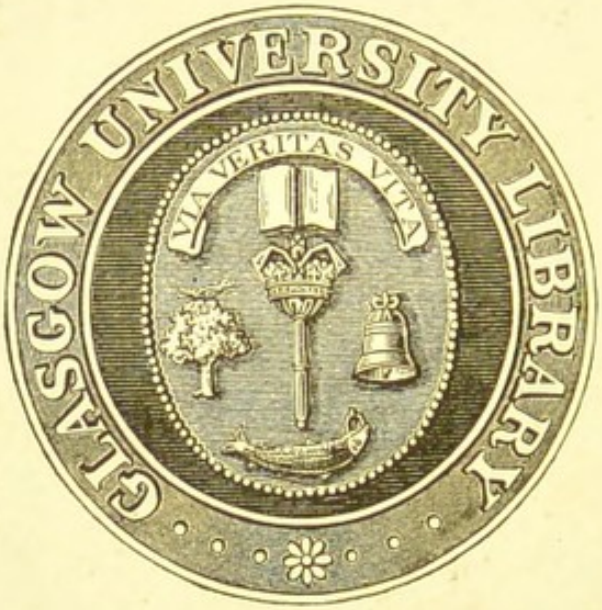
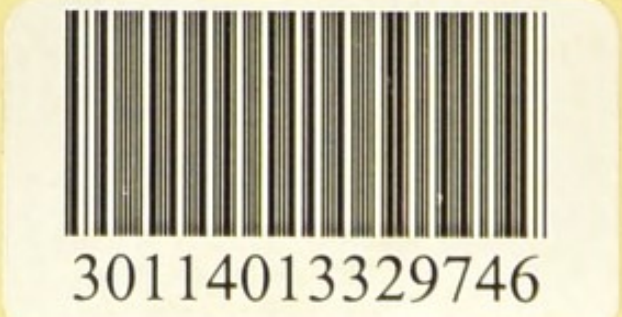
On medicine and medical education : three lectures with notes and an appendix / by W.T. Gairdner.

ON

MEDICINE AND MEDICAL EDUCATION.

W. T. GAIRDNER, M.D.





To Dr. Gull

With the Author's compts
& Kind regards

January 5th 1859.

THE origin of this publication may be very briefly told. In accordance with a custom existing in the Edinburgh Medical School, the author was requested to deliver to the Students assembled at the commencement of the Medical Session 1856–57, an Address having reference to the occupations in which they were about to be engaged. Many persons, at the time, looked for the publication of this Address as a matter of course; and a selected portion of it appeared in the *Edinburgh Medical Journal* of the next year, at the request of the Editor. On consideration, however, the author thought that the address, as a whole, might with propriety be reserved until additional time and opportunity enabled him to add to it the expression of his views on some allied subjects, to which, as a teacher of medicine, he had been led to give particular attention.

It is not pretended that these Lectures are printed here exactly as spoken. Some portions have been added, which were written previously, but were omit-

ted in delivery from want of time. And although the general form has been preserved, the author has not, in any instance where he considered it of importance, abstained from making alterations and additions. Hence all the three Lectures now appear somewhat longer than could properly have been inflicted on an ordinary audience at a single sitting.

Hoping that this little volume may, to the extent of its influence, tend to promote a right spirit among the cultivators of the healing art, and a better mutual understanding between them and the public, the author leaves it in the hands of those who may feel interested in its contents.

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PREPARING FOR PUBLICATION,

AN ELEMENTARY BOOK

ON

THE PRACTICE OF PHYSIC.

By W. T. GAIRDNER, M. D.

INTRODUCTORY ADDRESS,

DELIVERED AT THE OPENING OF THE MEDICAL SESSION,

1856.

It has fallen to my lot this year, Gentlemen, to address to you some words of welcome, of encouragement, and of advice. It is impossible to look round on this assemblage, to remark the old familiar faces, and the many new and eager ones, without the wish to say something worthy of the occasion that has called us together. If I feel, as I do feel, that personally I am but little fitted for the task intrusted to me, I am on the other hand strengthened by the knowledge that it is a duty which I have to perform; and that simplicity, directness, and the strong desire of doing good, will stand with you in the place of oratorical cunning.

The duty which I have to perform is partly towards you, and partly towards my colleagues, whom I see around me. On their part I have to give expression to those wishes, those hopes, and those fears concerning you, which must ever be present to the mind of honest

teachers. On the other hand, I have to impress upon you that you are received here, not into the society of mere lecturers, but of men anxious and watchful, devoted to your welfare, sympathizing with your aspirations, desirous to remove your difficulties, and not deficient in kindly regard even for your weaknesses. If I can succeed in entangling you thus early within that net of intelligent sympathies which the study of medicine weaves around all its worthy professors, I shall have brought about the highest result at which I aim, and shall have discharged my duty on this occasion.

A word of welcome, then, first of all. Some of you sit on these benches for the first time; and which of us all does not well remember his first appearance in a medical class-room? Which of you will not join me in saying to the junior student, welcome? He will have, no doubt, his misgivings. The strangeness of the scene, the separation from friendly and familiar faces, may inspire a feeling chequered with something like sadness. Yet it may not be amiss to remind you that life has other emotions, other associations in store for you; not inconsistent with those you have left, but, on the contrary, yielding to them a higher zest; lending to the joys and sorrows of the heart and home that depth and strength and steadiness which arises from their being set in a firm and manly character. You have now to begin the battle of life, to take your places in the world as men of action, or at least to prepare for this great ordeal. And, as the crusader journeyed forth into distant lands, postponing for a

season the enjoyments of life and the smiles of his lady-love, till he had done deeds of valour against the Pagan foe, so you, too, seek the class-room and the hospital with no idle or careless intent, but under a solemn vow to show those who have followed you thither with their affections and their prayers, what manner of men you are. And to this ordeal we bid you welcome, not fearing the result.

So much for the beginner. To those of you who have been already initiated into medical studies, and especially those to whom this class-room is a familiar place, we trust that not many words are necessary in the way of welcome. I, for one, doubt not that the return to Edinburgh, to the toils and anxieties of the session, will carry with it some pleasing associations; something of friendships broken and to be renewed; something of work interrupted and to be resumed. The man for whom there waits no kindly remembrance of these things ought, perhaps, to consider well whether he has not mistaken his calling. With the great majority of you, I am satisfied, the return to work is neither an indifferent nor a painful matter; and we, your teachers, desire to join in the congratulations proper to the occasion; bidding you heartily welcome in the same spirit, grave and earnest, yet hopeful and joyous, in which, we trust, you have already saluted the scenes and the companions of your labours.

A great part of the instruction which you have to receive from your teachers in this school will be con-

veyed in the form of lectures. Now, lecturing as a means of instruction has its advantages and its disadvantages. The advantages are, that it secures for the teacher a fitting position for the systematic development of his ideas before a large class; that it gives ready opportunities for the exhibition and explanation of specimens, dissections, experiments, analytical tables, &c., and that it does not fritter away the valuable time of the able and attentive student by compelling him to follow the painful efforts of the less gifted or less thoughtful disciple. Against these manifest advantages have to be set grave disadvantages and dangers. Such are the evils which may arise from the want of a proper understanding between the lecturer and the student; which, in the case of the *mere* lecturer, may be pronounced irremediable. Slovenly teaching on the one hand, careless hearing on the other, are sure to follow such misunderstanding. It is a grave and perhaps ruinous injury to you if you fail at the outset to follow your teacher with a certain degree of satisfaction; for the habit of inattention, thus implanted, may never be eradicated. And the misfortune to him is not small; for few men have the power of detecting and correcting their own faults; and unless some other sphere than the lecture-room be accorded to the teacher, the habit of studying the peculiarities, and adapting himself to the wants of his pupils, will in all probability never be acquired.

Under these circumstances, I believe I shall be only enforcing the convictions of every one of my colleagues, if I say that a more familiar intercourse with

you, and especially with the juniors among you, than the lecture, properly so called, permits, is highly desirable as an aid to the instruction there intended to be conveyed. I allude, in the first instance, to the system of *vivâ-voce* examinations, or conversations, as they might perhaps be called, which is now in almost universal use in this school, in addition to the formal lecture. I value this system very highly myself, and I am quite sure that it is, not perhaps indispensable, but, to say the least, extremely useful, both to the student and the teacher. It is therefore always with regret that I observe students detained, whether by want of time, diffidence, or other causes, from joining in these conversations. Let me assure you that it is by cultivating from the first the habit of taking part in them, and in the other exercises of the class, that you will most easily qualify yourselves for passing that final ordeal which has been established as the test of your proficiency; and which too many of you, when the time approaches, view with such vague and exaggerated terror. It is not the experienced swimmer that dreads the water. But if you will save your skin at the first, you must expect to be rather unpleasantly affected, when at the end of your studies you go shivering and naked into that very cold bath which is prepared for you in the College over the the way. Be therefore wise in time. Do not trust to the "grinder" in your last session; but accustom yourselves to carry out, all through your studies, the eminently tonic and invigorating habit of ascertaining your own progress, as compared with that of others

andwith the expectations of your teacher. To recur to my former illustration, you may find the first plunge require an effort, during this dull November weather; but ere long you will go in like a water-dog, and come out steaming and glowing, and like a giant refreshed after slumber.

But I have taken a low view of the matter in recommending class-examinations to you as a means of preparation for your final trials as students. They are far more than this. They tend to fix and confirm your knowledge, to give you opportunities of correcting and arranging it, and, above all, to make sure that it is forthcoming when wanted. They force you into personal communication with others; they form the best of all introductions to your teacher and to your fellow-students; and they lead to many pleasant and profitable associations, which may be followed up with advantage elsewhere than in the lecture-room. Depend upon it, it is not by sitting in the corner of a room, and being preached at for six hours a-day, that you will make yourselves masters even of the doctrine, much less of the practice, of modern medicine. Still less will you fit yourselves in this way for the great business of the world. You should bear in mind throughout your studies that the spirit of medicine is eminently social; that its duties have to be performed *among men*, and that the habit of easy, unrestrained intercourse with others is among the first of the lessons you have to learn. This habit you will easily acquire, if you avail yourselves of every opportunity to make your studies the basis of such intercourse; if, instead

of converting yourselves into magazines of solitary erudition, you use your endeavours to interest all around you among your fellow-students in your common pursuits. By attendance on the familiar class-examinations you will be led to make your studies the subject of conversation among yourselves, as well as with your teachers. Some of you will be more, some less advanced in study; some will be more possessed of one, some of another kind of knowledge; but you will all sympathize in each others' difficulties, and I trust you will all be generous enough to be interested in each others' success in overcoming them. Sure I am that the more you rub shoulders in this way the better for you all. The care which you give to each others' progress is, like mercy, "twice blessed: it blesseth him that gives and him that takes." No student can explain the simplest fact in medicine to his fellow without being led to inquire into something which he has formerly overlooked, or without deriving an increased assurance of his own completeness and readiness of information. And when you consider how impossible it is for the teacher to exhaust every subject that he touches, in a science so wide and so incomplete as medicine, you will readily apprehend that the field for legitimate discussion and conversation outside the lecture-room is one which may be cultivated with the greatest advantage. To this sort of prolific and eminently useful intercourse you are directly led by class-examinations properly pursued. The lecture sows seed, which may or may not fructify, according to the disposition of the soil to receive it. But the examina-

tion ploughs deep into the soil, breaks the clod, turns it over and over, and finally, when the good seed has sprung, uproots the weeds which choke its growth, and exclude both light and air from the tender plant. I do not say that it is impossible for a blade of corn to spring up without any of these processes; but without them it is impossible to have an abundant and goodly crop. And assuredly, to the mass of students, examination, or some process whereby the living contact of mind with mind is secured, is not a luxury, but a necessity.

A very important feature in modern medical education is its practical character. This feature is not, perhaps, recognised so fully in your authorized curricula as it ought to be; indeed, in this respect, our practice is in advance of our regulations. I desire, therefore, to say a few words in recommendation of what I believe to be a sound principle. By practical instruction I do not mean, as you might perhaps suppose, instruction in the treatment of diseases only; but instruction, whatever be its subject, conveyed in such a form as to bring the student face to face with the facts of nature as well as with his teacher and his books. Now lectures are by no means to be despised; and neither, most undoubtedly, are books, and especially good books. "A good book," says Milton, in that most magnificent of all his prose writings, the *Speech for the Liberty of Unlicensed Printing*—"A good book is the precious lifeblood of a master-spirit, embalmed and treasured up on purpose to a life beyond life." Such books exist in our science, though in this

printing and publishing age they are few and far between. Moreover, it is only in the very rarest instances that books of this highest and best quality can be recommended as being also good elementary works for the use of the student. The greater number of those which we shall be obliged to place in your hands are, after all, mere useful compilations, addressed to the memory far more than to the higher faculties, and embodying nothing but the barest summaries of facts and doctrines which every hour is placing in new combinations, or even removing altogether to make room for new ones. Such books may instruct, but can never inspire you. I do not mean to disparage them in saying so; for if they faithfully fulfil even the minor office,—if they prove what they profess to be, good dictionaries and works of reference, you will have cause to be grateful for the possession of them. But as no one, except perhaps a very learned philologist, can learn a language by poring over a dictionary and grammar, so I do not expect that you will become masters in science by any amount of "reading up" in a text-book. Facts, experiments, observations—truth, in a word, as gathered from the living springs of nature herself—these are what the soul of man thirsts after with a never-dying thirst. Books are the faithful and necessary interpreters—the slaves of the lamp, ever at hand when wanted, silently and unobtrusively doing the drudgery of scientific instruction, and yielding up the endless riches of the past to the hand of their master. But he who would use them aright must himself have walked in the enchanted garden of nature; he must have looked

on her ever-open volume, to which all others are but the key.

Our modern medical instruction has become fully awake to the fact, that lecturing and listening to lectures, even with the aid which this process derives from examination, is not all-sufficient. It is a great step gained. Time was when this great truth was not recognised in medical discipline—when as yet the hospital, the dissecting-room, the laboratory, the dispensary, were not a part of the generally-admitted apparatus of medical education. The business of the student in those days was simple; and that man generally succeeded best, other things being equal, who had the most rapid hand at taking notes, the best memory for mastering long names. *Jurare in verba magistri*—that was almost necessarily the rule; and medical schools, as well as the greater world of medicine without the doors of the Universities, were seen dividing themselves into parties upon grounds with which nature and fact had little or nothing to do—where the whole question at issue was an abstraction, and the whole object of the quarrel was a victory for this or that professor over this or that other. No doubt this is a caricature of the good old times; for, notwithstanding grave faults in the system, sensible men were found to overleap its iron barriers, and become good teachers, good learners, good practitioners in spite of all. But the tendency of the lecturing system, carried on to the exclusion of others, was undoubtedly what I have told you; and I have, in fact, given you no very exaggerated picture

of many medical disputes in the days of our forefathers. Perhaps there may be found, in a few of those which even now agitate us, enough of resemblance to my rough sketch to enable you to recognise the evil when you meet with it. But, on the whole, times are now greatly changed. Practical instruction is everywhere admitted into your curricula as an indispensable adjunct to lecturing; and those are everywhere admitted to be the best teachers who are able most judiciously and effectively to combine the two, and to feed the uninformed mind, not with vague general doctrines and intangible abstractions, but with the actual lessons of nature and the ideas that spring directly from their contemplation.

The extra-academical school of Edinburgh has in this respect some very important and special privileges which it becomes you duly to appreciate, and which I will take the liberty of pointing out. In the Hospital, for instance, the seat of practical instruction in the more limited sense of the term, you have several special and general cliniques in the medical or physicians' department, and these might be even increased in number with advantage; perhaps if we can get an additional hour for hospital teaching, as is the earnest desire of my colleagues and myself, they may be so. In the Surgical department you have a general and two special cliniques. You have also that most important department of Morbid Anatomy, the basis of almost all that is exact and sure in modern pathology; to it much time must be given, although as yet none of the Examining Boards have formally required you

to do so. How are you to do justice to all these means of instruction unless you take care to begin sufficiently early? It is often said that "walking the hospitals" is of no use until some branches of systematic instruction have been thoroughly learned. I am of a very different opinion. If there is one thing I feel more secure in saying to you than another, it is that you cannot enter the hospital too soon, or leave it too late in the course of your studies. You have little enough time for what you have to do there. I do not mean that you can or that you ought to attend clinical lectures during your first year, although I have often thought that a special series of clinical instructions for the beginner might be organized with advantage; and that much of that education of the senses which in the medical wards demands so much time and trouble, and which at present we are obliged to crowd into the last years of study in a far too hurried manner, might be learned at a much earlier period. It is at least as easy to learn the characters of the pulse, the external characteristics of disease, and even the principal phenomena of instrumental diagnosis dissevered from their interpretation, as it is to understand the shape of a bone, the relations and insertion of a muscle, the nature of a precipitate, or the laws of atomic equivalents. And if you knew how much your future study would be lightened by this foundation, how much would become possible that is now impossible to you, I am quite sure that you would spontaneously accord this additional year of clinical study in the medical department, and that the studies

I allude to might be made at least as attractive and useful to the student in his first year as at any subsequent period.

In Anatomy and in Chemistry I need hardly say that the practical departments, under the same teachers as the theoretical, ought to absorb a large share of your attention. How much, I may safely leave it to those gentlemen to tell you.

In Operative Surgery we have always classes during the summer, wherein you have an opportunity of learning what those who go directly into general practice come at once to feel the need of, and what can never be learned, except at the expense of human suffering and perhaps life, elsewhere than in some such class as this.

In Practical Midwifery we have also abundant opportunities; and, owing mainly to the exertions of one of my colleagues, this most important department has lately been added to the curriculum of the College of Surgeons, as it must soon be, one would think, to that of every other licensing body.

Finally, we have now, I am happy to say, through the assistance of another colleague, succeeded in connecting the course of Medical Jurisprudence with a practical department which is capable of being made of the greatest service to you.

These remarks will serve to show the extent to which the great idea of practical instruction (or instruction carried directly from nature to the ears, and eyes, and mind of the pupil) enters into the plan of this Medical School. I can say for myself, that I feel

as if much of my usefulness to you, such as it is, would be lost, should any capricious turn of fortune deprive me of the means of meeting you at the bedside of the sick, where we are all students, as well as in the lecture-room, where I teach and you learn. I am not without hope that the time may one day arrive, when every teacher of a systematic branch ~~in this school~~ may be able to plant his foot firmly down on the practical counterpart of his systematic course; to derive, like Antæus of old, new strength in wrestling with its difficulties from the contact with fact and reality. Nothing is more treacherous or more seductive than the position of the teacher, who with a large class before him, gives himself up to dogmatize. For a while he may resist the evil influences of his position; but unless his nature is more than human, he is apt, more and more every day, to put formulas in place of things, hearsay in place of fact, fancies in place of reasoning, plausible theories in place of the results of honest investigation. But take the teacher of natural science to nature herself,—place him with an intelligent and critical audience in contact with her ever-consistent revelations,—and you burst whatever webs of sophistry he may have unwittingly woven around his own ideas. The mere lecturer —the dogmatist, preoccupied with his opinion, and contemptuous of yours—is gone; in place of him you have a student like yourselves, candid, humble, inquiring, and truth-speaking, so far as it is in him to be. Hence we trust the botanist most in his garden, and the geologist most on the hill-side, and the comparative anatomist most in his museum; and for the same

reason we ought to see that the great departments of medical science are taught after this truly useful manner—giving to every systematic and doctrinal teacher, as far as possible, his practical field of instruction; to the anatomist his dissecting-room, to the chemist his laboratory, to the physiologist and the pathologist, to the teachers of medicine and surgery respectively, the fullest command of all appropriate means of practical education.

The only way to obtain the full benefit of practical instruction is to begin early. Do not wait until you are half through your curriculum, for instance, before you enter the hospital. Take my advice, and go at once in search of a perpetual ticket. I don't think it of so much importance whether you begin in the medical or in the surgical department; but go there, even during your first year, if not regularly, at least very frequently. Learn to use your eyes and your ears; learn the habits and demeanour necessary for dealing with the sick; learn, in short, everything that you can learn at this stage of your progress. You will take twice as much interest in your other studies when you have seen, even dimly, to what they tend, as if you went to them without such preparation. And so with all the rest. I believe, myself, (though I desire not to commit my colleagues on this point) that the best preparation for many of their lectures would be a little practical knowledge of chemistry, of pharmacy, of anatomy—just so much, of course, as to clear the way; a little knowledge of the appearance of the bones, for instance, before attending lectures on the bones, and so on. It

is not always easy to carry on your studies in this manner; but where you find the facilities ready to your hand, you should by no means neglect to use them. That is all which I feel I have a right to say upon a subject which is necessarily one of detail; and in regard to which each teacher must advise you in his own department.

