.) This poem, we must bear in mind, was written in 1835, twenty-three years before Darwin and Wallace familiarized the world with the doctrine of evolution. "Nature," says the poet, "is nothing but a thought of God reflected in the life of man." [1]

> "God is the perfect poet,
> Who in His person acts His own creations."

This is just the idea of the Kabalists and Paracelsists; they say "the material universe is a thought of the external mind thrown into objectivity by its will, and crystallized into matter by its power"; to

[1] So Balzac "Dieu est le poète," and Petronius "Mundus totus exercit histrionem."

them "all stars and mountain peaks are thoughts of the Eternal Mind."[1] "The visible body of the invisible God," says Paracelsus. Matter to him was not dead, he says. "Matter is, so to say, coagulated vapour, and is connected with spirit by an intermediate principle which it receives from the spirit."

We cannot understand Paracelsus and the science of his time without a little inquiry as to what was meant by the search for the philosopher's stone, the elixir of life, and the universal medicine. It is very difficult to discern what was really intended by these phrases. Dr. Anna Kingsford, who paid considerable attention to the hermetic philosophy, says: "These are but terms to denote pure spirit and its essential correlative, a will absolutely firm and inaccessible alike to weakness from within and assault from without." Another writer ingeniously tries to explain the universal solvent as really nothing but pure water which has the property of more or less dissolving all the elements. His alcahest—as he termed it—as far as I can make out was nothing more than a preparation of lime; but writers of this school only desired to be understood by the initiated, and probably the words actually used meant something quite different. There was a reason for using an incomprehensible style for fear of the persecutions of the Church, and these books, like the rolls in Ezekiel, were "written within and without." Many great truths we know were enshrouded in symbolic names and fanciful metaphors.

It is certain that Paracelsus, like his predecessors, sought to possess the elixir of life. It does not appear from his writings that he thought it possible to render the physical body immortal, but he held it to be the duty—as the medical profession holds it still—of the physician to preserve life as long as possible. A great deal of matter attributed to Paracelsus on this subject is spurious, but there are some of his authentic writings which are very curious and entertaining. He describes the process of making the Primum Ens Melissæ, which after all turns out to be nothing but an alkaline tincture of the leaves of the common British plant known as the Balm or *Melissa Officinalis*. Some very amusing stories are told of the virtues of this concoction by Lesebure, a physician to Louis XIV. and which speak volumes for the credulity of the doctors of those times.

Mr. Browning makes his hero say to his friend Festus, when he tells him that his wife Michal is dead,

> "I have no julep, as men think,
> To cheat the grave;"

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[1] Dr. Hartmann's Paracelsus.

and this little point is typical of the historical accuracy of the poet's work.

Another of his great secrets was his Primum Ens Sanguinis. This is extremely simple, being nothing more than the venous injection of blood from the arm of "a healthy young person." In this we see that he anticipated our modern operation of transfusion.

His doctrine of signatures was very curious and most absurd. He thought that "each plant was in a sympathetic relation with the Macrocosm and consequently with the Microcosm." "This signature," he says, "is often expressed even in the exterior forms of things." So he prescribed the plant we call euphrasy or "eye bright" for complaints of the eyes, because of the likeness to an eye in the flower; small-pox was treated with mulberries because their colour showed that they were proper for diseases of the blood. This sort of thing still lingers in country domestic medicine. *Pulmonaria officinalis* or Lungwort, so called from its spotted leaves, looking like diseased lungs, has long been used for chest complaints. Michael Drayton in his "Polyolbion" describes one of the herbalists, and tells us how he went to work with his simples:

> "For them that are with newts, or snakes, or adders stung,
> He seeketh out a herb, that is called adder's tongue
> As Nature it ordain'd its own like hurt to cure,
> And sportive did herself to niceties inure."

As Emerson says:

> "The old men studied magic in the flowers,
> And human fortunes in astronomy,
> And an omnipotence in chemistry,
> Preferring things to names, for these were men,
> Were unitarians of the united world,
> And, whersoever their clear eye-beams fell,
> They caught the footsteps of the SAME."

Of course we see nothing of all this, the plants have nothing to tell us since

> "We ask their pottage, not their love."

Nowadays this all seems very silly, but we must not despise the ways we came by our knowledge of things. Mr. Tyler says: "Analogy has always been the forerunner of scientific thought," and we know that even magic had its uses in the beginnings of science.

What was the "cross-grained devil in my sword" of which he tells Festus in the third scene? Mr. Browning says it was

azoth, or simply "laudanum suum." If so, why "cross-grained devil?" Writers on magic, of whom Dr. Hartmann is one, describe azoth as being "the creative principle in Nature; the universal panacea or spiritual life-giving air—in its lowest aspects, ozone, oxygen, &c." Much ridicule has been cast upon Paracelsus for his belief in the possibility of generating homunculi, but after all he may only mean that chemistry will succeed in bridging the gulf between the living and the not-living by the production of organic bodies from inorganic substances. This may no doubt be ultimately done though we know it has not hitherto been effected.

We must be to some extent familiar with the philosophy of Paracelsus. That Mr. Browning is a mystic I presume no one will deny, hence his sympathy with this mystical theosophist. Take for example the beautiful lines in the first part of the poem beginning:

"Truth is within ourselves.

* * * * *

There is an inmost centre in us all
Where truth abides in fulness; and around,
Wall upon wall, the gross flesh hems it in."

Before we can clearly see the idea expressed in these lines we must know that Paracelsus held that the constitution of man consists of seven principles: (1) The elementary body. (2) The archæus (vital force). (3) The sidereal body. (4) The animal soul. (5) The rational soul. (6) The spiritual soul. (7) The man of the new Olympus (the personal God). Those who are familiar with Indian philosophy will recognise this anthropology as identical with its own. Paracelsus, in his "De Natura Rerum," says: "The external man is not the real man, but the real man is the soul in connection with the Divine Spirit." We understand now what Mr. Browning means when he says that knowing is opening the way to let the imprisoned splendour escape.