And now let me say a few words as to the spirit in which you are to go about your work. That you should be instant and watchful for every opportunity of acquiring knowledge, is too evident to require much illustration. However long the time may be before you, I never yet found the student who at the end of his curriculum said that he had more than he required. Besides, nature is a coy mistress, and does not always show herself in the wished-for mood. You cannot get your illustrative case when you want it; you cannot go into the hospital or dispensary, and say "show me this or that broken bone, this or that inflamed organ." You must lie in wait for knowledge, and take events as they come; looking at the same thing many times over, with new information, new experience, more enlarged mind each time. The sooner, therefore, that you master the elements, the fewer will be the incidents which will pass by you unimproved. The lazy student, who bungles his anatomy the first year, is thereby disqualified for much of his surgery the second; if his chemistry has been neglected, the evil falls forward on the materia medica,—and so on. By the end of the third year he has sufficiently come to himself to be wan-

dering about in a maze of confusion in the hospital, wondering when he will be able to see and understand things like his neighbours. The best thing that can happen to such a man is to be rejected at his examination, and to begin again; or to stop altogether, and take to something else with more spirit and method. Do not, therefore, put off any portion of your studies to a more convenient season; do everything thoroughly as you go along, and put the whole force of your mind into the work of to-day. Be systematically in your usual place at lecture; and if unavoidably you miss anything there, make it up in reading as soon as possible, and do not make your absence a reason for not attending the examination, but rather for going there the more punctually. The habit of steady application is not only a good habit in that it promotes work, but also in that it permits of ease and rest, which are never so sweet as when they have been earned by honest, hard, good work. The student who has been at his classes and over his books all day long, will seldom, or at all events will not wisely, grudge himself the night's rest; still less will he run the risk of being confounded with those who turn the night into the day, and, as a necessary consequence, the day into the night.

But you will need resources beyond the sphere of books and lectures and hospitals. Your profession is one demanding a great deal of general mental culture; it is, moreover, an eminently social profession; and lastly, the body must be attended to, for it would be lamentable, while studying the very structure of that complex machine by which the work of your life is to

be done, to allow it to fall into decay for want of proper tending. I do not hesitate to recommend that for these purposes you should make a clear break in your professional avocations on the Saturday afternoon. I was at a meeting the other night, of the working man's half-holiday association; and I fully coincided with the sentiments of some of the speakers, that we, who work by the brain instead of the hands, are entitled to the highly honourable designation of a *working* class. Let us, then, have our Saturday half-holiday too, and from one, or at least two o'clock on Saturday afternoon till nine o'clock on Monday morning, let us "throw physic to the dogs," and give the time to exercise, to amusement, to society, and to worship.

Let me conclude my advice to you on this occasion by exhorting you to pursue the profession you have chosen, in an earnest, grave, decorous, and, above all, a religious spirit. You are not to regard the science and art of healing as a mere means of earning daily bread—though that, in itself, is no real degradation to any science or any art; nor yet merely as an intellectual pursuit, nor as a means of moral culture, nor as an instrument of practical beneficence; but over and above, and including all these considerations, you are to place the conviction that the work of your lives is a work imposed on you by God—a *calling* in the real sense of the term—one which requires of you no less than the devotion of your best energies, as, indeed, it presents to you the widest of fields for their development. The spirit which I now recommend to

you may be expressed in the words of St. Paul as applied to the Christian calling—"Take heed that ye walk worthy of the vocation wherewith ye are called." I will only suggest one or two considerations which should induce you to take this matter seriously to heart.

The first is, that there is a special sacredness in the art of medicine itself. You will ere long be placed in the chambers of the sick and dying. Your life will be spent, as it were, in sight of the very gates of eternity; and amid the most affecting and confidential intercourse with your frail fellow-mortals, you will be charged to watch over the flickering flame of life. Can you be careless whence comes that life, whither it goes, and to what purpose it is devoted? The very instruments with which you work—sharp knives, sharper and more deadly medicines—are suggestive of an awful responsibility. Will you use these instruments with your own reputation and your own glory solely in view? Or will you use them reverently, as you shall answer to God, who gave them to be for good or for evil, for a blessing or for a curse, according as you shall direct them? From your lips, one little word, winged and irrevocable, may carry healing and comfort, or inflict torture worse than death. Will you and dare you speak that word without a thought of one whose ears are always open, and to whom, as the Great Physician, you must account for it, as well as for every word and every act of your professional career. No; your art is sacred; you cannot think it otherwise.

But put aside for a moment the sacredness of medicine as it deals with your fellow-men. Let me suppose that you are studying medical science without any immediate view to the responsibilities and the cares of practice; that the pure love of knowledge, and the desire of intellectual and moral gratification are all the rewards you seek. Still, I say, think of the end. You have talents, means, opportunities of no common kind. To what purpose will you devote them? Many men have toiled that you may know; the science of two thousand years has unrolled her ample page before you, and you are "rich with the spoils of time." Where will you deposit your treasures? Will you bury them in the earth, or will you lay them up in heaven? Will you consider your knowledge and your powers as your own, or will you become the faithful stewards of Him to whom you owe them all? Will you seek chiefly wealth, fame, personal distinction, those luxuries of the body and of the mind? Or will you be content with little of these, so you can find the way to render your gifts available for man, and return your talent with increase to God who gave it? Is your study of medicine to be merely an innocent, or, at most, a less hurtful form of self-indulgence; or is it to be the devotion of a life to important objects, and the systematic pursuit of these objects through good report and evil report, for the good of man and to the glory of God? Are you to be the spoiled child of science, or the heroic and religious man, to whom science is but the armour for the battle of life? All depends on the spirit in which you begin;

and it is now that you have to make the choice of motives which may influence your whole life.

Science, fame, honour, riches—all these give a certain stimulus to exertion. Many discoveries and inventions, useful to humanity, as well as striking and beautiful in themselves, have sprung from the love of these. They are, therefore, not to be despised, and still less to be treated as adverse to the religious spirit. On the other hand, nothing can be more injurious and degrading to the practice of medicine, nothing more lamentable in the followers of our noble and truly humanizing vocation, than that they should be wanting in that which can alone regulate and direct aright these comparatively selfish and ignoble impulses. I will do no more than hint at the shocking prostitution of our art which arises from the desire of wealth too exclusively pursued. A mercenary doctor, in whom the "*auri sacra fames*" has eaten out alike the human heart and the love of knowledge, is indeed a creature abhorred of God and man. Happily you will not be exposed during your studentship to this temptation; and I trust that the spirit of the patient and disinterested scholar will prove a protection, in the earlier part of your career, against a vice which is rarely the vice of the young, and perhaps still more rarely that of the young Physician or Surgeon than of most other members of the community. But you may require to be warned, and you cannot be too early warned, that the search for scientific truth itself, and still more the appetite for reputation and precedency in that search, is capable of intoxicating and preoccupying the mind

to a dangerous and vicious degree; capable of absorbing that native generosity of disposition which is rarely wanting in the well educated youth; capable of undermining the moral principle even in the firmest of characters; of blasting the charities of life even in the mildest. I have seen some of the very ablest of our students display, in the mere struggle for College prizes, all the evidences of a selfish and unscrupulous nature; and I have thought, with pain and humiliation, of the greater struggle which awaits such men in the world, when there will be almost nothing to check, and everything to encourage the virulence of animosity, and the meanness of jealous self-seeking. Surely, of all the infirmities of noble minds, the distempered and insatiable ambition of which I speak is one of the most lamentable. To how much offence, to how much real injury, to how much petty and humiliating irritation does it give rise! How cruel and haughty is it in prosperity! How abject and wretched in adversity! How unjust to others! How little satisfied with itself! Truly the man who is beset by this absorbing and jealous passion will live to say with the preacher—"Vanity of vanities—all is vanity!" Nor will the most eminent qualities and the most splendid success save him from this bitter conclusion.

I have brought before you this one form of vicious self-indulgence for the purpose of impressing upon you the truth which I wish to convey—that it is possible to fall very far short of your duties as men, even while you seem to yourselves to be straining every nerve

towards distinction and success as students. The vice which I have held up to your aversion is one to which ill-regulated and ill-balanced, rather than sensual and degraded natures are prone. But no other vice, not even the worst of those "fleshly lusts that war against the soul," marks more distinctly the absence, or the feeble and indistinct development, of the religious principle. You have indeed duties to perform to yourselves, and you err grievously if you steep your souls in the lethargy, and abandon your bodies to the destroying influence, of dissipation and sensual indulgence. You have, moreover, duties to perform to society, and you are lamentably wrong if through sloth or perverseness, or even thoughtless frivolity of disposition, you neglect them. But over and above these social and personal duties, comprehending them all, and therefore superior to them all, stands the great duty of *self-sacrifice*—of *devotion*, in the only genuine sense of that much abused word. For devotion is not a sentiment, or a creed, or a formality, as some would have it, but a deed—a practical recognition of the great Creator and Sovereign of all, by the life-long dedication to Him of that which is his. You are *devoted*, or *devout*, which means the same thing, if you are busy and studious; but you must also be more anxious to study to a right end, than to reap a present reward in the praises of your fellow-students, or even of your teachers. You are *devoted*, if you preserve an unblemished reputation; but you must also have been more desirous to be, than to seem, good, otherwise your virtue is the virtue of the hypocrite, and such will be your reward. You are

devoted, if you seek, by fair and honourable means, a distinguished place among your fellows; but you must not only see that you deserve, before you attain, such a place; you must also be sure that you look to distinction only as a means of greater good, a fulcrum for that moral lever by which you are to work on and on, through time and through eternity, the work that is given you to do.

Self-sacrifice—or rather self-devotion—is the mark of the religious character, as selfishness is the sure sign of the opposite. I trust I do not exceed my duty in this place by saying, that we look for the manifestation of a religious character, after this manner, in each of you. We do not inquire, and we care but little, in what form you clothe your religion, as a sentiment or as a system; what creed you adopt, to what church you adhere. But to find you, or to make you, earnest men; to keep you ever mindful, by precept and example, that your art is a business, and not a mere pastime; a God-given business too, and not a mere money-making machinery, an arena for intellectual gladiatorship: this we conceive to be no less our duty than teaching you the details of the art itself. We may perform this duty feebly and inadequately; but a duty it is, and as such we recognise it. Do you, on your side, not fail to give your thoughts seriously and often to this religious aspect of your vocation: let the consideration of it preserve you from idleness, which is the waste of your time; from dissipation, which is the abuse of your body; from over-work, which is the ruin of your mind. You are the appointed keepers of

these precious gifts of God; keep them well, that you may render a good account of them. Be not vain and self-confident, for this is to value yourselves above your work; nor abject and mean, for this is to degrade yourselves below it. Find out what you can do, and do it cheerfully and quickly; for the measure of your ability is also the measure of what is required of you. Seek distinction, not to rest upon it, but to strive beyond; the more honour, the more work; the greater the praise, the higher the task. Let your object be to prove your powers to yourselves, not to display them before others; so shall you be careless of unmerited praise or neglect, not through indifference, but because no one can take away the object for which you strive. It is a little matter that another man's work is better than yours; it is much, that your own be as good as you can make it.

If you study in this spirit, you will stand clear of all baser motives, so far as they are opposed to this; you will put away jealousy and evil-speaking, "malice and all uncharitableness;" you will be helpful and generous, modest and truthful, careful of the reputation of others, not fearful or anxious about your own. And so may God send you this spirit, and help the good work, both with students and with teachers!

NOTE ON THE INTRODUCTORY ADDRESS.

The object of the preceding Address having been to give fitting advice to those to whom it was addressed, by directing their attention to those parts of Medical study which, being less prominent than Lectures in the programme, are somewhat apt to be slurred over, it would have been out of place to enter into a critical dissertation as to the comparative value of lectures and practical instruction, or to discuss the existing arrangements of our curriculum with a view to their improvement. I willingly avail myself, however, of the present opportunity of urging on those who have the management of medical education, the importance of a more extended recognition of the direct study of nature in every department of Medical Science. The advances which have been made in this direction during the last half century have been an unmixed good; and, I suppose, nobody will now contend that it is possible to do anything satisfactory in medical instruction without an open dissecting-room and chemical laboratory, and without access, on the part of the student, to hospitals, dispensaries, and lying-in institutions. But in order that these facilities for study may assume their just proportions in the curriculum, something more is required than the arrangements we have at present. Either the enforced attendance upon multitudes of lectures must be somewhat relaxed; or the more strict regulation of the practical studies must be superadded to that of the lectures. And it is here that the difficulties begin, with which I have endeavoured to grapple in the Appendix.

I will only illustrate the case here by a very few remarks. Let us suppose a conscientious and pains-taking student, who is going laboriously through his curriculum, as many do, at the rate of four or five lectures a-day, with two or three hours

in the dissecting-room and hospital. From nine in the morning till four in the afternoon, or from ten till five, his attention is thus more or less constantly kept on the stretch; and as he has reading to do at night also, he very soon finds that (unless he falls asleep at lecture) human nature cannot bear so protracted a trial. Now he cannot omit one of his systematic lectures without the risk of missing a roll-call; nor can he fail to be present at the clinical lecture twice a-week without the chance of a similar penalty. He must also, to satisfy the regulations, have done something towards saving appearances in the dissection of the human body; that is, he must have taken a part, and have at least removed the skin, and exposed the muscles. But as regards attendance at the hospital visit, and as regards real effective work in the dissecting-room, the regulations leave him as free as the air. What can follow from this, but that he will give his personal presence where it is absolutely required, and will use the direct observation of structure and of disease as a sort of *ad libitum* addition to his studies, a matter placed at his own discretion to fill up his spare time and exhaust his superfluous energies? I do not say that a really good student will neglect the all-important practical studies, even under these hard conditions; but he has certainly many inducements to give them only the second place in his estimation. In the hospital, in particular, he is directly required by the regulations, to attend clinical *lectures*, at the rate of so many a week; but not a word is said of regular attendance at the visit, or of the necessity of actual instruction at the bedside of the patient,—the only "lectures" which can be made, in any essential particular, to correspond with the idea of practical instruction implied in a clinical course. It is no wonder, under these circumstances, that we hear of, and sometimes read, clinical lectures that have nothing clinical about them. The temptation is well-nigh irresistible to diverge from the tedious but essential labour of collating actual facts, when you know that a large proportion of your auditors are only occasional visitors, none of whom can be in a position to appreciate the toil and care involved in rightly employing your care-

fully gathered materials. But the very vital characteristic of hospital teaching disappears, if conclusions are stated in the short and simple form of dogmatic propositions. True clinical instruction consists in slowly stepping from fact to fact, observing and arranging phenomena so that they may explain themselves, rather than be explained by the teacher: and for this, the casual student has not, and never can have patience. I despair, therefore, of adequately teaching clinical medicine according to the present method of study. The attention of the teacher is too much distracted between the necessity of catering for the casual many, and personally aiding the studies of the observant and diligent few. The interest of one party or other must be sacrificed. Nor would the difficulty be got over by compelling all who at present attend the lectures to give their bodily presence at the visit also. Not to speak of the impracticable nature of such a regulation, in the present state of the medical curricula, it would lead to a degree of crowding and confusion in the wards quite incompatible with genuine clinical teaching. The remedy must be of quite another kind, and must involve, among other things, the subdivision of clinical classes into small sections corresponding with the means at the disposal of the teacher or teachers.* This, at least, holds true of a medical clinique: in surgery there is more to be seen at a distance, and therefore it is *possible* to teach with an approach to thoroughness a somewhat larger number. But of this I have more to say in the Appendix.

* I believe, indeed, that a *large* clinical class is, in the very nature of things, a "delusion and a snare," however able and conscientious the teacher. For myself, individually, I can say, that after some experience, I much prefer a dozen at a time to any larger number.

ON THE MEDICAL ART,

CONSIDERED IN CONNECTION WITH POPULAR EDUCATION.

READ BEFORE THE SCOTTISH EDUCATIONAL INSTITUTE,

APRIL 1856.

I venture to ask, for a little while, the attention of the Scottish Educational Institute to the present state of the Medical Art. I do so, not for the purpose of glorifying my art by a narrative of its improvements, and still less of depreciating it in your estimation by exhibiting its frequent revolutions of opinion, but with the view of bringing under your notice the intimate connection which may be traced between its progress and that of the general human mind; between the origin or the diffusion of sound medical principles, and the state of education, and of morality, in the general community. That such a relation exists, few, perhaps, will be found to deny; but that it is generally understood or appreciated, can hardly be maintained by any one who has studied the art of medicine and its history with that earnest and serious attention which they deserve. We very often hear the art of Medicine spoken of as if it were a thing apart,

subject to conditions and laws of its own, and standing aloof from the general current of human sympathies and activities. Medical men are regarded as a kind of priesthood, drawing their inspiration from some mysterious revelation of traditional philosophy, which cuts them off, for good and for evil, from the aspirations, the knowledge, the follies, the vices of the hour. People rarely reflect that the faults and the virtues of medical men are in reality only their own faults and virtues, modified by accidental circumstances. Yet nothing is more certain, than that medical men are nurtured on the same intellectual and moral diet with the rest of the educated population, and only differ in possessing a technical knowledge of things relating to disease. To accuse the medical art, therefore, wholesale, as some people are fond of doing, is substantially to criminate the age which has produced, and tolerates it. You can no more expect to have a real and an exalted art of healing among a degraded or half-educated population, than you can expect to gather grapes of thorns, and figs of thistles. I will not, indeed, assert, because I do not believe, that it is impossible for the medical art, or for individual medical men, to be to a certain extent independent of the circumstances in which they find themselves; but in the main it is true, that from a barbarous age you can have nothing but a rude and ignorant medical practice,—from a superstitious age, an irrational practice,—from a corrupt age, an immoral practice,—from an age of imposture, a practice of quackery.

Surely this view of the medical art is worthy of your

attention as educators of the people. If I have correctly stated the position of my own profession, you cannot refuse to admit that the responsibility for the future fate of one of the first, one of the most necessary, and one of the noblest of the arts, devolves indirectly upon you. Whether that Art shall be a blessing or a curse; whether it shall be practised purely and independently, or under the slavery of humiliating superstitions and dangerous fanaticisms; whether it shall open men's minds, or close them, to the truth; whether it shall be permitted to learn the lessons of experience, or be chained to the chariot wheels of some victorious philosophic theory; whether it shall be constrained to follow, or allowed to lead, the dense mass of unenlightened public opinion; —are questions the answers to which will be found mainly in the use that you, the teachers of the public and of the future professors and practitioners of medicine, make of your high function. If you, in the exercise of your vocation, bring up a generation strong and robust in thought, informed with rich and varied knowledge, penetrated with a noble self-respect, and therefore charitable and tolerant; zealous for truth, and therefore not afraid of criticism; full of generous human feeling, and therefore devoid of pedantry and exclusiveness;—you may be sure that the Medical Art will not fail to reflect these characteristics. On the other hand, if you sow the seeds of narrow prejudices and small bigotries; if you inoculate the rising generation with the love of word-catching and puzzle-headed false philosophy; if you teach it to prefer sect or party to the claims of truth, the errors or passions of the

multitude to the dictates of conscience guided by reason, the *vox populi* to the *vox dei;*—then indeed you may count on the results of your training of the youthful mind, in a deteriorated practice of the Medical art. For there is no subject of general human interest, except, perhaps, religion, in which poisoned waters of a false or narrow education turn so soon and so surely to bitter fruit as in the art of Medicine, of which Cicero has said that its genuine exercise brings men nearer to the gods than any other.

As I wish neither to magnify nor to vilify my art, so I will now say of the position of the medical practitioner towards society at large, precisely that which I think may be truly asserted, and may recommend itself to your sober judgment without rhetorical artifices or special pleading. I do not venture to assert that the medical practitioner, considered an individual member of society, is either better or more enlightened, apart from professional qualifications, than his neighbours. I would fain hope he is at least no worse; and considering the immensity of his responsibilities, the amount of his unremunerated or partially remunerated labour, the paucity of honours or prizes held out to him as the rewards of a lifetime of exertion, perhaps I might fairly argue that, on the whole, he more than earns his place in our social system, and has a right to hold up his head among the benefactors of mankind. But what it concerns us chiefly to observe at present is, that he is, above all other men of the learned professions, *the child of his age;* inasmuch as he is what he is by its free choice and favour, and not by the force of law, the

voice of the state or of the church, the exclusive preference of sect or of party. I apprehend that you consult a physician or a surgeon not merely because he bears a diploma, has studied in this or that University or College, follows this or that mode of practice, but because, after due consideration, and consultation with mutual friends, you have reason to think he knows better than you do the issues and remedies of disease; while his personal character and professional reputation are such as to command your individual confidence. Having thus determined in his favour, you admit this man to your family circle; you instal him as administrator of some of your most important interests; you intrust him with the most sacred confidences, and furnish him with the most ample materials to make or to mar the comfort of your home. No Spanish inquisitor has greater power to torture, if he so will, your body or your mind; no father-confessor, be you the most devoted child of Mother Church, can hint so many of your secrets—and that, too, without the breach of any formal oath, perhaps without even incurring any serious accusation. This great and inevitable responsibility you intrust, under the pressure of calamity, to a man whose only claim to your confidence is his reputation for special knowledge, for calm and correct judgment, for truth and purity of character; aided, perhaps, by some personal impressions derived from a slight and passing acquaintance, or, at most, from casual association with him in comparatively indifferent concerns.

No one will deny that the trust here pourtrayed is one which ought to be, nay, which must be, exercised

under the influence and control of public opinion. To maintain the contrary is to exempt the art of medicine from that wholesome discipline which all other arts tending to the good of man, undergo; and to which most of them owe whatever adaptation they have to the spirit of modern times, and to the wants of modern society. It is not possible, even if it were desirable, that the practitioner of medicine should now-a-days be a hierarch or mystery-man, as he was in remote antiquity, and is still in savage nations. He cannot always with a good grace retreat from the public inspection even in cases where he has some right to do so, and where the inherent difficulties or technical nature of his duties require a large and generous confidence. Judges and advocates, patients and their friends, popular lecturers, sanitary reformers, and patent pill-venders, betray a most provoking familiarity with the technicalities of medical science, and a determination to tear the veil from its mysteries. Instead of dispensing his oracles in scattered leaves of mystic import, eluding the sense even of the devoutest worshipper, Apollo seeks now-a-days the aid of fashionable publishers, and issues his opinions to all and sundry in octavo and duodecimo volumes innumerable, beautifully printed, illustrated with woodcuts, and with all technical terms carefully explained. The Pythagorean *ipse dixit* no longer avails; the sage must render up to every questioner some reason for the faith that is in him. A hysterical lady has her desk full of prescriptions of various authors; she deciphers their most crabbed latinity, knows exactly what is the base, what the adjuvant

and what the excipient in each; and ends by constructing a theory of disease, and of her own disease in particular, out of odds and ends of science about anti-spasmodics, and emmenagogues, and anti-periodics. If she says in English that she has a pain, she must, as an old physician has wittily remarked, get it back in Greek that she has neuralgia. If she is troubled with megrims, nothing but the doctrine of hemicrania will serve her turn; if her stomach is disordered, the whole theory of dyspepsia must come under review, and bile, or something else equally accommodating, must get the blame of the mischief. If you prescribe any ordinary medicine, you are told that she has been taking that at her own hand for the last three weeks; if you order something more recondite, she says that a great physician in London or in Dublin gave her the same thing two years ago; your only chance, if you wish to show exclusive knowledge, is to ransack the stores of the chemist for the last organic compound with a name of six syllables, or to operate with metals more unfamiliar than even Cerium, and Titanium, and Palladium, which are all of them down in her vocabulary long ago, and about which she knows —— just about as much as you do, or rather more. She has tried Homœopathy, and knows exactly the theory of the action of Arnica 20; she has tried Hydropathy, and can tell precisely how the capillaries of the skin react upon those of the mucous membrane, and how the peccant matter of the blood is to be eliminated without the use of such poisons as rhubarb and cream of tartar. Mesmerism has come to her aid, and she has got relief from

it for a time; besides, a clair-voyant in Paris has given her invaluable information about the neurilemma of her great sympathetic nerve, and made her aware of many sufferings which no physician had previously revealed to her, but which she has had for ages without knowing anything about it. In short, she is a very learned lady, and, like an old bird, is not to be caught with chaff.

This daily increasing tendency on the part of the public to know, or think they know, the grounds of medical opinion, is not, however, to be disposed of by a caricature. It is a grave and indubitable fact, and must needs be dealt with as such, whether we think it a movement for the better or for the worse; whether, in particular instances, it proves an obstruction or an assistance to the mutual good understanding of physician and patient. It is plain that against a tendency so inherent in human nature, no mere use of Latin prescriptions and scientific terms can ever prove an effective or permanent barrier. No titles or licences can convey a monopoly in dogmatism; and, happily for the moral health of the profession, its more learned and esteemed members give no encouragement to bombast, and are but sorry practitioners in the art of mystification. The real adepts of the present day have little temptation to "stand upon the ancient ways" and cover the deficiencies of their arguments with the mantle of Galen and Avicenna. The tide has set in for novelty, and those who are anxious to take it at the flood will find that fortune generally favours, for the time at least, all persons who sedu-

lously proclaim a new doctrine, and treat with studied contempt the trammels of authority. From Morrison's pills to Homœopathy, from Dr. Samuel Dickson to Professor Holloway, from the water-cure to the latest Palingenesietherapie or Kinesitherapie of our transcendental friends across the German ocean, the cry is still that old things are to be done away; that a new revelation of medical truth is to supplant the science and the traditions of centuries, and that the reign of Hippocrates, of Sydenham, and of Cullen, is at an end. When confronted with the strongest statements of personal experience, or the best established facts and principles, and asked to reconcile these with the particular new system which happens to be in the ascendent, ambitious innovators reply, after the manner of Sganarelle in "Le Medecin malgré lui" when charged with misplacing the liver and heart,—"Oui, cela étoit autrefois ainsi, mais nous avons changé tout cela; et nous faisons maintenant la medecine d'une méthode toute nouvelle." From this secure, or at least not very easily assailable position, of absolute and entire irresponsibility to medical traditions, our would-be medical lawgivers discharge all sorts of missiles at what they call "old medicine;" and having improvised a system, unencumbered by antecedents and reckless of consequences, they find great comfort and not a little sustenance in hunting for flaws in the ancient doctrine. Well! well! let them live their day. They are the woodpeckers of science. The grand old Hippocratic oak will outlive them; the insects that nestle in its bark will become their lawful prey.

But can the art of medicine, rooted as it is in the past, remain calm and unmoved in the midst of these vagaries of the popular sentiment? Are we who practise that art to maintain a contemptuous indifference to the effervescence which is going on around us in the public mind? Or are we rather to make a bold appeal to intelligent public opinion, and to seek for ourselves and for our art a position more elevated and secure than hitherto? Clearly, in either course there is danger: but the one is simply impossible; the other only difficult, and, because difficult, full of hope for the future to the man who loves, and has faith in, his art. No man of noble instincts, and of genuine courage, can hesitate for a moment between an advance amidst hostile opinions, which call him into contact, perhaps even into collision, with the stirring movement of the human mind; and a retreat upon mere authority, which leaves him high and dry on the rock of antiquity, but removes him from the pleasant and warm current of human sympathies, as well as from the boisterous surges of human passion. In medicine, as in all other arts which are closely interwoven with the delicate fabric of life, which minister directly to man's comfort, happiness, existence, an isolated position is an impossibility. But in this very fact lies hid a difficulty, which, when overcome, will constitute the real triumph of medicine. "The physician must not only be ready himself to do what is right" said Hippocrates in the close of that noble first aphorism of his; "he must also bring it about that the patient, and those who attend him, and all manner of external influences,

co-operate." The physician is no mere lawgiver; he is a man dealing with men, and not permitted even to choose the objects of his ministrations, as most of those do who decry him and his business. He has to accomplish his ends, not by abstract rules of art, but by the quick intuitions of an intelligent and sympathetic nature, with experience and learning to guide it. He cannot afford to lose sight of a practical conclusion amid the mists of theory; and must often avail himself of imperfect knowledge, and even of prejudices, when he is satisfied that their tendency is not mischievous, but in the right direction. In every case it is his to see that the right thing—that is, not the best thing in the abstract, but the best under the circumstances—is done. He cannot therefore, in all cases, explain the grounds of his judgment, even to those who are well informed in the principles of medical science; much less to those who only fancy themselves to be so. To these he must assume the manner of a dogmatist, and demand that implicit confidence to which his character, intelligence, and skill entitle him, and which he will generally receive, if he seeks it not from the love of mystery, but from the necessities of his position. But to possess this confidence in a high degree he must be on good terms with his fellow-men, and must have acquired the habit of seeking and finding the way to their hearts, as well as to their heads. It is plain that the man for this work must be a man of humane and generous, not of hard and angular nature. He must be an integral part of his age, and must yield neither to the intellectual con-

ceit of appearing above it, nor to the licentious sophistry by which some unworthy men contrive to accommodate themselves to the time and place in which they live, by denuding themselves of everything personal and characteristic, which might happen to give offence. The true physician must enter into the aspirations of his time, combat its prejudices, examine its fair and reasonable judgments, profit by its hard-won experience. But he must, if he would be a true physician, be the representative of its wide and varied humanity, and not of its sectional or party feelings, still less of its quackeries, its delusions, and its cant. Now, to lay hold upon the sympathies of the present age, with its wide and varied, though superficial culture, with its restless intellectual activity, and its expansive beneficence, is no mean and no easy task for the medical art. And to do this without the aid of superstition, or of a false and plausible philosophy by which to explain all medical mysteries, is a task for each individual practitioner, well worthy of the best. I do not believe that we need shrink from this great ordeal, on account of anything in the nature of the medical art itself. But it is reasonable to entertain a fear lest, by the imperfect education of medical men on the one hand, and still more, of the mass of the population on the other, the day may yet be far distant when an enlightened and reformed art of medicine shall be established in full sympathy with an intelligent and sound public opinion.

It is much to be regretted, for the sake of the public as well as of the medical profession, that the use of

remedies, and the nature of the benefit to be expected from them, is not somewhat more clearly understood, and more carefully studied by those chiefly concerned. That the most gross and absurd ideas are abroad in the world upon this subject cannot be doubted by almost anyone who has undertaken the responsibility of treating disease. Many persons appear to suppose that the cure of a disorder under the hands of a physician ought to require an expenditure of his resources invariably in proportion to the violence of the disease. "*Ad extremos morbos, extrema remedia.*" Nor is it ever a popular view of the subject that the physician should honestly believe and frankly confess his conviction that nature should have her own way. Patient and friends are apt to be equally dissatisfied not only unless *something be done*, but unless it be done brilliantly and suddenly. Under these circumstances, alas for the poor doctor who knows the truth and is simple enough to recommend waiting on nature! The patient knows better. Somewhere or other there is a screw loose; it is the doctor's business to tighten it, and then the machine will go on as before. We expect the human body to be set right when it is out of order on the same principles as a steam-engine or a watch. We look to the physician not only to understand all the internal machinery, but to have an absolute control over it. This would be quite justifiable, quite correct, if the physician were the engineer or the maker of that complicated piece of mechanism with which he has to work; if besides watching its movements, and oiling its wheels, and freeing it from extraneous clogs

and impediments, he could also stop its pulses at pleasure, take it to pieces, renew lost, and patch up worn-out parts, and then set it a-going again as if nothing had happened. This power, and this alone, would put the physician on a level with the engineer.

It is now upwards of 2000 years since the Father of Physic embodied a great truth in the striking expression, "Our natures are the physicians of our diseases." Yet this truth, accepted and acted upon by almost all great physicians, has generally been scouted by the public at large; and the whole tribe of quacks have aided and abetted them in despising or distrusting the healing influences of nature, and pointing the finger of scorn at physicians who knew better, or who did not choose to pander to popular prejudice. What could follow from this, except a system of over-drugging on the one hand, and of inert practice, disguised under the pomp of apparent science on the other? That such results have followed, we all know. Only the other day I found in a Homœopathic Journal one of the partizans of infinitesimal globules accusing ordinary physic of being a system of scientific trifling with disease, using only palliative remedies, and based on the rule of "let ill alone;"—the very same charge, in different words, which Asclepiades of Bithynia brought against the Hippocratic practice when he called it a "waiting upon death." Compare with this the fulminations of hydropaths, gymnasts, *et hoc genus omne*, against the "drug-doctors" with their poisonous and deadly means of cure; and it will be seen, that in whatever direction medicine may move, it has little

chance of escaping the generous and highly disinterested criticism of those who, as Hippocrates said, "make an art of vilifying the art."

If any one shall assert that the medical profession itself is partly to blame for these misconceptions on the part of the public, I shall assuredly not go out of my way to deny the imputation. Indeed I have already pointed out that the medical art is, in every age, and almost of necessity, formed and moulded more or less in accordance with public opinion. I may *think* what I please; but I must, after all, *practise* to some extent, as you, the patient, please. At least, I must refrain from prescribing what is specially abhorrent to your prejudices; and unless you are more than usually inaccessible to considerations founded on your natural good opinion of yourself, I may possibly succeed in turning to account our mutual good understanding; for it will not be difficult to persuade you that in patronizing my little pill, or my stupendous system, you show a great intellectual and moral superiority to the vulgar herd who are content to be treated as their forefathers were treated before them, or nearly so.

It is a well-known fact that quackery finds its victims most readily among the "honourable of the earth;" the wealthy, the highly educated, the refined, the self-indulgent; all those, in short, who believe themselves, rightly or wrongly, to be a good deal better than their neighbours. In general, it will happen that a strong-minded, or a prejudiced, patient will rule his doctor as much, at least, as his doctor will rule him. And whether the practice resulting from this reciprocal in-

fluence will be better or worse than it would have been under a strict medical autocracy, will depend very much less upon the degree of intelligence than of candour and moral rectitude which enters into the copartnery. Now, you have only to consider for a moment this necessary dependence of medical practice upon public opinion and public prejudice, to understand the great temptations to which it exposes the virtue of the individual medical man. He is well aware from the first, or soon comes to know, that the path to honourable success is both long and toilsome; while, by a certain amount of adroit management and of jesuitical conformity, he will oftentimes be able to make a sudden leap into fame and fortune; and that in such a case success will, like charity, cover a multitude of sins.*

There is only one cure for these aberrations of the medical profession, and it is to be found in the cultivation of a better understanding, and a more genuine moral sympathy, between the public and their medical advisers. Even as it is, the man whose head and heart are sound, and who is neither conceited nor per-

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* The reader of Goethe's "Faust" will remember, that in the strange scene between Mephistophiles and the student, when the former dons the doctor's cap, and reads a lecture upon the capabilities of the different professions, medicine is distinctly in the ascendant in Satan's good opinion. And it must be admitted that this great poet, who has given to literature the most perfect of devils, presents his studies of human wickedness with a minuteness and impartiality worthy of the spokesman into whose mouth they are put.

verse, is generally saved by a certain wholesome instinct from the clutches of the rapacious pretenders who prey upon the most grossly ignorant and the most highly educated alike, when suffering under bodily disease. And in like manner the physician who keeps his honour untainted, is pretty sure in the end to have his merits recognised. But this consummation would be greatly assisted, were men generally aware how much more of moral, than of intellectual, or even professional excellence, is necessary for the irreproachable performance of the physician's daily duties. In particular it ought to be known, that the desperate search after a *remedy*, at any cost and under any conditions, is utterly opposed to the cultivation of a sound moral relation between the physician and his patient. In the latter, it begets a habit of dissatisfaction and fault-finding if the cure is delayed. In the physician, on the other hand, it most directly encourages that fatal tendency to over-drugging, or of deception under the form of *placebos*, from which we have seen the recoil into homœopathy and countless other systems of magnificent nonsense. All this might be avoided if people could be made aware that the real value of medical services is generally in the inverse ratio of their pretension and self-assertion. For the cure of diseases belongs in general, not to the physician, nor to any earthly power, but to the supreme Artificer, who rules all the action of the bodily machine for life or death, for health or sickness. The physician stands by, the earnest watcher of nature's process; he removes whatever of external hindrance is in the way, and endeavours

by simple, mostly palliative remedies, by regulated diet, by attention to sleep and waking, and to the due performance of all the physiological functions, to rescue the patient from those dangers to which he would inevitably expose himself when unassisted, and when suffering under the vitiated tastes and feelings that accompany disease. He relieves, moreover, the troubled mind of undue anxiety, and, on the other hand, is careful to direct the fool-hardy and thoughtless sufferer by the path which nature points out to him; he guards the man wrapped up in the daily toils and unhealthy drudgery of life against the injury to which his anxiety for his family, or his avarice for himself, are exposing him; he steels the over-excited nerves of the hypochondriac or hysteric by wholesome medicine for the soul as well as the body; he preaches a solemn warning to the unhappy voluptuary, by holding before his view the precipice which he is approaching; he foresees the end, whether for good or evil, and prepares for it by counsels of hope, tempered with caution, or of resignation without despair. And even when in the discharge of his duty he has foretold the inevitable fate, when he knows that the irreparably damaged organs are incapable of supporting much longer the fluttering pulses, and feeding the smouldering fire of life, the skilful and humane practitioner will take care to cherish and turn to the best account the small and frail remainder of those mysterious powers which are soon and surely to be returned to their Giver. In the worst event, he can often keep the actual passage to the grave from being embittered

by positive bodily pain, or still more by that mental restlessness, which those alone can conceive who have experienced or witnessed the craving for human help, even amid the deadly fear that it may be unavailing.

All this the physician can often do, not the less effectively that he does it unassumingly, that he does not vaunt *his own* remedy, *his own* peculiar method, *his own* infallible or precious specific, or that of his sect, like the charlatan or the enthusiast. There are in fact, or there ought to be, no such thing as *sects* in physic at all. The methods of practical medicine have been radically the same in all ages and times, nor is there any essential discrepancy, other than in matters of detail, between the earliest and the latest. In the writings of truly great physicians we find no disposition to compress the spirit of practical medicine into one or two dry and unprofitable formulas; no vaunting of single remedies or prescriptions; no presumptuous affectation of superiority to the habits of thought, the knowledge and the experience gathered for and transmitted to them in the progress of centuries. Such men have always used the materials at their hand with the tact of men of the world, and with the enlarged views of men of science; and by that habit of just and clear intuition which can never be analyzed and reproduced through any education or any system, they have given to the world and to their successors an example which in some instances has not perished with them. But it is important to observe that, in the case of all the greatest masters of the art, the movement they communicated to their age was of the nature

of an example, almost an inspiration, not of a body of doctrine, or an all-embracing philosophy of disease and of cure. This is eminently true of Hippocrates, of Aretaeus, of Sydenham, of Mead, of Heberden, of Corvisart, of Laennec, of Hufeland, of Abercrombie. With these men systems and philosophies were quite of secondary importance. Their business was to leave an example of honest work and careful observation, not to impose a yoke on the minds of men. It would seem, indeed, to be an essential law of medical history that no dogmatic exposition of mere opinion or speculation can hope to live long apart from the personal influence of its propounder. The doctrine of Galen is a great exception; but then Galen lived in the most slavish and corrupt age that the world has seen. His system endured because, under the imperial despotism of Rome, men soon ceased to originate thought; while every active element of civilization was fast crystallizing into the form of arbitrary laws, as a necessary protection against the sea of barbarism which was surging even into the courts and palaces of the Cæsars. It may be truly said, in this case, that the exception proves the rule.

I have said that the spirit of true medicine admits of no *sects*. It is, in the most genuine sense of the term, absolutely catholic and free. It is wide enough in its boundaries to embrace every real utterance of free thought, and to welcome cordially all who are content to follow honestly and cautiously the teachings of nature and experience, without desiring to trammel and bind up the spirit of knowledge in

chains of their own making. Unlike the professions, either of the church or of the law, it appeals to no human standard of orthodoxy, and acknowledges no authority except that of God's own truth, as it appears written in the book of nature. The days are long past when it was necessary, according to the inimitable satire of Molière—

> Essere in omnibus consultationibus
> Ancieni aviso
> Aut bono
> Aut mauvaiso.

The days are past when sages decided questions of practice according to the fundamental propositions of Aristotle's logic, applied to Galen's Anatomy and the Aphorisms of Hippocrates the divine. There is now no appeal but to nature and fact in the determination of disputes. All opinion, all dogmatism, all doctrine in medicine, counts for the opinion of the individual, the dogmatism of the individual, the doctrine of the individual: no more. And no opinion is sufficiently wayward or irrational to shut its possessor out from the catholicity of medicine, provided he does not shut himself out by attempting to erect his opinion into the standard of a sectarian distinction, or by assuming that it contains the whole of medical truth; by setting up, therefore, on his own behalf, that worship of formulæ, that standard of orthodoxy, which true medicine repudiates as opposed to its essential freedom.* With

* If a man says to me—"I have reason to think that so and so is true, and here are the facts on which I found my inference"—he is entitled to respectful attention; and, if the facts be important and his statements credible, to careful investigation of

respect to all such sectaries, indeed, modern medicine is extremely intolerant; but it is on account of their own exclusiveness, not on account of any real narrowness in the spirit of medicine. It excludes them—it cannot but exclude them—from its sympathies; but it excludes them because they claim to exclude it, to give it the law, to abrogate the past, to dictate to the present and the future.

The spirit of modern medicine acknowledges no orthodoxy; it can therefore by no means acknowledge any heterodoxy. Its followers must of necessity be eclectic in their mode of study; they must not accept one age, and deny another; accept the present, and deny the past; accept the Greeks, and deny the Arabians; accept Cullen, and deny Boerhaave. The cri-

his opinions at my hands. But if he says to me—"The *only* true law or the *only* effective practice in medicine is so and so; and all who resist this are committing murder by wholesale;" if his whole writings constitute a continuous libel upon the past, and a presumptuous anticipation of the future, what answer can be given to such an outrageous form of appeal? The only answer is to disown it in the name of the medical art; not as a heresy of opinion, but as an offensive utterance of base calumnies. The writings of Hahnemann are, as I have shown in the "Edinburgh Essays" for 1856, fully entitled to the description just given; and (setting aside all the absurdities of his dogma), it is a strange proof of the ignorance and perverseness of the public judgments in matters of medical science, that a character so utterly worthless as that of this notorious adventurer should have enlisted the sympathies of any considerable part of mankind. It is of a piece with this idolatry of the man who sold borax under a false name, that the deluded partizans of the sect should now-a-days be ready to discover all manner of excuses for the most frightful forms of medical immorality, even when proved beyond dispute in a court of law.

terion of medical truth is not the present against the past, or the past against the present, but the present added to and harmonized with the past. We are accused of pushing this conservatism too far. It may be so in some instances; but that it is so in general I think no impartial inquirer will assert who considers that this conservative spirit is the sole barrier against the flood of quackery, imposture, and fanaticism, to which the very freedom of medicine necessarily lays it open, but from which no restrictions in the present day could possibly protect it. These things are the price that we pay for *Freedom;* and no man who knows the value of Freedom will grudge the price. But the very absence of restraint upon individual opinion imposes in a peculiar manner upon the age the right education of that individual opinion.

I return, therefore, to the position from which I started; that on the sober, truthful, and at the same time free spirit which may pervade society at large, must depend, to a very great extent, the liberation of the medical art from those vices which uniformly beset it in barbarous, ignorant, or immoral ages; and that on the tone imparted by this and other similar institutions to popular education, it will depend whether Society performs its part to Medicine, and Medicine to Society. That Medicine shall not advance, is impossible and inconceivable; but it may be subject to trammels and checks from the ignorance, or to bigotry and error from the wilfulness of its professors, from which they can only be saved by an enlightened public opinion; and this it is your duty, as educators of the public, to form.