He was called a quack and impostor because he cured sick folk by unaccustomed methods. We have baptized these methods now, and given them orthodox names. Thus does the quackery of to-day like its heresy become the orthodoxy of to-morrow. We may forgive this man his wrathful arrogance and boastfulness "for the sake of the indomitable hardihood with which he did lifelong battle, single-handed, against enthroned prescription," says a recent writer. Into the tangled undergrowth of theosophy, mysticism, magic and theology, he burst with the pioneer's hatchet of chemical experiment and clinical observation, and cleared a path for physical science. The path

was narrow it is true, it led through many a dangerous place, but it is the same road which greater engineers have improved for our use to-day. Here is your true Pathfinder and Pontifex Maximus! He belonged to the highest order of men, that of the initiators who are the guides of mankind, who, bearing aloft the torch of intellect, plunge into the regions of the unknown and call on us to follow them. New ideas to men of his type are as the oxygen we breathe—they cannot help doing great things. I said that some of his apparently absurd notions had a basis of truth. Let me give an instance of this: his idea that all Nature was living, and that there is nothing which has not a soul hidden in it—a hidden principle of life—led him to the conclusion that in place of the filthy concoctions and hideous messes that were in vogue with the doctors of his time, it was possible to give tinctures and quintessences of drugs, such as we now call active principles,—in a word, that it is more reasonable and pleasant to take a grain or two of quinine than a tablespoonful of timber. He set himself to study the causes and the symptoms of disease, and sought a remedy in common-sense methods. Mr. Browning is right when he makes him say he had a "wolfish hunger after knowledge;" and surely there never lived a man whose aim was to devote its fruits to the service of humanity more than his. After this brief study of his life and character, how faithful seems the estimate of the poet to the life-passion of the hero!

What wondrous good has he brought, Prometheus-like, from heaven? Let me tell you just one. A child was burned the other day from head to foot; in terrible agony it was taken to the hospital, in an hour it was calmly sleeping. A man at work upon the front of a house lost his footing, fell, was impaled upon the railings; he too was taken to the hospital, in a short time he also was asleep. Both had the blessed tincture of opium invented by Paracelsus; and in Browning's words:

> "Men in racking pains may purchase dreams
> Of what delights them most, swooning at once
> Into a sea of bliss."

When you think of pain, remember and bless the memories of Paracelsus, and of Simpson, the discoverer of chloroform. "I precede my age," he says in the poem. There are many hints in his works that he knew a great deal more than he cared to make known. Take this example. He said: "Every peasant has seen a magnet will attract iron. I have discovered that the magnet, besides this visible power, has another and a concealed power." Again: "A magnet may be

prepared out of some vital substance that will attract vitality." Mesmer, who lived nearly 300 years after him, reaped the glory of a discovery made, as Lessing says, by the martyred fire-philosopher who died in Salzburg hospital.

From this study of a soul Mr. Browning evidently desires us to learn at least one great lesson—that neither the intellect without the heart nor the heart without the intellect will avail for the highest service of man by his brother. We are just beginning to learn that the Gospel of the Carpenter's Son is a life to be lived, not a mere creed to be believed. I am not quite sure that Mr. Browning did well to point this moral from the life of his hero. He was only unloving and unlovable when combating the gross stupidity and bigoted ignorance of his brother doctors. He seems to have been in life and death the loving friend of the poor, to whom when he died he left all his goods. But the lesson of the union of heart and head is good to learn from any parable. Think of this. Just about the time of Paracelsus a company of heretics about to be burned at the stake were compelled to listen to a sermon from this text: "If I give my body to be burned and have not charity, it profiteth me nothing," and probably the preacher really believed he was preaching the doctrines of Christ. Why has the Gospel of Love survived this perverted systematic theology? Because after all the human heart is stronger than the human head.

There is a large and beautiful church in the Roman Campagna built on such a pestilential soil, so deadly in its effects on the atmosphere, that it can no longer be used for worship. Its marble pillars are entwined with luxuriant creepers, its cracked and crumbling monuments are garlanded with lovely southern flowers, lilies and roses grow out of its tombs, and the choir stalls, carved with quaint figures of demons and satyrs, are beds from which spring delicate mosses and fair ferns; the birds build their nests in the traceries of the beautiful storied windows, and the lizard sports on its marble walls, the bats haunt its dark recesses. A solitary monk, as a penance for past sins, says the daily mass before its moss-grown altar, at which no worshipper but himself dares to kneel. Yet the flowers breathe the pestilential atmosphere uninjured, and beautify the ruins on which they grow. "Only gradually," says Professor Graetz, "does religion become humanized." Had not human love, like these fair flowers, softened and adorned the grim and crumbling creations of a pseudo-scientific and dogmatic theology, religion would have long since lost its hold on modern man. To live *to know* alone is to miss life's end; to live *to love*, for art and beauty and pleasantness alone,

is to miss it just as surely as Paracelsus missed it. "And why?" he asks:

> "In my own heart love had not been made wise
> To trace love's faint beginnings in mankind,
> To know even hate is but a mask of love's,
> To see a good in evil, and a hope
> In ill-success; to sympathize, be proud
> Of their half reasons, faint aspirings, dim
> Struggles for truth, their poorest fallacies,
> Their prejudice and fears and cares and doubts;
> All with a touch of nobleness, despite
> Their error, upward tending all though weak,
> Like plants in mines which never saw the sun,
> But dream of him, and guess where he may be,
> And do their best to climb and get to him.
> All this I knew not, and I failed."

"And this was Paracelsus!"