ON THE STUDY OF MEDICINE AS AN ART.

AN INTRODUCTORY LECTURE TO A COURSE OF PRACTICE OF PHYSIC.

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HAVING indicated the plan of the course, I wish now to offer you a few condensed observations as to the spirit in which you should enter upon the studies of this class, and the difficulties and dangers which you are likely to encounter in becoming accomplished Practitioners or even accomplished Students of Medicine.

Remember that the art of medicine is one eminently requiring the exercise of a calm judgment both as to its means and its ends. It is an art which has in every age been vitiated by the multiplied and lamentable errors of presumptuous dogmatism, honest ignorance, and misdirected ingenuity. The apparatus of nostrums, of vaunted specifics, and would-be-universal remedies, is so great as to make it surprising that almost any disease should resist such a multitude of means. You will find it difficult or impossible, at first, among the discordant testimonies of various ages, times, and per-

sons, to see your way clearly in the labyrinth of opinion; and you will, if I mistake not, be much inclined to throw aside all human evidence as interested or fallacious, and retreat from possible or probable error into universal scepticism as to the therapeutical part of medicine. If you are disturbed by this tendency, so hostile apparently to the true function of the physician, I shall not oppose to it any direct argument. It is necessary for you to doubt, in order that you may come to believe; and *believe you will*, so soon as you again resume your inquiries amid the anxious and absorbing responsibilities of medical practice, unless you determine to smother both doubt and belief in a most culpable indifference towards your patients and yourself. The history of multitudes of generous minds—I might say of all generous and strong minds, includes the story of much and frequent doubt. I desire, therefore, by no means to discourage in you a rational scepticism. Only, do not generalize it into a formula: do not say to yourselves "I doubt *everything* I have been taught;" and if you at times hear the evil whisper of Pyrrhonism, do not rest in it. Let your doubt be followed by renewed inquiry; let the anxious craving for secure truth never rest in you. I do not think you will in the end be disappointed; and it is far better that you should begin practice with a few remedies and principles, of which you believe you have sufficient evidence, than with a whole chaos of formulæ which stand equal and undistinguishable before your judgment. I do not hesitate to confess that I greatly respect the sincere spirit of scepticism, when accompanied by earnestness

and generosity of character; and I do not think that under these circumstances it is at all likely to mislead you.

It is quite true that there is a class of apparent sceptics in medicine in whom the understanding and the judgment, if not the moral sense, appear to have suffered by their regarding everything from one point of view. There are men who view all things as alike true and alike false;—to whom the venerable dogmas of antiquity, and the passing theories of the hour, are nothing but convenient and empty formulas—convenient, indeed, chiefly *because* they are empty. But these men, though always doubting, are also perpetually interfering; to the great detriment of nature's beneficent operations. Their fertile imagination readily supplies a name for every disease, and a remedy to meet every name. The gap between their real belief and their assumed principles of conduct is too wide to be filled up; and they have long ceased to desire that it should be filled up. The genuine doubter is anxious for light and oppressed with responsibility; but these men find comfort in the instability of medical theory, chiefly because, as "practical men," they make a point of adopting every new fashion in therapeutics; which they do, not indeed with conviction, but without serious self-condemnation. "After all," they will tell you, as an excuse for flattering the prejudices of their patients —"it is of little consequence what you do—nature takes her own way, and patients get well as soon under one treatment as under another." An excellent logic for the lazy and incapable; and not less so for

the confirmed charlatan. Goethe has, with admirable knowledge of the world, put this sentiment into the mouth of Mephistophiles, that subtlest of poetic fiends, when he represents him as donning the professor's robe, the better to assail the virtue of the student. The sentiment is indeed truly devilish, when acted on in the spirit I have indicated. Let it not, then, be yours. For if it were true that all remedies and all modes of treatment were upon a dead-level of inefficacy, then indeed there would be only one course open to you and to me—to retire together from the care of the sick as a profession. But it is not true, and those who put forward this opinion do so, commonly, as a shield for their own indifference or carelessness. The circumstances under which one treatment is better than another are indeed difficult to follow, and no mere dilettante trifling with medicine, or reliance upon hearsay evidence, will enable you to appreciate them. But at the bedside many things become clear which are obscure in the schools, or amid the wrangling of authorities, in the clouded atmosphere of opposing systems. Do not despair, then, because you cannot generalize all that you hear into a consistent whole. There must ever be conflicting opinions, so long as men carry cherished prejudices into the domain of fact; for men are always apt to forget that nature has an inexorable logic of her own, which has no respect whatever for finely elaborated hypotheses. Be you, for your part, content, for a while, with small fragments of truth; and, in the end, you will find they are not small, but of very vast importance to your own happiness and that of your neighbours.

Those who perpetually insist upon the uselessness of medical practice, appear to me generally to forget one thing. (I refer at present to the honest doubters, and not to those who make their doubts a reason for succumbing to all fashionable theories and new remedies.) Honest men, who feel strongly the uncertainty of medical science, forget that out of that very uncertainty arises the occasion for a skilful guide in sickness —not necessarily to apply remedies; perhaps, in the majority of cases, to prevent their being improperly applied. For your doubter, when the fever-fit is on him, is the very man who will torture himself to death under the idea that he has not done what it is right for him to do. Is it nothing, under such circumstances, to have the moral support of a calm, disciplined, well-balanced mind, which can apply itself to all the circumstances of your case, measure its danger, calculate, so far as may be, its issues, and prepare you for death or for recovery? They are greatly in the wrong who disparage the physician for doing nothing. He well knows that to do nothing is often his highest art; and regrets to find himself, in obedience to the anxieties of friends, or of the patient, occasionally lending his sanction to practices which his better judgment would lead him to avoid, or to regard with suspicion. Have you ever considered what a responsibility is implied in doing nothing, when fear-stricken humanity calls out for succour? How are you to meet that responsibility if you have not the confidence of your patient, to say nothing of confidence in yourself? How are you to possess either the patient's confidence, or your own,

unless you have carefully considered, and honestly doubted, and out of doubt and serious reflection have evolved a well-considered course of conduct.

It is the characteristic of quackery, as it is of routine practice of all kinds, never to doubt; and this from two causes. In the first place, with many persons, absence of doubt is merely absence of thought. In the second place, it is not profitable, in the direct and tangible sense of the word, to indulge in sceptical reflection. It is not the less, however, your duty to follow out such negative trains of thought. It is a duty imperative, difficult, dangerous; but one which carries with it its own great reward, to a well-educated and honest mind.

While you continue to doubt, then, of many things in physic, you will take care never to *rest* in doubt. Do not suppress the spirit of scepticism; but cultivate by the side of it the habit of earnest inquiry, searching analysis of evidence, strong and determined effort after truth. It is indifference and feebleness of character, or something worse than both, which render doubt injurious to the practitioner of medicine.

A far more noxious error than scepticism is credulousness. The spirit of doubt, besides being the natural portal of sound belief, is essentially honest in its origin; and in its results it is at least not *positively* dangerous. But lightmindedness, or easiness of belief, if not the offspring of dishonesty, is a habit that leads by a short and speedy route into the snare of quackery; and the world is very apt to be with the credulous man, and against the doubter; for which reason the

whole host of routine practitioners, not to speak of arrant quacks, are careful to maintain a large appetite for empirical novelties in practice, as well as for specious and popular theories of disease. For these reasons I am anxious to warn you against entertaining too readily either the one or the other. But there is no specific against the credulous temper except the calm and pure love of truth, which should therefore be cultivated at an early period, before "the cares of this world, and the deceitfulness of riches, and the lusts of other things entering in," have time to choke this good seed and to render it unfruitful.

There are many forms of delusion both in theory and practice, the reception of which depends evidently on this lightmindedness and credulous carelessness in the search after truth. Some of them you may know by their pretensions to exclusive originality; others by the militant spirit in which they oppose themselves to the whole body of recorded medical opinion; others by the vaunting and puffing of a particular name which heralds their introduction. But too many errors also come under the modest guise which truth herself generally assumes, to allow of any absolute rule being laid down for their detection.

There are in the present day many pseudo-medical systems, each of which presents certain alluring peculiarities to those who are not possessed of the stability of mind which springs from a proper intellectual and moral discipline. I might direct your attention to each of these in turn, pointing out its peculiar fallacy, and its relation to the medical art. But this would

be to presuppose your acquaintance with that art itself; a supposition I am evidently not at liberty to make at this stage of our mutual acquaintance. Besides, I have always been of opinion that in medicine, as in all things which are of positive and real interest to mankind, it is better to *displace* what is false and fleeting by the sedulous teaching of that which is permanent and true, than to fritter away time and opportunities that ought to be devoted to the advancement of knowledge, in superfluous medical controversy. Those who indulge in frequent polemics are too often persons who are pretty well determined not to be convinced; and I cannot imagine a more ruinous habit for the honest medical inquirer than to be associated early in his career with this description of persons. On the other hand, it would be wrong not to admit that there are cases in which medical controversy, like all other controversy, has been of material service to the cause of truth. It is so then, and then only, when men of cultivated minds have brought them to bear upon the discussion of great principles; and where either mutual respect has prevailed between the combatants, or where on one side, if not on both, the search after truth has been the paramount and distinguishing motive. I shall not, then, condemn controversy; but there is "a time for everything under the sun." I should deeply regret it, if in after life you recalled this course of lectures as having fostered, to any considerable extent, those jarring and disputatious elements which lie hid, I suppose, in every human character in greater or less measure. I would rather have it said that I had

aimed at telling you simply and clearly what I thought to be true and useful; giving you at the same time good and substantial reasons for those things which I felt bound to teach, but trusting to your own judgment, when matured by experience, for the overthrow of all false systems and general theories. The struggle with quackery and falsehood would be hopeless indeed, if it were necessary to attack the monster in detail; for each hydra-head, when removed, seems only to become the parent of another, or haply of a multitude worse than the first; and so long as medicine is imperfect and obscure, so long will there be found men willing to play fast and loose with its most recondite principles, and to hold out, to such as will trust them, the most unwarrantable expectations. Something, however, may be done to inculcate from the first such habits of thought as may dispose you rightly to apprehend the limits of medical truth, and thereby lead you to discriminate between those plausible systems which everywhere seek to arrest your attention, and that less obtrusive, but more valuable body of medical doctrine which ages have combined to build up; which is ever being revised and reformed, but which has hitherto defied the spirit of revolution.

What is, and what is not, the true practice of medicine? My answer to this question is, of course, the entire series of instructions that I shall have to address to you from this place; but I may endeavour to comprise here, in a few sentences, some of the more important characteristics of that medical teaching which, in my opinion, best deserves your attention.

In the first place, the true medical art refuses to be compressed into a formula, imprisoned in an epigram or an aphorism. As the duty of the physician consists of nothing less than the application of the whole faculties of the human mind, and the entire resources of science to a vast variety of dissimilar problems, it would be strange indeed if any single remedy or any single form of words exhausted his beneficent powers. He has for his purpose to do good to the frail body of man under a multitude of complex conditions; and to enable him to relieve it from the ills which oppress it, "the thousand natural shocks that flesh is heir to," he has at his disposal an armoury of means almost coëxtensive with those which beneficent nature has placed at the disposal of man for his support and nourishment. For it may be said of almost everything that works upon the body, that it has a working for good as well as for evil; and that even the most powerful of poisons, when applied as the instructed hand can alone direct them, become the most energetic of remedies. In treating an individual case of disease, however, the wise physician does not limit himself to such remedies; heat and light, air and water, food and clothing, all the natural restoratives of the body, all the habitual stimulants or sedatives of the mind, become the weapons with which he makes war against those evil influences that weigh upon the functions, and of which it is his duty to investigate and to remove the causes, to foresee and to avert the results. To a man who takes this view of his art, medicine is a high and great vocation, giving scope for all the

powers of the mind, to all the emotions of the heart. With what an indescribable scorn must such a man look upon those who would reduce his art to a set of technical rules; stamp it with a nickname; degrade it to a mystery and a trade. How must the true physician despise the attempt to catch the ear of the fickle public by any exclusive practice, by any nostrum or any form of words peculiarly his own! With what calm and assured confidence will he take and preserve his high position; secure that while systems and nostrums have their day, the art of medicine remains for ever!

In the second place, the true medical art is too great and too free to be placed under the protection of a great name, or confined within the boundaries of a sect. This, indeed, follows from what has just been said. For, if no system or special method of cure can be said to impose limits upon the function of legitimate medicine, so no individual, or series of individuals, can fairly pretend to have been the originators or exclusive possessors of the gift of healing. The history of medicine is in this point of view a truly instructive study; for it shows that while many strong minds have attempted to bind up medicine into many permanent systems, the expansive spirit of science has soon burst the fetters imposed on it, and laid in the dust, one after another, those systems and those reputations which have been for a time regarded as all-sufficient.

The readers of Montaigne will remember a celebrated passage, in which this instability of medical systems is made a reason for an all but universal scepticism as to

the resources of the medical art. A similar theme has been a common one with satirists in all ages; and every vender of a quack nostrum, now-a-days, knows well how to declaim against the astounding contradictions of medical doctrine. Rightly considered, however, these varieties of opinion, these fluctuating quicksands of medical hypothesis, only show the well-known tendency which the human mind has to outstep the boundaries of its real knowledge, and to indulge in unlimited speculation where that knowledge fails. In the fact, that medical science leaves much ground open to dispute, you have a sufficient cause for the crowd of contradictory theories which arrest the attention of the superficial inquirer. The true art of medicine, however, underlies all the fluctuating doctrines of its individual professors; nay, it would not be too much to say that it owes little or nothing to those doctrines, which are in most cases rather to be compared to the parasitic plants that encumber the bark of a venerable tree, than to the juices which nourish its leaves and and fruit. The true art of medicine is rarely to be found in the writings of those who have aimed at building it up into a system; for, too often, the clamorous advocates of specious fallacies monopolize the field of medical doctrine, to the exclusion of the really wise and sagacious men by whom the art has been silently advanced. Truth to say, the great men of medical practice are often not the great writers and great talkers. Our profession is full of "mute, inglorious Miltons," men who never penned a line in their lives, perhaps, in any medical journal or

book, but whose influence for good is felt over a wide circle of professional brethren. Nor are "village Hampdens" wanting to us; men who in the obscurity of country practice have studied deeply and thought accurately, and who, though not famous beyond the circle of their acquaintance, have contributed to mould the mind and form the character of a whole generation of local practitioners, and thereby effectually to advance and diffuse sound principles of art. But even among those who figure in the history of medicine we often find that "the race is not to the swift, nor the battle to the strong;" and it is very certain that the true history of medicine as a practical art never has been, and never can be, written. We know the story of medical dogmas; but of the real sources of our traditional experience and accumulated science we often know next to nothing. The best and soundest of the Hippocratic books, the "Prognostics," is founded upon a collection of clinical records and maxims whose origin is lost in the mists of antiquity. The stupendous industry and enormous pedantry of Galen have impressed, for good and for evil, the whole history of the middle age; but the far greater and truer men who originated the pictures of disease we find in Aretæus and Cælius Aurelianus have been so neglected by posterity that we are ignorant of the very place and time wherein they lived. And so, in comparatively modern times, we find the page of history full of the renown of impudent and drunken charlatans, like Paracelsus in the 16th century, and Brown in the 18th, while many greater, honester and better men are dismissed in a single sentence, or are forgotten altogether.

On the other hand, while the history of medicine has often been unjust to individual fame, it is impossible to deny that it presents a cheering spectacle as a whole. Medical dogma may have been fluctuating and uncertain, but the great names and great principles which have for the most part guided the course of practical inquiry, have nothing about them of which the careful and conscientious student need, even now, be ashamed. It is, indeed, impossible to contemplate without wonder, without reverence for the human mind, without gratitude for the patient application of so much conscientious effort, the steps by which the science and art of medicine have become what they are. That extraordinary combination of qualities, both moral and intellectual, by which the Greek physicians were enabled, in the first ages of European civilization, to burst the shackles of superstition, and to place the science of medicine upon a foundation of anatomical and physiological, as well as clinical knowledge, has happily stood out as an example to all time. The science of medicine has never since stood still; if, in the darkest of the dark ages, the great shadow of Galen somewhat stood athwart its progress, we owe it, on the other hand, to the strong and positive dogmatism of that great man, and to his almost Herculean labours, that medicine, unlike the other departments of human knowledge, was neither overwhelmed by the torrent of Arabian barbarism, nor absorbed into the misty atmosphere of mediæval metaphysics. Throughout the middle ages we observe medicine constantly struggling, and not unsuccessfully struggling, to claim that position as a liberal art, and

as a science founded on experience, which had been secured for it in Greece by Hippocrates. Its pretensions were among the first to inspire the Saracens with respect for literary culture; and in return for a host of new remedies which they brought from their eastern home, it inoculated them with that civilization and that love of letters which they had done their best to destroy and deface. The Saracenic medicine was for ages the chief element of the Saracenic culture and civilization. In like manner medicine, almost alone of all the sciences, refused to acknowledge the all-powerful sway of the church, and to be incorporated into the scholastic theo-philosophy; nay, it became, long before the general revival of letters, one of the most potent instruments by which the human mind was led back to the study of nature on the one hand, and to the records of antiquity on the other. And so, in its subsequent career, medicine has ever claimed a highly independent position, worthy of a liberal art. All attempts, however laborious and well-meaning, to bind it up into a permanent system, have followed each other to oblivion; but the great masters of observation, those teachers who have been the "ministers and interpreters of nature," have their names written on all our hearts. Let the splendid reputations of Ambrose Paré, Vesalius, Harvey, Sydenham, Hunter, Baillie, justify my assertion; compare their present fame, with that of Fernel, or Sennert, or Riolan, or in later times Brown or Broussais (each in his own day of at least equal if not of greater fame), and confess that the true way to advance medicine is not to en-

close it within walls of apparent mathematical certainty, and rigid logical completeness; but rather to gather up as they fall, the loose leaves which the Pythian Apollo scatters about in profusion for those who can read them. And so, from age to age, medicine advances, systems and men decay. Amid many changes and conflicts with public opinion, assaulted from without by ridicule and argument, assailed from within by quackery and presumption, the art of medicine presents a certain grandly progressive character, which has rendered it one of the great agents of civilization. In return for the trophies which it has won from each successive age, it has lighted and kept alive the torch of free inquiry in the worst of times and among the most barbarous of peoples.

And this leads me to a third reflection on the true art of medicine, as contradistinguished from many of its false shadows. It is a precious legacy which has come down to us from the past, enriched by many observations and means of cure from a remote antiquity; but also increased by new riches and resources which stretch down in a lengthened line to the age in which we live. It is impossible either to teach or to practise medicine in a true and satisfactory manner without recognising this its historical character, its development through a long series of ages. And for this among other reasons: There is scarcely a disease which we can name, scarcely a remedy we can employ with entire confidence, that does not stand as a memorial of a long list of obligations to our fathers. And it is in vain to evade this debt—to say that we

have made the science of our fathers our own by independent researches pursued in the more correct spirit of modern discovery. It is not so. A thousand facts might be adduced to show that we yet lie under the yoke; that we, confident and self-dependent as we believe ourselves, are yet penetrated to the very core with the medical philosophy, the medical observation, the science, the systems, nay, by the most stupid prejudices and obvious blunders of observation, of some of the ancient physicians. Thus we describe in our text-books a host of fevers, which no man of English birth and education can pretend to have seen. We call these fevers by names culled out of the most ancient medical records; and very frequently, as I shall show you by and by, we use those names in a manner very far from accurate. But with the names we acquire theoretic notions, and practical precepts, sometimes sound and good, sometimes crude and absurd in the extreme. Is it worth while, or is it not, to attempt to know with some approach to accuracy, whence our boasted knowledge and our cherished nomenclature are derived? It is not very long since medical science regarded all delirious affections of the brain, including maniacal insanity and drunkard's delirium, as inflammations, under the impression that they were modifications of the disease commonly called *phrenitis*. A very little attention to the actual descriptions of phrenitis by the ancient physicians would here have saved modern pathology from an error which it took years of improved observation, aided by morbid anatomy, to eradicate. For not only is the phrenitis carefully

distinguished by the ancient physicians from mere delirium, but it is plain that neither delirium nor phrenitis were associated by them, of necessity, with the idea of inflammation of the brain. Thus, by a stupid and slipshod use of ancient words, hundreds of lives have probably been sacrificed to an erroneous pathology and practice of which even Hippocrates and Aretaeus would have been ashamed.

Again, the stethoscope discovered a large number of kinds of chest-disease, which had either been latent previously, or had been imperfectly known. But no sooner were those diseases discovered, than it became necessary to give them names. They were regarded, perhaps correctly on the whole, as varieties of old and well-known diseases of the chest, and named accordingly. But it was forgotten by many that the old established treatment, set down in the text-books as applicable to these ancient forms of disease, would not apply at all to the newly discovered varieties; and many well informed physicians, without adverting to this circumstance, congratulated themselves on having brought within the range of diagnosis, and therefore of treatment, several forms of disease before unknown. The consequence was a frightful abuse of active remedies, which has only been corrected by time, and the good sense of the great body of physicians, who refused to yield to the brilliant and seductive lessons of the modern inquirer when they did not correspond with the previous experience of ages, and the results of carefully instituted trials.*

* See a paper by me in the "British and Foreign Medico-Chirurgical Review," for January 1854.

Once more :—it happened that surgeons were led, by long-continued and carefully generalized experience, to recognise an important difference between tumours. Some were found to be capable of being removed with complete relief to the local symptoms, and little or no chance of permanent disease in the system. These were called *benign :* others, which had the opposite characteristics, were termed *tumores mali moris*, or *malignant tumours*. Between the two, surgeons acknowledged a doubtful or suspicious class. A careful study of tumours upon this basis of practical experience revealed that the greater number of the so-called malignant tumours contained a special morbid formation, which was denominated *cancer*, and was supposed to be the cause of the constitutional vice. The microscope was applied to this deposit, and after various differences of opinion and observation, its distinctive structure was supposed to have been made out. Forthwith the old distinctions were proscribed, by half-instructed zealots, as not in accordance with modern science ; the opinions of practical surgeons were disregarded and despised ; and the microscope was held to be the only arbiter of the nature of tumours, and of the fate of patients afflicted with them. But presently it appeared, by the most unquestionable evidence, that the microscopists had gone a great deal too fast in advance of the surgeons ; and that the latter, adhering to their old and despised formulas and common-place experience, were far better judges of the malignant or non-malignant character of growths than the new school, with all its aids to observation. The

microscopists had, in fact, fallen into the error against which I wish to warn you, of supposing that new facts and new methods carry in themselves a dispensation from the necessity of studying older experience. They were in the end obliged to confess, that tumours having, as they believed, no character of cancer to the microscope, might nevertheless be "malignant," in the surgical sense, to the highest possible degree; and, in particular, that a very large and important class of unquestionably cancerous structures, the *epithelial cancers* (as they are now called), had been arbitrarily and inconsiderately excluded from their natural position among morbid growths, owing to a one-sided and imperfect appreciation of their minuter elements. With this discovery, the boasted microscopic diagnosis between malignant and non-malignant tumours was, of course, set at naught; and from having estimated much too highly, and proclaimed too loudly, their own services to surgical diagnosis, the microscopists were in some considerable danger of being discredited altogether. Through the influence, however, of some able men, who had not adopted the errors to which I have alluded, the microscope has been replaced in its legitimate position in reference to surgery, and the schism between the old school and the new may be considered as at an end.*

* Mr. Paget's "Lectures on Surgical Pathology" in this country; Velpeau's "Traité des Maladies du Sein" in France; the remarkably instructive debate on Cancer in the Académie de Médecine in 1854, in which M. Velpeau's orations, as usual, showed preëminent practical sagacity; and the multitudinous labours of Professor Virchow in Germany, have had a peculiarly beneficial influence upon this discussion.

As it is impossible, in medicine, that we can learn *everything* by personal experience; and as our necessary debt to the past is so large, it is not the part of a wise physician to show a contempt for authority, any more than to pay it exclusive deference. The truth is, that we cannot have too many sources of information, or too various points of view, in a science so complicated and difficult as that with which we have to do; and as we have reason to presume that there were among our predecessors men as honest and able as any among ourselves, it is a bad sign of our own position in any medical inquiry when it demands of us the sacrifice of our reverence for the past—when we find ourselves disposed to pass indiscriminating censures upon the great men of a former age. We recognise it at once as a piece of bad taste, when any one attempts to raise his own work in our estimation by depreciating that of his living neighbour. How much more should we be careful of the reputation of the dead, who have left to us the precious legacy of their knowledge and experience, in the full confidence that it will be candidly and generously interpreted!

A habitual and studied disrespect for authority in medicine not only incapacitates the mind from profiting by the labours of the past;—it is commonly the fruit of a disposition very unfavourable to the investigation of truth. There are, unhappily, too many prominent examples in the history of medicine, in which impatience of restraint, the pride of knowing and of displaying knowledge, the vain-glorious disposition to grasp at plausible-looking results before they have been properly tested, have led men into a position of

isolation, from which they have quickly learned to view the mass of medical experience as an encumbrance, the mass of therapeutical science as a delusion. From this the transition to quackery is easy: such men are indeed already on the fatal descent. They are already, in some measure, cut off from the sympathies of their brethren; and they naturally aspire to become the founders of sects, and to seek support among the ignorant or conceited persons among the public who are always ready to sympathize with them. Look at the histories of Hahnemann, of Paracelsus, and others of like character. Observe the arrogance of their bearing towards better men than themselves; the pretensions to almost superhuman knowledge, and to quite superhuman power; the mingled scepticism and credulity—scepticism as to other systems, credulity as to their own; and the extravagant assertions with which they invariably think it necessary to bolster up the most fallacious promises; the perpetual element of discord, and evil-speaking, and malice, in which they live,—and you will agree with me that such a career is not an enviable one, even if it should lead to affluence; much less so if, as in the case of Paracelsus, it should conduct to poverty and the hospital.

The last character of the true art of medicine to which I shall advert to-day is, that it is doubly founded, first on experience, then on *reasoned* experience. You cannot hope, indeed, either to study or to practise successfully the healing art, until this, its two-fold *rational* and *empirical* character, has been

correctly appreciated. The tree of medicine grows up out of the ground, it is true; its roots lay firm hold of the soil, and may be said with truth to be founded upon the rock of experience. But its branches are raised aloft towards the sky, and are tossed about with every wind of doctrine; its leaves inhale the breezes and feed upon the atmosphere of human thought. Hence the art of medicine necessarily takes, in some degree, the colour of the science and philosophy, and even of the popular prejudices among which it lives. It has always done so; it will never cease to do so. The changes it thus undergoes, the *almost* revolutions to which it is perpetually exposed, have formed, as I have said, the mark of the satirist in all ages. "Where is that solidity and stability of medical truth," he cries, "which should induce me to rely upon it?—when it is known that every new theorist overturns the theory of his predecessor, and that between Asclepiades and Themison, Galen and Paracelsus, Brown and Broussais, the medical art has found itself involved in a perpetual war which has thrown a shade of doubt over all our most valuable remedies, and, in the conflict of opposing principles, has well-nigh proved a war of extermination? Would it not be better to get rid of medical theory altogether, than to adopt it under these fatal conditions of uncertainty and revolution? Would it not be better to be content with the experience of the passing hour, than to construct a body of doctrine for our successors to laugh at?"

The objection is a plausible one, and strikes with some force, as I have already said, at the specious

simplicity of those artificially elaborated systems, by which medicine has been in all ages disfigured. But because there have ever been bad reasoners in regard to medical theory, men impatient of evidence, and eager to build up large conclusions upon an unsubstantial foundation, it does not follow that the exercise of the mind is to be condemned in medicine more than in any other art. The difficulties to be encountered only show the necessity of a stricter mental discipline than heretofore in the professors and practitioners of our art. No one who has studied medicine to any purpose will ever think of identifying it with the luxuriant growth of hypothetical imaginations which has clustered around it, but from which a little care, a little knowledge, and a little time and experience, will commonly enable you to separate much that is useful for your guidance, or important as a warning against error.

In the meantime, remember, that in the double aspect of medical science—one face towards fact and experience, another towards reason and thought—you will find not only the source of its revolutions, but the source of your comfort in the midst of them. Keep in view always that you have no business with the philosophy of medicine until you have made some effort to master its facts. Seek these in anatomy, in observation, in experiment, in reading; above all, seek them in the hospital and at the bedside. If the storm of doctrine be at any time like to blow you away, lay fast hold of the ground which is ever firm underneath your feet. In the wards of the hospital, in the

exercise of those little attentions which the most obvious reason suggests and the plainest humanity indicates, you will find repose from the agitations which you are not strong enough to bear, and which often appear to threaten, though they never overwhelm, the great body of medical doctrine. On the other hand, recollect that by sedulous attention to experience *alone*, medicine might have become a collection of "wise saws and modern instances;" it might have became such an art as has been practised in every age by old women and mountebanks, who ever take their stand on experience, but whose experience is lost with them, and never passes into the general sum of knowledge. By creeping along the ground, the medical art might in every age have lived out its little life as a simple annual; but it could never have become the great tree which has weathered a thousand storms, and seen the growth and decline of so many men and so many systems.

No, gentlemen, you cannot afford to throw to the winds those manifold considerations, founded on the accurate appreciation of medicine as a science, which guide and confirm the reason in dealing with the facts of direct clinical experience. You cannot throw aside that web of theory by which all rational minds tend to connect together the isolated phenomena submitted to their consideration. And for this, among other equally cogent reasons: that the choice is not between *pure* theory and *pure* experience, neither of which ever led to anything in medicine or in any other science, but between *false* and *true* theory,—between theory

founded on a clear and broad view of well-observed facts, and theory which is the expression of ignorance, the work of ill-regulated imagination, or the slavish reproduction of the opinions of others, always deteriorated in passing from one mind to another.

The same considerations which will induce you to to reject a medicine professing to be purely empirical, will also show you the absurdity of that which plumes itself on being in a peculiar sense "rational medicine." This phrase has been used by some good and some learned men; but that does not make it a good phrase. To me it seems, I confess, a very shallow one. The question whether *your* view of medicine is more "rational" than *mine*, is simply the question whether your mind is more clear in its perceptions, more accurate in its judgments, more profound and searching in its analysis of facts, than mine. Nature and truth are the same to both of us, and to both eternal and immutable. To claim, therefore any peculiar empire over medical doctrine for your reason as opposed to my experience, or to pretend that reason has more to do with your conclusions than with mine, is simply to assume that you are right, and I wrong; a process of reasoning of which no more need be said.

To conclude. My advice to you, in entering on the study of Practical Medicine, may be summed up in a sentence: Seek above all things, in a simple and pure spirit, the plain unadulterated truth. Add to the most ardent love of truth the cultivation of those gentle humanities which enable you to enter into the feelings

and to soothe the sufferings of others. Care nothing about systems or about men, in comparison with these; but go on patiently seeing, and studying, and comparing and reflecting, and applying, and you will not fail to become good physicians, wise men, and useful members of society.

NOTES ON THE PRECEDING LECTURE.

A TRIAD OF SYSTEM-BUILDERS.

1. PARACELSUS, (p. 64, 73.)—Every one has some sort of idea of the traditional fame of this extraordinary person; the great alchemist, astrologer, magician, wonder-worker, and would-be universal genius of the 16th century, a period fruitful in great wars, great revolutions, great virtues, great vices, and great epidemic diseases, whether of the body-social or body-politic. There are few who have not heard of his magnificent self-exaltation, of his virulent tirades against Galen and Avicenna, of his publicly burning their works in presence of his students, of his proclamation of himself as the "monarch of medicine," whose shoe-strings they were not worthy to unloose, of his claim to the possession of the means of unlimited wealth and protracted life; and of his own early and miserable death, from dissipation and disease, at the age of 47. Browning has made his story the subject of a splendid poetic moral, which has the great merit of being conceived in the spirit of historic impartiality, and executed with remarkable pains-taking as regards the erudition of the subject. I refrain here from indicating in detail the painful incidents of a life chequered with glory and shame, in which the indescribable humiliation of the end forms so striking a contrast to the lofty pretensions and aspirations of the beginning. The curious reader may consult the histories of medicine by Leclerc, Sprengel, and Haeser, together with the references in Hensler's historical works, and the apologetic monograph of Professor Marx, or the review of it in the British and Foreign Medical Review, Vol. XIV. In the notes to Browning's poem there is also much interesting information.

The facts are, unfortunately, much obscured by prejudice, and, perhaps, worse than prejudice, on both sides, so far as contemporary authorities are concerned ; and probably no credit should be given to the calumnies of his bitter enemy Erastus. But unless John Oporin was guilty of the most cruel and wanton baseness by which the memory of a fallen man was ever outraged, the charge of drunkenness carried to the most extreme lengths and all but constant, must be held as proved ; and it will be difficult, in the face of the evidence of his own writings, to acquit him of the most shameless and systematic deception, which no amount of charity can cover with the mantle of ignorance ;—though ignorant he undoubtedly was to an extreme degree. It is clear that he left Bâle chiefly on account of a dispute in which he had been endeavouring to enforce payment of an exorbitant remuneration, promised in the event of a cure which was not effected. Professor Marx tries hard, partly by vaguely denying the charges against him, and partly by throwing the blame of them upon his age, to remove the impression that he was deeply imbued with obscurantist and mystical ideas of magic and astrology. The evidence, however, is far too strong. Either he must have believed these things, or what is worse, he made use of them as if he believed them. The fact that the age so loudly protested against his occult and magical practices is sufficient to show that he did not merely follow its tendencies in this respect ; and the very vexation of Oporin at not having learned what Paracelsus must have systematically and deliberately pretended to teach him, is itself a proof of how great was the pretension, how small the performance.

I do not affect to have a familiar acquaintance with the original authorities ; but I confess that Professor Marx appears to me to have turned the Horatian maxim "nil admirari" upside down, in attempting to convert this man into a hero. This kind of criticism came in with the transcendental philosophy, and while in some instances these "vindications" of characters suffering under historical opprobrium have been really demanded, and have led to the opening up of new sources of

knowledge, I cannot see that anything like substantial injustice has been done to Paracelsus either by his own age, or by posterity. The idea that his genius was of that stupendous order which it was "left to later generations to recognise," is quite too monstrous for discussion. Admitting that he had no lack of power, as he certainly had none of opportunities for displaying it, the amount of his real contributions to the progress of medicine seems ridiculously small; while it is unhappily but too clear to the student of medical history, that the Paracelsian "reformation," as it has been absurdly called, swallowed up for a time the real progressive movement of the art, and buried in dust and rubbish the genuine spirit of truthful investigation which distinguished the 16th century. Berengar de Carpi, Benevieni, and Benedetti, were in Italy only the forerunners of that glorious band of anatomists and surgeons among whom Vesalius is the leading figure. France has her Ambrose Paré, himself a host, to redeem the age from the charge of being, medically, an age of small men. But in Germany, and north of the Rhine, in the very country and time of Martin Luther, the wretched strife of Chemists and Galenists occupied the minds of hundreds of young and ardent students, chiefly through the influence of Paracelsus, who has thus stamped the seal of his shame and falsehood upon an entire century, and has thrown into the shade the reputation of far better men, such as Rembert Dodoens (Dodonaeus), Peter Foreest (Forestus), Crato von Craftheim, and Felix Plater, who, in their spirit as well as in their work, stood far above the level of either party in this ignoble controversy.

I should be sorry to be unjust, even to so low a type of the medical character as Paracelsus; and if he had only had Professor Marx as his apologist, I should be apt to feel that the weakness of the defence was in part owing to a certain want of force and clearness on the part of the advocate. But no such objection applies to the masterly sketch of Hensler, in the "Geschichte der Lustseuche," which is, I suppose, the origin of all the attempts in the present day to "rehabilitate" (as the French have it) the character of Paracelsus. It is impossible

not to admire and respect the chivalrous spirit of Hensler's protest against the stern verdict of history, which has fallen so heavily in this case. Assuredly, he who spared none in his own fiery and outrageous haste to be famous, suffered a retribution so speedy and so tremendous as may well disarm all ungenerous criticism. Harsh and violent words seem out of place in regard to one who is so terrible an example in himself of their power to wound the utterer. "With what judgment ye judge, ye shall be judged; and with what measure ye mete, it shall be measured to you again." No sermon was ever preached from a pulpit upon these words that can equal, in its force of appeal, the life of Paracelsus. When I think with what a fearful and quick recoil his injurious falsehoods and loud empty boasting turned the scale against him, even in his own short life, I am overwhelmed with pity and awe, and feel that the barest statement of the facts, if we could get them all, would be at once the best eloquence, and the most complete vindication of truth and morality. Let some painter attempt to realize for us the little we know of Paracelsus in his last hours —poor, needy, diseased, friendless, obscure, and (it is even said) indebted to public charity for support; a broken spirit, without love, without resignation, without intellectual resources or moral culture—(I dare not say without religion), yet on the verge of eternity, at the age of 47;—and let there be written under the picture his own wild words, uttered no doubt in the insolence of power, and under the stimulus of popularity: "After me, not I after you!—you after me, not I after you, Galene, Rhazis, Montagnana, Mesue! After me, you from Paris, you from Mompelier, you from Meissen, you from Cöln, you from Wien, you islands of the sea, you Italy. I shall be monarch, and mine shall be the monarchy, and I will bring the monarchy, and girdle all your lands!" A solemnizing and an awful picture, which one may think of now, surely, after the lapse of three centuries, without any other feelings than those of reverence for the majesty of truth, which arose unsullied, after a time, even out of this wretched pollution. It was nothing that Paracelsus died, for we know that God's arm

strikes, in justice or in mercy, the martyr and the charlatan alike. But that the pretender to so many of the hidden secrets of worldly happiness, the dreamer of such golden dreams, the aspirant to a dominion so unlimited, who had, it seems, put the eternal facts of nature out of his calculation altogether,—that such a reckless boaster should come to such an obscure and wretched end is, I think, a tragedy to which no words can do justice, whether spoken in severity or in pity.

In the interest of truth, however, I must remark that Hensler's most striking, and in many respects most noble apology, appears to me to be throughout vitiated by that worship of mere rude force, whether of word or deed, which is not, indeed, peculiar to Germany, but which there assumes its largest proportions. It is this which contributes to the growth of those monstrous and mis-shapen births of system in medicine, against which I have thought myself bound to make a protest in the preceding lecture. What is most lamentable of all is, that men of really noble nature, like Hensler himself, are often led by this bias to give a practical support to the basest outrages on truth, simply from the fear of committing injustice, and of being betrayed into what they fancy to be illiberality. The danger would be slight, if the error could stop with such men. But it rolls downwards into the mass of uninstructed minds, like a boulder down a mountain-side, until everything is lost in a chaos of perverted ideas, and truth and falsehood are buried in a common ruin. It is notorious that, in matters of medical science at least, the popular judgment reposes helplessly upon the breath of those who have the power of making themselves heard amid a tumult of discordant voices; and if these men, through culpable indifference or mistaken chivalry, refuse their moral judgment upon matters where the intellect seems to be chiefly concerned, it is clear that we must submit for ever to the rule of the *worst* in our medical republic. The unscrupulous *claqueurs* of quackery are never slow to use the weak admissions of the good in their own favour, as many examples in our own day fully show.

As regards Hensler, I desire nothing more clear than the

following sentence, to show the unfortunate perversion of his judgment in this particular:—" No one omits to mention" (he complains with regard to Paracelsus) " the unruly manner of his life, and his debauchery. But suppose that he bragged like a mountebank, and lived like the meanest stable-boy, *does that determine the worth of the author?* It is true he was immodest in the highest degree ; a boaster such that none could be worse. He was unmannerly, and his coarseness was often unjust. He had in truth little real knowledge, and what he knew was vague ; much also, of what he appropriated to himself, was already said and known. He criticised only according to certain bad ideals which hovered before him, the knowledge and the art of all his fellows, just as in our time some pædagogues do, who still cry aloud their ' after me, not after thee,' though, thanks to the more polished times, in a somewhat lower tone. But much that is harsh must be put down to the account of the rude time in which the man lived. And an excellent genius he was—none of your annuals—sickly and diminutive—a true genius, comprehensive, wide and far-seeing, firm, full of force and fire; and that *stood him in the place of much knowledge and long experience, for a great advance in the art;* seeing that the time truly needed a great reformation." Much of this need not be disputed ; and all of it might hold good if, Paracelsus had been content (like Erasmus, whose questionable support Hensler claims in his favour) to play at ninepins with the errors and vulgarities of scholars, literary men, and monks. But surely it is not a matter of such indifference whether one who engages to enter the battle-ground of medical *practice,* whose ninepins are life and death, sickness and health, happiness and misery, should be armed for his task with knowledge and love of truth for its own sake, rather than with a spurious and self seeking rhetoric, or (as Hensler himself calls it) " a throng of words, a waste of bombastic and alchemical twaddle," gilding and covering over the discredit of many a blind and presumptuous assertion ; masking the true result of many a rash and disastrous experiment upon sick humanity, made almost at random with the strongest and most poisonous minerals and simples.

Take, for example, his use of mercury, which Hensler has brought forward as being possibly his highest title to medical fame. He did not introduce it into practice, "but he certainly extended, confirmed, and made more general the use of it, at least among the secret nostrum-venders and stage-doctors (heimlichen und wandernden Aerzte). The school-conforming physicians" (continues Hensler) "are ever little forward, or at least too slow, in deciding upon the employment of great remedies; not because they are learned; but because, in the first place, *carefulness is a duty with them*; and in the second, because, truly, *they do not always keep their head, and heart and vision clear in their studies.*" True, most amiable Hensler, in the abstract; but mark, how in this passage, trying to keep even with both sides, you are simply holding a candle to the devil. Here is the use of mercury which Paracelsus confessedly introduced *among the mountebanks*, because the men of science and skill would not adopt it at once on his simple assertion. "It (mercury) must be taken as meat and drink; and, truly, not raw and narcotic" (it would be a pity to refine upon or explain the words of this great and far-seeing genius), "that there may be no lulling to sleep (of the disease), no illusory cure; but so prepared, and separated from its body" (*i. e.* a quintessence, or what Hahnemann would call a spiritualization of mercury); "so that the disease may take it in with a like hunger and thirst, as the hungry stomach does its food." Whether Paracelsus himself did much mischief in this way, and how much mischief, it would be vain now-a-days to inquire; but what the quacks did, and what the regular physicians copied from them, under the direct influence of the Paracelsian "advance in art," is not unknown to medical men; though happily the records of these abuses are now to be found more in our museums, than among the living population. Truly, with the "school-conforming physicians, "carefulness *is* a duty;" and one which, by your leave, most excellent Hensler, they have occasionally forgotten, and will forget again under the pressure of notions such as yours!

I confess I find it exceedingly difficult, after perusing with

great care what Hensler has written on the subject of Paracelsus in this book, to extract from the mass of his absurdities a single idea which was worth the trouble of defence. His pathology on the subject which he knew best is nothing but a series of blunders, containing the seeds of yet worse blunders, when his theories are carried out to their consequences. As to the practical results, Hensler himself refuses to stand sponsor for them ("Ob seine Mittel genüge thun, möge ich nicht behaupten.") What remains then, but to hope that, as in the case of many of the most notorious and basest impostors, the practice was not quite so bad as the theory would lead us to believe. So much I can well suppose to be justly said for Paracelsus, in the matter discussed by Hensler.

But the age, it is said, urgently demanded reformation. No doubt: Reformation was coming, however, long before Paracelsus began to "fret and strut his hour upon the stage;" and that with no uncertain or faltering steps. The "reformation" had begun many years before, in anatomy; and in surgery and medicine there was no need to fear that it would now fail. Nevertheless, it is not necessary, in order to sustain the common verdict of history, to deny that with all his mischief Paracelsus did a little good. He contributed in some degree, though far less truly than Vesalius, to break up the bonds of mediæval prejudice, and the authority of Galen and Aristotle; while by the very spirit of contradiction which led him to oppose their sway over the minds of men, he aided in the revival of the earlier Greek models, and especially of the Hippocratic writings. Further, his villanous and obscure but pithy jargon had an attraction at the time, which familiarized that age with the description of medical subjects in the vernacular tongue; and it may be allowed that (without any just notion of their value) he brought into use in medicine some substances which in other hands have proved acquisitions to the stock of remedial agents. Thus it is ever true, that upon a retrospect of revolutions in the intellectual and moral, as in the physical world, we can discern a wise and beneficent Providence, assigning even to the most destructive and ruinous events their place in the history of progress. But if

the aberrations of Paracelsus are on this account to be condoned by criticism, or skilfully hidden from view among the few unfruitful truths to which he bore witness, the moral uses of history will be entirely set aside; and I cannot avoid, therefore, protesting against the modern attempts to invest the character of Paracelsus with the attributes of a great reformer and moral hero. It is a sort of intellectual Fetish-worship, of which Germany has lately been fruitful in examples.

Of the system of Paracelsus I have hitherto said little. The truth is, I am afraid to say anything of it at all, amid the mist that encircles it. Friends make it out to be one thing, foes another and quite a different thing. Besides, I estimate the man, not according to his system, but according to his character and the practical results of his life and doctrine. He may, for aught I know, have been a great genius: all I have ventured to say is, that he was a very poor physician. Of his chemical merits I do not presume to judge; still less of his rank among mystical philosophers. Yet his medical system is so much bound up with wild speculations on all manner of subjects, physical and metaphysical, that Milton's "limbo" might have been furnished forth from its fragments. In the few words of exposition which I can afford to give, therefore, I shall not rely on my own resources, but on one of the most favourable recent criticisms on Paracelsus, that of Haeser in the second edition of his History of Medicine, published in 1853.

The Paracelsian doctrine (according to Haeser) rests upon the fundamental principle of the absolute unity of nature, which is everywhere pervaded by the spirit of God. The life of individual beings is determined by emanations of the spirit of God, which possess them also in the form of "astral balsam" and of "heavenly fire." But man—as the most perfect being in creation—unites in himself all the individual forms of life that are in external nature, and shows forth, therefore, the "Microcosm" as opposed to the "Macrocosm." Now, as the knowledge of the nature of man cannot be attained by direct investigation, and is least of all to be expected from anatomy (for which Paracelsus, like other system-builders, always manifested the

most undisguised contempt), this knowledge is to be sought in the study of external nature, or of the Macrocosm;—that is, in Philosophy, in Astronomy, in Alchemy, and in "Tugend," or the study of the properties of natural objects;—in which studies are to be found the centre and source of all medical knowledge and of all power over disease.

In the body, there are three constituents. Whatever burns, is *Sulphur;* whatever evaporates, is *Mercurius;* what remains in the form of ashes, is *Sal.* The life which animates and combines these substances is similar to that which supports external nature; therefore the forces of external nature act upon man, and health or disease is the consequence of their due or undue action. These forces Paracelsus reduces to certain occult ultimate principles, which he terms "Entia;" as "Ens astrorum," "Ens veneni," "Ens naturale," "Ens spirituale," "Ens deale." All diseases follow directly from these powers; all remedies are of the nature of "Arcana," i. e. *specifics,* which by their occult properties and magical powers (unlocked by the art of the alchemist), act directly and immediately upon the disease. Remedies, therefore, do not act as substances, but as "Essences;" hence, in using any substance as a remedy, it is necessary to extract from it the *essential* part, and to administer this independently of the crude material.* We have already seen an example of this in the case of mercury, which is to be administered separated from its body ("von seinem corpus geschieden.") So important is this doctrine of Arcana with Paracelsus, that he names and arranges diseases, in many cases, according to the corresponding remedies; as for instance, "Morbus terebinthinus," "Morbus Sileris Montani," "Morbus helleborinus," instead of Branchus, Rheuma, Coryza, Catarrh. But as to the actual preparation and use of the Arcana, he has

* The reader of this sentence who is acquainted with the homœopathic system as explained in the "Organon" of Hahnemann, will be struck by the exact analogy between them in this respect. Hahnemann also resembled Paracelsus in riding roughshod over Anatomy. Yet I do not believe there was any borrowing in the matter. It is the common refuge of charlatanism in all ages—occult causes, on the one hand; specifics on the other—everything, in short which keeps exact and real knowledge at arm's length.

kept his secret so well, that even Haeser here fairly gives him up, and confesses that in his genuine works there is but little information on the subject.

Paracelsus was called the "Luther of physicians." He may probably have regarded this saying as (what indeed it was intended to be) the reverse of complimentary. Nevertheless he occasionally condescended to take Luther under his patronage, pronouncing him "learned enough," and saying that he was a match for his enemies. In another place, he treats both parties in the great question of the day after his usual manner: "Luther" (he says) "is not worthy to untie the latchets of my shoes; and if I were to turn reformer, I would send both the pope and the reformers to school."* Like Luther, Paracelsus was vehemently opposed to the pretensions of the schoolmen. Both of them used violent and sometimes very unseemly language. But here the resemblance ends. In Luther, a certain frank and noble simplicity, a passionate one-sidedness, brooking no politic restraints, but united to the finest and most unselfish feelings, consorted well with a mission which had to be carried out by means of popular sympathy, and which was essentially truthful and honest. In Paracelsus, a promiscuous abuse of everything eminent or good was the foundation for an insane self-glorification which disgusted everybody in turn. Luther inspired personal respect in all but the most degraded slaves of the papal party; and his character rose in the estimation of his friends to the last hour of his life. Paracelsus alienated every friend he had, even the subservient John Oporin. Luther in the obscurity of the cloister, standing alone,—and without seeking for himself any higher position than that in which fortune placed him,—originated, almost without knowing it, a mighty movement of the human mind, which has borne fruit in endless revolutions, and is not yet exhausted. Paracelsus, occupying a professor's chair and a highly popular position, could succeed in nothing but raising up personal hatred and fruitless controversy, and in inspiring, at the last, a wholesome contempt for his gigantic and over-wrought pretensions.

* Sprengel—Sect. 9, Chap. 2.

2. Brown, (p. 64.)—The "Brunonian System," as it was called, is now well-nigh forgotten. It made, however, a great stir in its day, not only in Edinburgh where it originated, but still more, perhaps, in Germany and Italy. Its fame spread to the very confines of European civilization; and long after the unhappy author had closed a discreditable career by a death under circumstances strongly suggestive of suicide, his name was bandied about in the schools of the continent as that of an extraordinary genius and great medical authority. It would be difficult, now, to point out a single permanent result of his system, the chief characteristic of which, indeed, was a simplicity that rendered all study, all observation, all knowledge of details, an absolute superfluity. With the exception of the system of Hahnemann, which followed it in Germany, and that of Broussais, which grew up not long after it in France, the world has hardly seen, before or since, so complete a repudiation of the facts of medical science by an educated man. The time must indeed have been strangely out of joint in which such follies could find the support that they did.

Brown divided diseases into sthenic and asthenic. In the former, the *excitability* which is, according to him, the source of life and of functional activity, was supposed to be essentially increased, in the latter diminished. Even in sthenic diseases, however, he admitted a condition of *indirect* debility by exhaustion of the excitability. The cure for all these conditions, except the simple sthenic, was stimulation by good and rich food, wine, spirits, opium, &c. Nothing could be simpler, nothing more agreeable to the prejudices of mankind. It must be admitted, too, that some of the orthodox physicians of Brown's day had a habit of starving and weakening their patients; which may account for some, at least, of the acceptance of the doctrine. There can be doubt, however, judging from Brown's own statements in his preface, and from his known and well-established history, that his use of stimulants in medicine was suggested by the clamorous demands of his own constitutional and moral infirmities. He was gouty, and

sociable; at all times fond of good things, and in the end addicted to the most degrading excesses. His system of medicine was, there is too much reason to believe, only a special pleading in favour of the indulgence which he found himself unable to resist. *Quod volumus, id facilé credimus.*

The pretensions of Brown, like those of Paracelsus, were not regulated by a very strict regard to the claims of truth; but his personal vanity, and his ambition, were confined within somewhat narrower limits. The history of his school-days and early manhood is creditable to his industry and talent. He became an excellent Latin scholar, and engaged in the study of divinity. Abandoning the church, however, he turned his attention to medicine, and soon found a mode of supporting himself by instructing the students in Latin, and by writing for them theses which they afterwards put forth as their own. It was when he had attained a certain kind of eminence in this wretched business, in which, no doubt, he soon learned to write with equal fluency on every side of every question (and all the better that he as yet knew nothing at all about medicine as a science), that "he said he had now discovered his strength, and was ambitious of *riding in his own carriage* as a physician." He began at last to study in earnest, and received much charitable assistance from the professors in so doing. At the same time he established a boarding-house for students, became comparatively rich, and passed through extravagance into bankruptcy. Soon after, Cullen took him by hand, made him a tutor in his family, employed him among his students, and placed him again above want. Of course, Brown was at this time a devoted and enthusiastic defender of Cullen's doctrines. It is not necessary, nor is it quite easy, to trace the rise and progress of their estrangement; but the result was the Brunonian system. The thesis on one side of the question had been written; that on the other was yet to write. The ex-dependent of Cullen devoted himself to the abuse and detraction of Cullen, as to his peculiar mission. Those who wish to have an idea of these vulgar and venomous effusions, may read some of them in Dr. Beddoes' life of Brown, prefixed to the translation of the Elementa Medicinæ, London,

1795. In the edition of 1805, edited by the son of Dr. Brown, the case of the latter as against Cullen may be seen. But there is in truth nothing whatever to justify the idea of anything but the most uniform kindness on the part of Cullen, until the ambitious assistant began to fancy his merit underrated, and to resent this fancied slight in his own peculiar fashion.

Meantime the founder of the new medicine tippled and talked scandal among the students till he made himself the head of a party of choice spirits. Disputes rose high in the Medical Society; a law had to be enacted to prevent the duels in which they constantly tended to explode. The Professors treated the new system with silent contempt; and Brown, excluded from the sympathies of those whom he had offended by his insolence and immorality, raised the cry of persecution, and grumbled because he was not admitted to all the honours and privileges of a great discoverer, and to the emoluments of a successful physician.

Worse, however, remained behind. The story of the disgrace which in the end drove him from Edinburgh, is by no means clear: it seems however, highly probable that Brown allowed himself to be accessory to the clandestine subornation of a nurse in attendance upon a case of fever under the care of Dr. Duncan and Dr. Monro. Whether the woman was actually induced secretly to administer the Brunonian remedies, or whether, as she afterwards alleged, she refused to do so, there is no doubt that Brown had the unspeakable baseness to accept the credit of the cure performed under these very singular circumstances. The moral obliquity involved in this transaction is almost inconceivable. Either he accepted for his system a result which was in reality opposed to it; or he connived at a breach of professional confidence which nothing can excuse. That Brown attempted to tamper with the nurse, if he did not succeed, there seems no reason whatever to doubt.

From this point to the end, the story is a painful record of abject humiliation. Finding his prospects destroyed in Edinburgh, he went to London, where, however, he lived in utter obscurity till 1788, when he died suddenly in his fifty-second year.

In 1782 Brunonianism was at its height in Edinburgh. In 1790 a modified version of it was announced in a French journal by Girtanner. In 1792 the "Elements" were translated into Italian at Pavia, and in 1795 into German at Frankfort-on-the-Maine. Before the end of the century the worship of this strange idol had extended over the whole continent. "There came to be a party or sect in all the universities," writes a German anonymous author in 1807, "distinguished by the title of Brunonians. This name became celebrated in France, Spain, Italy, even in Poland and Russia, but above all in Germany, where we hailed him as our *medical Luther;* and, in the University of Göttingen, the students carried their dissensions so far that, like some of the scholastic sects in the 13th century, they came to blows, and a military force was called in to quell the disturbance." *

In 1805, Dr Joseph Frank, son of the celebrated J. P. Frank, thus writes: "The Brunonian system is daily more and more modified, so that it is scarcely to be recognised. You will be astonished to hear that I have deserted it. 'What system,' you will ask, 'have you then adopted?' None. I consult my own experience, and benefit by all correct observers, whether they belong to the new or to the old school. *It is only since I have adopted this method that I feel as if I were a physician.*"†

The Brunonian system was therefore on the wane in Germany in 1805.

In Italy, too, the Brunonian system underwent rapid modifications. Rasori, who adopted it originally, changed his ground so completely as to substitute depressing agents for stimulants in the majority of diseases. But the antithesis of sthenic and asthenic, and a coarse therapeutics founded thereupon, have continued to prevail more or less in the north of Italy ever since. Tommasini was a great exponent of some such theory.

I never saw a living Brunonian, and I am led to believe that the race is extinct. Possibly the system may have filtered by this time into Tartary or Thibet, or by way of Siberia into

* "Edin. Med. & Surg. Journal," Vol. III., p. 500.

† Ibid. Vol. II., p. 499.

China. In 1852, however, happening to be in Milan, I was introduced to an elderly physician, a stanch Broussaisist, I suppose, for he ordered in my presence, at the hospital, nearly a dozen blood lettings in the course of an hour. Entering into conversation with him, I stated that I had come from Edinburgh. "Oh, yes!" he said, evidently fumbling for a compliment—"a great school! I know Edinburgh. It is a great school—Cullen is of Edinburgh—yes—Cullen—*and Brown.* Truly a great school!"

3. HAHNEMANN, (pp. 50, 73.)—It is not my intention here to enter into an exposition of the system of Homœopathy, and still less to revive controversies to which I have already contributed my full share. Most educated men are aware that Hahnemann professes to overturn the usual mode of the application of remedies to the cure of disease, and to employ those only in any given case, which in the healthy man are supposed to have an action which he terms pathogenetic, that is, productive of morbid phenomena, and these as like as possible (*homœopathic*) to the disease intended to be cured. "Similia similibus curentur" is the alleged law of the system; a law so absolute and so exclusive in Hahnemann's eyes, as to justify him in treating all divergence from it as a fatal error. In the discussion (if discussion it may be called) of this principle by Hahnemann, we find abundance of the Paracelsian element; the most bombastic self-assertion, the most unmitigated and passionate censure of others; sarcasm, not always unfounded, against the weak points of ordinary practice; an entire absence of hesitation in making the most astounding statements without the smallest amount of evidence; and a tendency to hazy metaphysical generalizations of the most abstract and intangible kind. Of these characteristics of the system I have elsewhere (in the "Edinburgh Essay" on Homœopathy) given abundant instances. The ordinary methods of physic (*allopathy* as Hahnemann nonsensically calls them by way of nickname) are to him "hateful methods," which have "destroyed ten times as many men as the most murderous wars, and enor-

mously increased the sufferings of many millions of others." On the other hand, "the pure homœopathist almost never misses his mark, and succeeds almost always." Moreover "it is as impossible to conceive of another true mode of curing dynamic diseases, as it is to draw more than one straight line between two points." It was impossible, in the view of Hahnemann, that homœopathy should not be true; for allopathy and antipathy are both false, and there is no other way. "There must be," he says in one place, "a sure and trustworthy method of treatment, as certainly as God is the wisest and best of beings."

In these delirious utterances, so far removed from the dignity and humility of true science, we cannot fail to observe the resemblance between Hahnemann and the two other worthies of whose doings I have endeavoured above to give some idea. Yet the comparison is in some points an unfair one; for whatever Hahnemann's faults and errors, no one can deny him a degree of industry and even tolerance of drudgery which contrast very favourably with the meteoric impatience of Brown and Paracelsus. Accordingly, the activity and energy of a life devoted for half a century to the promotion of his system were not lost upon it, nor upon the world. The patriarchal age to which he lived permitted him to feel that he had, to a certain extent, overcome his early difficulties. Fortune dealt, on the whole, kindly with him: enthusiastic followers abounded; money was forthcoming; and long before he died his adherents had carried his praises through every country where it was possible to turn a penny by doing nothing under a fine name. "There is but one God," said an enthusiastic disciple, in 1812, when Hahnemann was but fifty-seven years old,—"There is but one God and one Hahnemann—both inscrutable in their working, both of one mind in blessing the human race (Beide unerforschlich in ihrem wirken, Beide eines Sinnes für Menschenbeseligung.)" It seems incredible that a testimony like this should not have been consigned to oblivion by judicious friends as soon as possible. Yet I find it reproduced, apparently with high appreciation of its value,

in a "biographical memorial" published in Leipzig in 1851, by some one who had access to the family archives. The man who was thus worshipped "not wisely but too well" in 1812 had still thirty-one years to live—a great advantage over Paracelsus and over the yet more unhappy John Brown. Let me hasten to admit that, as compared with them, he deserves his better fate; for if his system be to the last degree an outrage on common sense, it must be granted that his personal character was not (except in professional matters) an offence to decency and social propriety.

But, when we are told in ~~one of the latest panegyrics upon him, and in~~ the pages of the principal homœopathic journal in this country, that, with the exception of a few infirmities of temper, his character and life were of "sublime" goodness; when it is added that "above all his discoveries in medicine and therapeutics" were his "singlemindedness and integrity," I confess that I find my favourable judgment arrested by certain circumstances which have never been satisfactorily explained to my mind. They are not new scandals; ~~I have nothing to do with the originating of them.~~ They arise from the consideration of events in Hahnemann's history which are, I presume, public property, inasmuch as they have been stated over and over again, and have never been contradicted. ~~I am not studious of private or unauthorized scandals, and I would turn a deaf ear to mere vague insinuations; but I am bound, in like manner, to submit extravagant eulogiums to the criticism of facts, as they appear to me to be well-ascertained.~~

I have, ~~in the note in p. 50,~~ already alluded to one of these awkward circumstances in Hahnemann's career. It has been stated on the authority of Dr. Mühry, of Hanover, in a widely circulated medical journal, and as "a fact undenied even by his own adherents," that, previous to 1810, Hahnemann had "deceived the world by selling *at a high price*, under the name of Pnœum, a nostrum which consisted of nothing but borax."* This is a stigma under which no innocent man should have been allowed to remain for a moment; for it involves the

* "British and Foreign Medical Review," Vol. XXII., p. 565.

They were stated, moreover, in a former edition of this work, which underwent the fullest possible criticism ~~at the hands of the~~ in the journal above

double charge of making gain by a secret remedy, and of concealing a known substance under a false name. The former practice is severely reprobated by all honest and high-minded medical men. To a man with Hahnemann's pretensions, it is deeply disgraceful; but it is not, perhaps, *per se*, and in the eyes of the world, distinctly and conclusively immoral. The second element of this indictment, however, amounts to nothing less than a very gross attempt at imposing on the public credulity.

The only allusion which I have ever seen on the side of Hahnemann's admirers to this serious accusation, is one by Dr. Henderson, which unfortunately has a kind of indirectness about it by no means favourable to the discovery of truth. Here is the entire statement. "It was afterwards remembered against him, when his name began to be distinguished in medicine, that he had *mistaken borax for a new alkali*, and had sold it as such. But it is not added by his enemies, that on discovering his error he hastened to correct it, and to refund the money he had received. Many a great chemist has made as great a blunder, and in more recent times too."* In other words, we are expected to believe that this charge, as "remembered" and published by personal enmity and professional jealousy, amounted to nothing more than a very ordinary chemical blunder, repaired as soon as discovered. The answer might be becoming in a hired advocate, but is unworthy of a man in Dr. Henderson's position. It is very probable that Hahnemann may have been terrified into refunding his ill-gotten gains. But that he mistook borax for a new alkali is not only an improbable suggestion—it is not the thing which was "remembered against him;" it is, therefore, a quite gratuitous suggestion brought forward, without proof, in his defence. Assuredly, no one would have cared a straw about a blunder in chemistry, if it had not been, too plainly, made an apology for a gross deception.

Pnœum, however, was not Hahnemann's only adventure in the way of *nostrum vending*. It is well known, or at least has been stated without an attempt at contradiction, that the cele-

* "Homœopathy Fairly Represented," p. 89.

brated *Hahnemannian Preservative against the Scarlet-Fever* was at first issued as a secret remedy; that it was in fact advertised as such, and that an effort was made to procure medical testimonials in its favour without revealing its composition ; that this attempt failed ; and that only after the failure, two years from the time of the first announcement, was the secret revealed of the supposed discovery of belladonna as a prophylactic in scarlet fever. No one can now avoid suspecting this transaction; for it is pretty clear that the alleged action of belladonna was an illusion, not in one, but in every sense of the term ; put forward in the interest of a system, and kept secret for purposes quite inconsistent with a simple desire for truth, and with the honour of a physician. We have seen how Dr. Henderson manages the narrative of the *borax*. Here is Dr. F. R. Leadam's version of the *belladonna* affair :—" Then came his discovery that belladonna was a prophylactic against scarlet fever, his indignation at the unfair suspicions that were cast upon him in his worldly endeavours to obtain a hearing for the new fact," [a *hearing* for a fact which he did not disclose !] " and his *subsequent* publication of it for the good of mankind. Perceiving that the world *would not remunerate him for the information*, he indignantly yielded up his knowledge, and turned aside the arrows which malignity and ignorance had forged."*

I may here inform the reader, that it is this very Dr. Leadam, and no other, who speaks, in a passage formerly quoted from this very euphuistic address, of the " sublime " excellencies of Hahnemann's character, and of his possession of nearly all the moral virtues in the highest degree of perfection. Is it not lamentable to see men so involved in the meshes of a vicious system, as to be incapable of stating the plainest facts in a straightforward manner ! The mawkish sentimentalism with which Hahnemann himself in this case appeals to the feelings of his countrymen, the fine rhodomontades of virtue and of piety in which he occasionally indulges, to the admiration of Dr Leadam and Dr. Henderson, cannot shut my

* " British Journal of Homœopathy," Vol. XIII. p. 81.

eyes to the fact that he attempted to juggle the public into rewarding him by anticipation for a fancied discovery, which was, in truth, no discovery at all; and that, in the pursuance of that object, he concealed for two years the name and preparation of a preservative remedy, which, if it had been as important as it has proved to be useless, ought, all the more on that account, to have been published at once. Jenner did not act thus with respect to vaccination. He "yielded up his knowledge" without any virtuous "indignation"; and "turned aside the arrows &c. &c." in quite a different manner.

Another point in Hahnemann's history which has always seemed to me not a little mysterious as seen in the light of that awe-inspiring virtue and sublime conscientiousness of his, is the following. In a letter to Hufeland, in 1808 (quoted by Dr. Henderson) with the portentous title "On the necessity of a Regeneration of Medicine," Hahnemann carries back the history of his own mental struggle between the new and the old to the year 1787. He had graduated in 1779, and he declares that "after an eight years' practice, pursued with conscientious attention," he had so "learned the delusive nature of the ordinary methods of treatment" as to be induced to relinquish in a great measure the treatment of disease. Now from an autobiographical fragment he has left, and from other sources, we know positively that till he went to Dresden in 1784 he had been far too unsettled, and in too disadvantageous localities, to have seen much practice. He had, in fact, passed two years in the Alpine town of Hettstadt, a few months in Dessau, and the remainder of the five years in Gommern near Magdeburg. In Dresden he can only have passed three years before forming the resolution expressed in his letter to Hufeland; nor was it at all likely that a young man newly come to a city like Dresden would find much to do during these three years. Is it not much more probable, on the whole, that practice *did not come to Hahnemann*, than that Hahnemann retired, owing to conscientious scruples, from great responsibilities devolving upon him in Dresden? That he may have been deeply sceptical, personally ill at ease, and brooding discontentedly

over the state of medicine, is very possible. But to make a merit of relinquishing practice when it is clear that he had been drifting about the world in the vain hope that practice would come to him, this, truly, is a piece of "sublime" nonsense worthy of the writer of the "Organon," and the praises of his devoted followers.

But had Hahnemann actually relinquished, or shown any disposition to relinquish practice about the year 1787? I am sorry to say that the facts are opposed to this conclusion. It often happens that men forget strangely their own feelings after the lapse of a quarter of a century; and in writing to Hufeland, Hahnemann had to make out a case for an entirely new system of medicine; a case which rested mainly upon the presumed inefficacy, nay the deadly character of the old system. I can only read in this light the following description of the difficulties which he alleges to have opened the way in his mind for the splendid vision of homœopathy. "It was painful to me to grope in the dark," he writes, "guided only by our books on the treatment of the sick—to prescribe, according to this or that view of the nature of diseases, substances that owed only to mere opinion their place in the Materia Medica; I had conscientious scruples about treating unknown morbid states in my suffering fellow-creatures with these unknown medicines, which, being powerful substances, may, if they were not *exactly* suitable, (and how could the physician know whether they were suitable or not, seeing that their peculiar special actions were not yet elucidated?) easily change life into death, or produce new affections or chronic ailments, which are often much more difficult to remove than the original disease. To become in this way a murderer, or aggravator of the sufferings of my brethren of mankind, was to me a fearful thought—so fearful and distressing was it, that shortly after my marriage I abandoned practice, and scarcely treated any one for fear of doing him harm, and—as you know—occupied myself chiefly with chemistry and literary labours."

This description refers, be it remembered, to some time previous to the year 1787. Now it so happens, that in October

1788, hardly a year after he had, according to his own account, brought to a voluntary close his eight years' practice of doing mischief at random, Hahnemann wrote the last sheet of a book which must have cost him some labour and time, and which was published at Leipzig, with the imprint of 1789. We may safely assume, I think, that this book exactly represents the state of his mind at the time described in his letter to Hufeland; and I can assure all whom it may concern that it is by no means a sceptical book, but on the contrary a very decidedly dogmatic one, with a leaning to what we should now-a-days call a pretty active routine practice. It professes to be an "Instruction for Surgeons on Venereal Diseases; with a new preparation of Mercury. By Samuel Hahnemann, Doctor of Pharmacy." The preparation of mercury is the "soluble mercury of Hahnemann"—as it continued to be called in Germany. A curious expression occurs in the preface, where he describes the mode of preparing the drug. "I keep secret," he says (Ich verheimliche) "no ingredient, no part of the process." Obviously the idea of keeping things secret had occurred to him; possibly not as an objectionable, but simply as an inexpedient one. Few physicians would have thought of making a merit of publicity in such a case. But let that pass. The main point to be noticed is that according to Hahnemann mercury invariably cures syphilis; there is no doubt at all expressed about that matter. "Mercury removes *all kinds* of venereal mischief, *unaided* and *surely*, so that we are not under the necessity of looking about for *any other remedy* against venereal diseases; only, *the preparation must be of the best kind.*" In short, it must be the "soluble mercury" of Hahnemann.

But farther: Many other remedies of various kinds are mentioned throughout this book. They are, indeed, inferior to mercury, which is the one unfailing remedy. But there is not wanting a good word for each of them in turn. Thus Guaiac-wood, China-root, Sarsaparilla, Ceanothus, Lobelia, Mezereon, green Walnut-shells, Bitter-sweet, liquid Ammonia, Opium, and Lizards (!) are successively discussed as approved remedies in some forms of the disease of which the author is treating.

Among these he particularly recommends Ammonia, as a "powerful means" and "really an energetic adjuvant" to mercury; "indeed I believe" he says "that if any means besides mercury could do any permanent good, it would be this." Most of the vegetable remedies, he remarks, were introduced into practice as substitutes for "the divine metal," and in this point of view Hahnemann considers them as failures. But most of them have also their place as adjuvants, more or less powerful, and some of them are especially useful in cases where mercury has been abused, so as to produce poisonous effects upon the system. They are, in short, palliatives rather than specifics; but may nevertheless be used with decided advantage.

With regard to mercury, Hahnemann admits the "dreadful consequences" of its "unreasonable" employment, and also its frequent failure, in some hands, to effect a cure. Hence the opprobrium under which it has long lain, and hence the multitude of secondary means to which men in their extremity have had recourse. Mercury, however, is not to be blamed (he thinks) for those results which have followed it in the hands of mountebanks, whose object has been to fill their own purses, and to bring about an immediate appearance of amendment, without caring about ultimate consequences. It was natural that physicians should "throw the blame of these insane salivation-cures on mercury, and should tremble to employ it." But the blame is unjust. Mercury can be managed so as to avoid these dreadful consequences; and, so managed, it is, he declares, "the true anti-syphilitic specific."

The lizard-cure is an odd one. The proper kind is the *Lacerta agilis* L.; the biggest are the best. You catch them alive, cut off rapidly their heads, tails and feet, take out the entrails, skin them, and cut them into little pieces which are to be rolled about in liquorice powder or wrapped up in wafers, and swallowed "quite living and warm," two or three lizards in the day. Twenty to a hundred are required for a real cure. Perhaps they would answer equally well chopped up and made into pills. Experience must decide farther as to this remedy. Hahnemann does not know that it is a perfect cure; but it may be very powerful (es kann sehr kräftig seyn).

Now, will anybody say that this is a particularly sceptical book, or that it manifests a very tremulous solicitude as to the consequences of using strong remedies? Why, here we have three or four powerful vegetable poisons, and one of the strongest and most insidious of mineral specifics recommended for the treatment of one disease, not only without the least misgiving, but with a certain degree of confidence, and in the case of mercury, with an enthusiasm which must seem to the well-instructed and truthful mind to be in the most quackish style of exaggeration. No doubt, Hahnemann's mode of using this drug was, measured by the most extreme practice of his day, tolerably cautious: he aimed *only* at producing a pretty brisk mercurial fever, not at encouraging a profuse salivation. I do not accuse Hahnemann of doing more mischief than others with mercury, though I unquestionably think that his principle of using it as the one indispensable remedy was calculated to lead to much mischief. But I say assuredly, that whether as regards Mercury, Opium, Lobelia, Mezereon, Dulcamara, or Ammonia, there is not the slightest indication in this book of a fear that he should compromise the safety of his patients; nor is there any very apparent scepticism as to the effect of any remedy which had medical opinion in its favour. To give the character of this book in a sentence, it is a mere compilation or indiscriminating *pot-pourri* of all that Hahnemann had heard or read upon the subject to which it refers; there is not a trace in it of practical experience, good or bad.

On the whole, I think it must be plain to every ingenuous mind that the story in the letter to Hufeland is simply a romance. Hahnemann may have had his doubts and difficulties previously to the so-called discovery of the homœopathic law; but that these doubts drove him from practice, or that they had any effect upon his mind at all comparable with that which appears in the letter to Hufeland, no one can suppose for a moment after the evidence I have given. I have thought it of importance to make this out clearly, because in almost every one of those tirades which homœopathists are in the habit of addressing to the public, great stress is laid upon the magna-

nimity and self-sacrifice of Hahnemann in this particular. It seems to be argued or implied in these appeals, that the system must needs be true, the discovery of which was contingent upon an act of such extreme conscientiousness and severe virtue. I should have been apt to argue otherwise. A method of practice fitted for all diseases is not a thing to be improvised in the closet. Had it been true that Hahnemann had retired from practice previously to discovering his "law," I should have argued that the law was likely to be unsound. As it is, I am convinced, both from the perusal of the book to which I have just adverted, and from many other collateral circumstances, that Hahnemann had, in truth, little or no experience in practice previously to his alleged discovery. His true character, up to that period, was not that of a practitioner, but of a chemist and a writer of books. He had been trying in various ways to make a start in practice, but without success. And (I say this not to his discredit, but only in explanation of many facts in his history) I believe the doubts and difficulties which were forced upon him "shortly after his marriage" to have been of a very much more material and pressing kind than any connected with the first principles of therapeutical science.

But here I find Dr. Henderson at his glosses again. It is quite evident that he has suspected, if he has not clearly seen, the discrepancy between Hahnemann's statements in the letter to Hufeland, and the tone of the work published in 1789. For he deals with the latter as follows: "In 1789 we find him (Hahnemann) settled in Leipsic, and publishing his treatise *on the only class of diseases he appears to have found amenable to treatment,* although not yet suspecting that the *cause of the exception* was, &c. &c." * The only answer which this requires is, that there is not even a hint in Hahnemann's book to justify it. There is not a word about "exceptions," or about an "only class of diseases," any more than there is about his alleged retirement from practice.

Nevertheless, it is by no means my wish to infer that Hahnemann was wholly insincere in professing to Hufeland that he

* Op. cit., p. 89.

had in 1787 begun to lose faith in drugs. My belief is, on the contrary, that he had not, at that time, had the opportunities necessary for acquiring anything like a real faith in remedies; and more, that he never acquired any considerable amount of faith either in his own system or in any other, except to the extent to which a man comes in the end to think he thoroughly believes what he is constantly engaged in loudly asserting. If there be any truth in the statements of Dr. Schubert, recorded in Casper's Wochenschrift for 1845, this conclusion of mine is not devoid of external and direct evidence. But I confess I should be unwilling to rest such a conclusion on the evidence of private conversations; especially as the mere recording of such conversations in such a case seems to be a breach of the confidence of private friendship. My own convictions on this subject have nothing to do with Dr. Schubert's testimony; to which, therefore, though quite in accordance with my opinion, I shall not further allude.

To state more precisely this view of Hahnemann's character (the only one, I think, that can reconcile its contradictions), I would fix the attention of the reader for a moment upon the year 1790, in the course of which Hahnemann himself says that the new revelation of the arcana of medicine dawned upon him. What was Hahnemann doing during that year? Translating Cullen's "Materia Medica." Why was he translating Cullen's Materia Medica (of all books in the world) if not to propagate in Germany the knowledge of those methods and practices which, according to his statement to Hufeland, he had been obliged to discontinue more than a year before, as being not only doubtful, but murderous, when carried into the actual treatment of disease? The reader of Cullen's Materia Medica must be aware that it is emphatically a systematic work, not so rich in data on which to found conclusions, as in conclusions already formed; conclusions, too, which, to a man in the state of mind represented by Hahnemann in the letter to Hufeland, must have been not less than utterly untrustworthy, not to say incredible and pernicious.

The only interpretation I can put on these facts, taken all to-

gether, is, that if Hahnemann became, early in his career, deeply dissatisfied with existing physic, and with himself as a practitioner, he at least failed to act out his convictions until he saw that he could turn them to profitable account. Far from condemning his supposed dissatisfaction, I should count it infinitely the most sincere and genuine element in his character; moreover, it was fully justified by that state of medical opinion which suffered the crude rhapsody of Brunonianism to overrun the schools, as it was beginning to do in Germany at this very time. I do not quarrel with Hahnemann for doubting, but for not doubting to good purpose. Had he been sincere and outspoken, anxious for truth, and willing to communicate, not in the spirit of a dictator, but of an humble and reverent learner, with those who could have enabled him to obtain it; had he, in short, instead of frittering away his abilities in work which he must have despised, betaken himself to the hospitals and added largely to his store of personal observation (which appears from his writings about this time to have been of the most limited kind), his doubts would have guided him aright; would have inspired confidence in nature and in natural processes of cure; would have led him, in fact, into the very path which practical medicine has since pursued. But Hahnemann was not only a doubter, but a doubter extremely anxious for speedy professional success. It is impossible to regard his *borax* adventure, his work on syphilis, his translation of Cullen's Materia Medica, in any other light than this. He was far too opinionative, far too dogmatic, and no doubt also too poor, to be any longer a mere disciple either of nature or of other men. The wants of a family pressed upon him with cruel force, and he felt that something sudden and brilliant was necessary to amend his position. Practice did not come when called, and chemical research was far from profitable. Whatever he may have said to Hufeland, it is very clear that he never really resigned the hope of obtaining practice; as to giving up practice, the idea is a little too ludicrous. He set himself, then, to translate Cullen. But the detailed inquiry into facts in therapeutics

was much too slow a process for a man in such a state of mind. The parading of a new system, on the other hand, and the announcing himself as the apostle of that system, was a likely road to speedy success.

I have remarked above that the Brunonian system had by this time begun its remarkable career in the Continental Universities. There is no direct proof that this fact had produced an impression on Hahnemann's imagination; but I think it a fair probability that the success of one revolutionary system led him to try what he could do with another. He had, as we have seen, an emphatically utilitarian genius; and when he had got hold of any fact or idea likely to be popular, his first care was generally to endeavour to make it *pay*, if possible. The borax, the soluble mercury, and several other chemical inventions, were successively advertised in the way deemed most likely to be profitable. Ten years later, the *scarlatina-preservative* was circulated in a highly unprofessional manner, and much virtuous indignation was expended because it did not bring in a speedy return. In this last case, it was beyond a doubt the success of Jenner's discovery of vaccination that moved him to bring a new prophylactic remedy into the market. I apprehend that in like manner the incipient success of Brunonianism led him to try a new system.

The mode in which he felt his way to this new system was curious and characteristic. It was confessedly *improvised* in the closet, not the product of observation at the bedside; indeed it is but too clear from all that he has written, that Hahnemann knew little or nothing of medicine except from books, until he had determined to adopt homœopathy. Having concluded, *a priori*, that the ordinary method was bad, it was equally easy to resolve, *a priori*, that the new method was good. "The idea of the homœopathic law was reasoned out," says Dr. Henderson, "before a single testing experiment had been tried."

The "reasoning," when reduced to its primitive simplicity by being stripped of its metaphysical verbiage and offensive bombast, was this. There *must be* a perfect system of curing diseases,

easily, swiftly, and surely. But there are only three possible methods—*allopathy, antipathy,* and *homœopathy.* In other words, the disease must be remedied by something which produces either *different* effects in the healthy body, or *contrary* effects, or *similar* effects. But allopathy and antipathy, in various combinations, make up the ordinary methods, or the "old medicine." The old medicine is utterly bad and vicious; it frequently kills, but never produces cure. Therefore, *homœopathy is true, absolutely true, invariably and exclusively true.**

System-builders in general have a wonderfully easy way of making good their conclusions on paper: but I doubt if there was ever a more flagrant example of easy system-building than that which I have endeavoured above to make plain to the most ordinary capacity. I think I am entitled to the thanks of the homœopathic fraternity for having been the first thoroughly to popularize their system. Mixed up, as it is in the "Organon" of Hahnemann, with speculations on the "spiritual" powers of remedies, I am sure few Englishmen will ever be brought to understand it, even though they may be led adopt it in practice; but I venture to think that the above quintessence of the argument will prove less unintelligible.

When Hahnemann first attempted to reduce his theory to practice, he was met at the outset by a rather peculiar and unexpected difficulty which speaks volumes as to the real character of his system. The difficulty was, *the almost invariable aggravation of diseases by the administration of his remedies.* Is the reader incredulous? I confess I feel almost as if I were over-stating the matter; and therefore, that I may secure and deserve the confidence due to a historian, I will on this occasion appeal to Hering, a great homœopathic authority. I might with equal propriety cite Hahnemann himself (Organon, § 276); but Hering has here the advantage of speaking more briefly, and equally to the point. He remarks, that the "almost constant aggravation of the disease by the remedies chosen according to the

* For the fuller statement of Hahnemann's argument, and of the objections to its details (for the *principle* almost refutes itself,) see the *Edinburgh Essays*, 1856, formerly referred to, p. 102.

new law, threatened to embarrass very much their trial, if not to render it wholly impracticable. To avoid these disagreeable results, Hahnemann adopted the most simple and natural expedient, viz.—" but softly, M. Hering! Would not *the most simple and natural expedient,* under these circumstances, have been to *abandon the system?* Here is a theory devised and brought to perfection in the closet, and on the express ground that remedies, as commonly used, aggravate the diseases they are intended to cure. Well, it is found that [the remedies, used according to the new system, also aggravate the diseases they are intended to cure; nay more, that they aggravate it exactly in proportion as they are homœopathic; the effect of a homœopathic remedy being, under the like circumstances as to dose (as Hahnemann distinctly affirms), *much worse than that of an allopathic remedy!* How can you possibly escape from the conclusion that your system is utterly in the wrong?

A system-builder is not easily stopped by a little difficulty of this kind. " To avoid these disagreeable results," says Hering, " Hahnemann adopted the most simple and natural expedient,—viz. that of *lessening the dose.*" In other words, he gradually came to adopt that other strange theory of *infinitesimal doses,* so well known as being to some minds the chief stumbling block, to others the chief recommendation of homœopathy; and thus, by a round-about course, arrived at the conclusion of giving no medicine at all in any sensible quantity—that is, at the conclusion of dispensing with medicine altogether.

It was, apparently, to give a kind of consistency to his mode of dealing with the adverse lessons of experience, that Hahnemann was led to place his system beyond the reach of scientific scrutiny, by surrounding it with a halo of mysticism. Hitherto his ideas had at least been intelligible. But intelligibility implies a certain amount of deference to fact; and the facts, as we have seen, were clearly against him. Accordingly he plunged headlong into that sea of misty metaphysics, which occupies so prominent a place in the Organon. To him, as to Paracelsus, remedies became exclusively arcana, or specifics; their physio-

logical or sensible properties were discarded altogether from consideration, except as the indication or manifestation of their more hidden virtues; the real powers of all drugs being considered to be due to certain "spiritual" properties by which they were to be brought into immediate relation with the disease, without any intermediate action whatever upon the functions of the diseased body—by which the spiritual power of the remedy was to be applied to the spiritual source of the disease, and to it only; an occult agent to an occult cause, a mystical impalpable essence to a mysterious inscrutable *something*, which no science could bring within the scope of the human understanding. For upholding a system like this, the requisites are very simple; they consist in a complete abnegation of all real knowledge, and a reckless effrontery in assertion, whether in favour of the new system, or against the older methods. These qualifications Hahnemann possessed in a high degree. Morbid Anatomy, that load-star of modern medicine, he treated with a contempt truly Paracelsian; asserting that it was only an investigation into the evil effects of the misapplication of remedies. The idea that the pure homœopathist, who "almost never misses his mark, who succeeds almost always," should ever have any fatal results to inquire into, was not to be entertained for a moment. It was of no importance to him to learn what men died of; let those occupy themselves with such trifles who foolishly and uselessly spend their lives in looking into the causes of disease. Hahnemann has no need to inquire into causes; he has to do only with symptoms; indeed the symptoms are, to him, the disease, or all of it that can be known. For the rest, the elastic phrases and convenient obscurities of *the system*, must cover all blunders of diagnosis. No disease, that is, no collection of symptoms, need want for a name; and if the name be a large-sounding one, a word of fear to the uninitiated, why, so much the greater the credit of the cure. Never mind, then, the state of the internal organs, and the intricacies of modern pathology! The homœopathist has no need of them; nay, to him they are positive incumbrances. Besides, is there not the celebrated doctrine of Psora to help

out the flaws in the system, and to aid in keeping science and common-sense at a respectful distance?

From this point it was but one or two steps to the extreme nonsense of infinitesimals, and the virtues of a single "olfaction" of globules containing a decillionth of a grain of musk. The occult or spiritual powers of remedies were soon regarded as being proportionate to the attenuation of their bodily substance. The mystical virtues ascribed to shaking and trituration; the portentous ceremonies thence resulting, in the compounding of prescriptions; the elaborate romances of the so-called "provings;" the dogmatic assertion of impossibilities, and the unhesitating assurance which appears to render proof unnecessary; the unscrupulous abuse of opponents, and the equally unscrupulous pretension to an infallibility without appeal, are all the natural consequences of a system at war with fact and experience, acting on a mind in which reason and common-sense have been lulled to sleep, lest they should let in the light of day upon the delusions of theory. These characteristics place the vagaries of Hahnemann (where, no doubt, they were intended to be placed) quite apart from science, and beyond the bounds of rational discussion.

Such is the system of Hahnemann—a random shaft aimed at medical science under the influence of a blind instinct of destruction and a craving for notoriety and success;—announced to the world in a fragmentary form in 1796, and finally published in 1810, as a complete and inexpugnable "Organon of Rational Medicine." Already it has shared the fate of all such too-perfect systems; and none are now more anxious to destroy it than its professed adherents, who are almost everywhere found breaking bounds, and adopting to some extent the practice of the "old system," so intolerably abused by Hahnemann, and so entirely incompatible with their own. On the other hand, Homœopathy has done its work, and taught its lesson to that venerable, but sometimes erring, "old system" for which Hahnemann invented so many elaborate nicknames, and on which he expended such an amount of ponderous satire and vulgar dishonest vituperation. That something has been

learned from him, need not be doubted. The human mind is like the pool of Bethesda: it is when an angel troubles the water, that its most excellent virtues are brought into play. Medical truth can never really suffer, but must always in the end gain something from the rudest collisions with error and prejudice; and a Paracelsus, a Brown, a Hahnemann, have no doubt their appointed work to do in the history of its development. Let us, therefore, if possible, part from them in peace, thinking of them as no worse and no better than they truly were.*

* For a short sketch of the Homœopathic system, see the article Homœopathy in the Enyclopædia Britannica; which, with the Edinburgh Essay, and two short pamphlets published as a sequel thereto by Messrs. Black, completemy contributions to the subject.

APPENDIX.

ON SESSIONAL EXAMINATIONS IN MEDICAL STUDY.

I TRUST that the remarks which I have to make upon this subject may not be considered out of place, as an Appendix to this little book ; at all events, I am unwilling to lose the opportunity of addressing those concerned in Medical Education in reference to what I cannot help regarding as an improvement in detail of first-rate importance. My object is to bring the question fairly into view : if it shall prove to be less important than I suppose ; or if the same objects can be attained in any other way ; or if, finally, my ideas shall be found impracticable, I shall cheerfully acquiesce in the decision of those whose business it is to deal with these matters. But I believe that even in this case good will be done by discussion, and that some important practical improvement upon the present system must erelong be the result.

It has long been my earnest and decided conviction, that the institution of *Sessional Examinations as an authorized and regular part of the system of Medical Education*, is the one indispensable thing, without which all other efforts will be, comparatively, unavailing.

Let me, however, before going farther, make such explanations as may prevent a misconception of the object I have in view.

By a *Sessional Examination* I mean an investigation, at the close of each winter and of each summer session, as to the manner in which the work of that particular session has been done.

I do not mean a final and complete examination (with a view to "passing") even upon a limited number of subjects; nor yet an examination formally set forth in the regulations as embracing such and such departments; an ordeal which would, of course, require a correspondingly formal preparation on the part of the student. This would be not only comparatively useless, but in some respects injurious. What I would wish to see is a *boná fide* inquiry, on the part of the Colleges and Licensing Boards, and with the aid of the teachers (who alone are in a position to give such inquiries a fitting direction), as to the progress made, and the studies actually pursued, at each stage of the Student's career. The details of such an inquiry would, I believe, be very easily arranged, when its principle was once accepted and understood by all parties. It would, in fact, be merely an extension of the system of class-examinations at present pursued; with this difference, that the results would be officially noted, and the character of the examinations in some degree determined, by the superintendence of inspectors or examiners (not being teachers), who would be deputed by the Colleges for the purpose. In other words, the examinations would be conducted in great part, as now, by the teachers, and would have all the freedom and practical usefulness of a class-examination or competition; but it would be open to the examiners, or inspectors from the Colleges, to avail themselves of the results, and to report progress; and also, in doubtful cases, to institute any further inquiries necessary for their own satisfaction, or to enable them to record an opinion. If it be felt that this proceeding might in some special cases be open to objection, I would make

it possible for any one to refuse the sessional examination without invalidating his right to a final trial. Only, in that case, he ought to be subjected, at his final trial, to a much more severe ordeal than if he had gone through his curriculum in the regular manner.

The function of these examiners or inspectors should not be to *admit* or *reject*, as at the final trials, but simply to intimate and record their opinion; and this, partly to guide the student, and partly to lighten the work of the final examiners.

They would guide the student; for if they had reason to think he had done well, they would tell him so; whereas, if his position was doubtful, or bad, he would be made to feel that a verdict had been recorded against him, and that he must be careful to recover his lost ground before submitting himself for his final trials; or if not able to do this, he would be led in good time to abandon a profession for which he was manifestly unfitted.

On the other hand, they would lighten the work of the final examiners—*firstly*, because the really good men among the students would come to be so well known that they would hardly require a testing examination;—*secondly*, because most of the very indifferent or bad students would be effectually deterred from coming forward; and thus a large part of the drudgery of the final trials would be practically, though not formally, performed *in transitu*.

At the same time a wholesome stimulus would be communicated to the work of instruction in every school in which the system was adopted. Teachers would feel that they performed their duties under a greater amount of responsibility as to the welfare of their individual pupils; while the students would be made to feel practically at every step that active participation,

on their part, in the work of the class, was required to carry them successfully through their sessional examinations.

Let me now contrast the proposed system of Sessional Examinations with that at present existing. In this, the candidate has no intercourse with his judges until he is called up in the third or fourth year of his studies, for one or more final pass-examinations. In the interval between his *debut* as a raw student, and the period when he is brought up for judgment, it is, to a great extent, taken for granted that he has been indulging his desire of acquiring knowledge, in conformity with the arrangements of the "curriculum of study."

The present system is founded upon the theory that all the various minds engaged in prosecuting the study of medicine must pass through one and the same course of training; that their attendance on the same or similar classes implies, for all, the possession of similar opportunities of instruction; and that a certain modicum of information, ascertained by an hour or two of miscellaneous questioning at the end of the course of instruction, forms a fitting test of the ability and acquirements of the candidate. Each of these propositions is no doubt open to criticism; yet the result is, on the whole, probably not less satisfactory than in the case of other professions to which access is obtained in the way of examination. Moreover, it is true that by our Royal College of Surgeons in Edinburgh, and probably by other examining Corporations (including the different Universities), almost everything has been done that human ingenuity, aided by long experience, can devise, to make the present system work well. Nevertheless, I think it will be admitted by all who are cognizant of the details, that the following charges may not unjustly be brought against its working:—

1. The *ideal* standard of qualification is perhaps too high, while the *actual* standard is very low.

2. It is impossible to raise the actual standard very much, without a risk of doing great injustice in particular cases, and exercising a deterring effect upon the mass.

3. The final examinations are a very imperfect test of ability and knowledge.

4. They are no test at all of continuous and careful application throughout the course of study.

5. They are also no test at all of character, either moral or intellectual.

6. The curricula of study adopted by the Boards, although perhaps as well devised as is possible under the present system, are in some respects oppressive, arbitrary, and opposed to the development of the best energies of the student. (See the Note to the Introductory Address, p. 26.)

7. The modes of enforcing compliance, on the part of the student, with the regulations laid down for his guidance, are either inefficacious, or oppressive in their strictness. Moreover, where the latter is their character, they are notoriously productive of much greater evils; being frequently evaded both by students and teachers, so as to become, practically, quite inoperative.

In grappling with these serious difficulties, it appears to me that the only true remedies are those which are opened up by the system of Sessional Examinations. I shall endeavour to show this under three heads: 1*st*, Standard of Qualification; 2*d*, Efficiency of the Test; 3*d*, The Curriculum.

I. *The Standard of Qualification.*—I have said that the *ideal* standard is, even at present, high. Perhaps this remark ought to be confined to the strictly professional elements of medical

education; for it is well known that great deficiencies still exist in the requisitions of the examining Boards as to the matter of preliminary education. Strange to say, too, the examinations most deficient in this kind of requirement are precisely those in which the opposite was to have been expected. The Scottish Universities are notoriously behind almost all other Corporations in regard to the amount of general academic instruction required for their medical pass-examinations. Edinburgh is no exception to this reproach, though in many respects honourably distinguished among Scottish Universities; and none of her true sons can read without feelings of shame the burning, and perhaps too bitter, words of Sir W. Hamilton on this subject. But, confining attention in the meantime to the professional departments, it may be remarked, in general, that the requirements of almost all Boards represent a large and varied culture—so large and varied that many persons are now disposed to take objection to it as being beyond the powers of the ordinary student; and beyond, too, the necessities of his position.

The ideal standard, then, is high. The student is not only supposed to be thoroughly acquainted with Anatomy, Surgery, Medicine, Midwifery, in their practical aspects; he is presumed to have undergone a complete series of instructions in Chemistry, in Pharmacy, in Materia Medica and Therapeutics (with Dietetics), in Physiology, in Medical Jurisprudence; to which our College of Surgeons adds Botany, Natural Philosophy, and a certain grounding in Mathematics; while the University requires a complete course of General Pathology, of Botany, and of Natural History,—in all of which subjects, as in the others named, the respective Professors conduct examinations. It must be admitted that the range of study here required, if it were fully accounted for at the end, would amply tax the

highest energies of the student; nay, that it would over-tax them. The marvellous science of modern Chemistry alone, and the prodigious array of miscellaneous facts which constitute Medical Jurisprudence, are tasks which can only be mastered by the devotion of years to their special study; and which cannot, therefore, be fixed in the brains of the student of medicine within his ordinary period of study, except as a mere effort of memory—*i. e.* by a process of *cramming*. The same remark applies, to a great extent, to Botany, Natural History, General Pathology, and Materia Medica strictly so-called (apart from Therapeutics.) These sciences enclose a mass of facts which it is not possible, and not desirable if it were possible, that the student of medicine should know completely; for he can only know them at the expense of those occupations which will constitute the business of his life, and determine his usefulness to society.

But now we step down from our high ideal to the low actual. Is it not a matter of notoriety, that medical students in general know only a smattering of all these things? Nay, that their knowledge of them is precisely that kind of "little knowledge" to which Pope's well-known condemnation really applies—a *book* and *memory knowledge*, going no deeper than the surface, and quite useless for any good purpose, however potent it may be to conjure with. How many of our students could conduct an organic analysis creditably? I fear, very few. Nay, I suspect that the number is not great, if we may judge by actual appearances in the courts of law, who can be trusted to give satisfactory evidence in any case of poisoning of the slightest delicacy and difficulty. Yet they ought all, according to the regulations, to be versed in Chemistry, and to have run the range of Medical Jurisprudence.

The actual standard, then, is not nearly on a par with the

requirements of the curriculum. I shall afterwards inquire whether this be not, in part, because the requirements of the curriculum are too great: I am at present chiefly concerned to show that the actual measure applied to this portentous mass of professional acquirements is quite inadequate for the purpose. And this leads me to the second head of the argument,—viz. the

II. *Efficiency of the Test.*—I willingly suppose that the examinations of our public boards, are, at present, most conscientiously performed. I am convinced for myself, that not only is this the case, but that their tendency is, in general, to be quite as rigorous as is safe, upon the plan on which these examinations are conducted. Nay more, in the case of all those boards which are responsible to the profession itself, it is true that there never has been a disposition to lower the standard of requirement; but on the contrary, that the standard has actually been raised, within the last quarter of a century, to a very great degree. I see no symptom of that tendency to "competition downwards" in regard to diplomas, which some persons profess to dread; and I think it is plain that the honour and interest of the Medical Profession, in this respect, might be safely trusted within its own keeping, even were the Licensing Boards much more numerous than they are. The true cure for venality and corruption in diploma-giving is to bring the givers fully under the influence of professional opinion. Had the medical degrees of our Universities been at all times subject to the approval of those "Corporations" which they affect to despise, the gross abuses which are now a matter of history could never have occurred.

The objection which may most reasonably be made to examinations as at present conducted, is not that they are culpably lax, but that they are unequal in their pressure, and totally

inadequate to make those finer distinctions which are necessary to give perfect assurance of their efficiency. And further, that from their being all at the close of the student's career or near it, they are, in some respects, far *too severe a trial*, both for the firmness of the examiner, and the memory of the student. I believe that, on the whole, the distinction between the good and the very negligent is fairly and honourably made; but it will, I think, be admitted by the examiners themselves that scarcely anything more than this can be attempted. Among the heterogeneous mass of those who barely struggle through, there must be almost every grade of incapacity in detail; for it would be hard indeed to reject a poor fellow, after four years' hard study, on account of a few stupid blunders in chemistry or materia medica. Human nature would not permit so great an abuse of power; yet it might have been very right, could it have been done in time, to warn him that his chemistry or his materia medica were not up to the mark.

The recent movement, on the part of several of the public boards, in the direction of increasing the number of examinations, and of placing some of them nearer the commencement of the studies, shows that they are fully sensible of the evil, and anxious to remedy it. The initatory examination in Latin and Mechanics by the Royal College of Surgeons of Edinburgh was in every respect a great success. It has been attended by a most marked elevation in the standard of acquirement; and it is particularly pleasing to observe, that notwithstanding the greatly increased rigour of the trial, it has given equal satisfaction to the students and to their examiners After this great and wholesome change, the institution of Sessional Examinations in all the classes seems only to be another step in the same direction.

The object of the Sessional examination is not merely to *test*

the student; but, *in testing him, to guide and to warn him.* And this it will do before the impulse to study is exhausted; so that while good men are encouraged, and careless men admonished, the examination itself will, I believe, be equally popular with both parties. Only the very incapable will be discouraged by it; and surely, to these it would prove the truest boon of all, by warning them to abandon a profession for which are they unfit, without undergoing the disgrace and pain of a rejection at the end of their studies. The moral effect of the Sessional Examination would thus be perhaps its most valuable quality. Instead of sending the student back to his books with a feeling of sullen acquiescence in his fate, it would make an active diligent student of many a thoughtless lad, and would exert a quickening and invigorating influence over the whole course of medical education. It would do this, moreover, by acting on the teachers as well as the pupils. Both parties would feel a new interest in each other when they knew that their joint labours were to be submitted to an impartial scrutiny before three or six months were over. For while the student would be made to know his own individual deficiencies, the teacher also would come to be indirectly implicated in the verdict passed on his class as a whole.

The influence of Sessional examinations on the final trials is too obvious to require much explanation. A certain number of students at either end of the scale of merit would so completely earn their character on the way as hardly to require the final test, unless it were thought necessary as a matter of form. And among the intermediate or doubtful class, the doubt would in some be confined to certain subjects. The final examination would accordingly be, to a very considerable extent, guided by these marks, even where it was necessary to make it stringent and protracted. Finally, faults of character and

of judgment would come more under the cognizance of the sessional examiners than they can possibly do in the short intercourse which at present prevails between examiner and student. No one will deny that there are certain infirmities and certain vices which ought to preclude the attainment of a licence to practise medicine. But these are, for the most part, altogether beyond the ken of the present examiners: and accordingly it is notorious that men of weak, silly, and profligate character, who have been bad students and will be bad practitioners, often pass the ordeal with great ease, if they only happen to have been blessed with a tolerably retentive memory for facts. The demoralizing effect of such examples upon the students, who may easily draw the inference that character is of no account with their examiners, is not less lamentable than the result of the admission of such men to practise a liberal profession.

III. *The Curriculum.*—I now proceed to consider how the curriculum might probably be improved, as a secondary result of the institution of Sessional examinations. It is not my object to go into details on this subject, but only to point out what will not, I think, be disputed, that the curriculum, as at present arranged and enforced, is to a considerable extent to be viewed as a *substitute* for examinations—an accessory test of the attention of the student to his work. Not being able to lay hold of the intellect by a sufficiently fine and ample test, the Colleges and Universities seize the body of the student, and insist on its being rigidly confined in certain class-rooms for a certain number of hours a-day. They cannot compel the brain to imbibe knowledge, but they can make sure that the ears have been assailed by a certain amount of talking. Hence the overweening and almost exclusive importance attached to *lectures* in our curriculum: it is so easy to ensure, or to seem to ensure,

attendance on lectures; so difficult to do this in the case of practical instruction. I have more fully exhibited certain results of this tendency in the Note to the Introductory Address, before referred to.

With a more perfect system of examination, the strictness of the curriculum in this respect might be very safely relaxed at least to this extent—that a student who could show that he had been successfully studying surgery or medicine might be left to decide for himself, to a certain extent, whether he would study it in the lecture room, or in the wards of the Infirmary, or in both. I have no doubt, for my own part, that the really diligent student would make a very good use of such a liberty. It might be dangerous perhaps to give it to the idler. But under the system of Sessional Examinations, the idler would be very quickly brought to his senses, and it would be less necessary to restrict the liberty of the good because of the bad.

In the note above referred to, I have exposed one evil of roll-calls at lectures, as leading the student to neglect studies not less important than those of the lecture-room. I fear, however, that there is yet another and a much worse evil connected with enforced attendance on lectures. I wish to touch it lightly; yet I feel I should not be justified in leaving it unnoticed. It is notorious that a most demoralizing system of evasion exists in connection with certificates of attendance. This system has flourished for many years; it has now become confirmed into an inveterate habit, and seems sometimes to be practised almost without a thought that it is wrong. What is worse, teachers are deeply implicated in it, and certificates are often given in utter contempt of the regulations. Where such abuses exist and have long existed without an attempt at remedy; where the remedy, indeed, seems to have become impossible by long standing of the abuse, it seems

high time that the enforced attendance on lectures should be carefully looked into, with the view of being either thoroughly reformed or done away with. I believe that a system of Sessional examinations would permit us to modify it very considerably, and, in addition to other advantages, would enable us to get rid of the great evil just alluded to.

In conclusion, I have but a single remark to make upon the administration (so to speak) of Sessional Examinations. Supposing the principle conceded, its execution would be very much easier and more satisfactory could it be brought into operation by the joint action of all the licensing Corporations and Colleges. In this case, it could not be very difficult, I think, to appoint Examiners in all the more considerable Medical Schools, who, not being teachers themselves, would co-operate with all the teachers. The duty of these Examiners would be to report to head-quarters the state of the Schools to which they were appointed; the work done during each session would be recorded, together with a memorandum upon each separate class, and on each separate pupil, bearing that he had either been examined, or not; and if examined, then upon what subjects, and with what result. I have already remarked, that it would not be desirable for these examiners to have any power of final admission and rejection. They might, therefore, very well be a younger class of men than the final examiners, and eligible to office in the latter capacity only after having given evidence of fitness in the minor department. This would be another advantage of the system. It would be a school for examiners, as well as a stimulus to teachers and students. The Sessional Examiners would be kept, in virtue of their office, well abreast of the varied science of the day; and it would be from their ranks that the College Boards would naturally be recruited.

If the whole resources of all the Corporations were available, there could surely be no difficulty in finding qualified men. The minor schools might be disposed of by a process of visitation.

A duplicate of the memoranda upon his own case (as transmitted each session to head-quarters) might be given to every student for his guidance; and, in the event of his removing from one school to another, he might be entitled to place on record these memoranda, wherever he intended being finally examined. The student who could carry up a uniformly favourable series of memoranda would thus be known as a good student wherever he went, and would probably be very easily disposed of in the end. On the contrary, a student who could not bring up any favourable memoranda, and could not explain his not having obtained them in the course of his studies, would be justly tested by the most severe ordeal which the final examiners could employ. It would, however, be very probable, that no student would dare, at the last, to present himself without some evidence of good conduct during his studies.

I can imagine no more legitimate subject for harmonious combination of the Examining Boards, no really greater "medical reform," than this. But even in the event of harmonious and joint action not being attainable, I believe that every single school to which the system may be applied will be a gainer thereby; and that, in the end, both pupils and teachers will be amply satisfied with the results, while the College that adopts the principle will greatly enhance the value of its diploma, and confer a signal benefit on Medical Education. Am I too sanguine in hoping that the attention of our Medical Corporations may soon be given to this matter?

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