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MEDICAL EDUCATION.

The question as to the best modes of education of those who are to make medicine their profession, has been discussed by many thinking men. Still it appears to me that it has not come before the public in a manner commensurate with its importance. It has been dealt with principally by members of the profession; some of whom, no doubt, have held large and enlightened opinions, while others have looked at it from a narrower point of view, and confounded in a singular manner the questions of instruction and of education, forgetting that these are not the same, and that they imply considerations very much separated.

Let us assume that it is desirable to preserve for medicine the style of a learned profession, and inquire how it can be so handled as to keep its rank.

Now, learning is in a sense two-fold: it is of the past and the present; the past acting by tradition and record, the present by discovery; and thus the character of progressiveness belongs to the three professions of Divinity, Medicine, and Law. But, looking at their history and nature, we find that though they are all progressive, yet that in the rate and sources of their advancement, there is some difference. Divinity mainly deals with the past, and can hardly

progress by discovery, at least in a direct line. No doubt, it is capable of a large elucidation by studies from without; and we may hope that thus a broader and brighter light will be shed upon it.

If we now turn to Law, we find that hitherto, at least, its improvement has been based on the consolidation of materials already accumulated, and the wider application of principles already admitted.

But Medicine has been more directly progressive than either of its sisters. It deals with conditions which are ever changing, not only as to combination and result, but as to their very nature; hence its study must be from within largely. But it is also from without largely; for there is hardly any discovery in physiology, chemistry, or natural philosophy, that has not, or probably will not have, its direct bearing on the advancement of our science.

Yet this diversity as to the direct advancement of the professions relates more to the past than to the present. It is only as it has been; for there is no reason why all branches of human knowledge should not travel and conquer by the same paths. The degree of advancement in this or that direction, during any given time, may, nay, must differ; and wise and learned men have believed that there are points of inquiry, to which if man's intellect seeks to soar, it will find that its wings are of wax. But it is not to be denied that the sciences of the sister professions may be advanced by studies from without. A larger study of ethics will greatly improve the common and the equity law. The criminal law, from our wider knowledge of mental pathology, is every day becoming more humane, and therefore more wise; while pathological anatomy, chemistry, and the microscope, have aided the administration of justice to a degree that, a few years ago, no man could have foreseen.

So is it with Divinity. What light may not come from studies too long held to be foreign to it—from the general history of man—from archæology—from the history of living and extinct creatures of all kinds—the study of the crust of the earth—the science of language—and the laws of the latent and manifest life? Thinking on these things, may we not hope reverently, yet confidently, that all truth, whether revealed or discovered, will, in God's own time, be found to be in unison, and that the proofs of the complete correlation of His works and laws, will increase with every year of man's life on earth?

Let us now ask, what is Medicine? Is it an isolated science—an exception to all other branches of human knowledge—a study having no use for the great weapons of the human mind, observation, and the reasoning power? Are the studies of letters, the influence of history, ethics, and the laws of physical science nothing to it? I will not dwell on such questions, from my respect for your understandings. But what it is not, it may be wholesome to declare. It is not the result of a poor seed, sown on a raw and sterile soil. It is not an handicraft, governed by a fixed rule, or any set of rules, that you may learn by rote. It is not a study of fixed, but of varying conditions. It is no solitary science, but rather a complex system of knowledge of many kinds, derived from many sources,—from the observations of by-gone years, and the multiplied discoveries of the present day. It is related to, and inseparable from all other branches of human knowledge, from which it largely borrows, and to which it pays back with interest.

This being admitted, we may consider whether, in after times, the separation of the so-called learned professions will continue; or, at least, we may anticipate that their lines of distinction will not be so sharply cut.

In Southern Africa, the great apostle of Christianity and its attendant civilization is a Surgeon. In the savage districts of Borneo a mitred Bishop operates for cataract, and has healed on the Sabbath day, performing amputation of the thigh between the morning and evening services. Two of our most successful missionaries in China and in Persia were pupils in this hospital, and are members of the profession; and among ourselves we have witnessed the admirable results of the investigations, by a non-medical member of our University, into the nature of one of the most formidable and least understood of diseases.

When we look to the old Universities, we see signs of the coming of some such state of things; and among these are none more significant than the admission into the course of arts, for the professional student, of the natural sciences—of anatomy and chemistry, and, in Dublin, of surgery. Let us hope that the time is not far distant even when the students of Divinity and of Law will learn the structure of the human body, and become acquainted with the general laws of physiology.

In a discourse which I delivered some years ago, before the University of Dublin, I touched upon this matter; and every year since then I have been more impressed with the importance of physiological and medical study to the students of Divinity and Law; not only as a means of mental enlargement, by which, and by which only, we can hope to save the educated classes from being the dupes of charlatans, and the advocates of quackery and folly, but as affording them great help in their future positions. Were this so, our medico-legal trials would soon have a different aspect from that which now exists; and our clergy, in their parochial labours at home, and, still more, in their missionary work abroad, would find that they had, even in a limited knowledge of medicine, a

powerful—perhaps, the most powerful—means of extending their influence among the uncivilized races of man.

But our tendencies are various, and society is in need of servants of various kinds; some to do the higher or more intellectual, some the lower or mechanical work. Let those who aspire to the foremost rank remember, that, to a great degree, the branches of knowledge, which, as means to an end, they must cultivate, are correlative; and that the powers of observation, experiment, induction, and the right use of the reasoning faculty, are the sources of all success in whatever special direction we seek to act. It is plain that the larger the mental culture,—the better the soil which is to receive the seed of any special science, the richer will be the crop. The old adage, that a little knowledge is a dangerous thing, is not always true. In general, a little knowledge of anything is better than no knowledge at all; but its danger or its safety depends altogether on the previous cultivation of the mind that receives it.

This brings before us the subject of education. I am not going to tell you how to work, nor shall I now take up your time by exhorting you to be diligent. In every class of students there are many to whom such advice is not needed, and some to whom it would be useless. But I wish to speak to you on medical education generally, knowing that, although you are now in the state of pupilage, and compelled to follow certain rules, some good and others bad, you will, in your turn, become lawgivers, in some collegiate or corporate capacity, and have power to bring about a better state of things.

The chief, the long-existing, and, I grieve to say it, the still prominent evils among us, are the neglect of general education, the confounding of instruction with education, and the giving a greater importance to the special training, than to the general culture of the student.

Now, it is not speaking too strongly, when I declare that the student who has been induced to neglect and to despise the extra-professional study, is a betrayed man: he will find this out when it is too late; and though he may, and probably will be able to live by his profession, he will occupy but a second place in it, and be less a support than a weight and a clog upon it. Though specially instructed, he is not, therefore, an educated man: though a member of the noblest of professions, he finds himself inferior in mental culture to those who are, perhaps, beneath him in natural gifts, and he occupies, in consequence, a lower place in society.

The sources of this state of things are many. Some of them are of ancient date. That, in former times, the Universities did little to foster medicine must be admitted. Whether this proceeded from the old antagonism between Divinity and Physic, or from causes accidental, such as locality and the want of means for anatomical and clinical studies, is a question; but it is clear that, in these countries, the University system was more in relation to the study of letters, and the training for the Church and the Bar, than to Medicine. Medical faculties, indeed, there were; and we know that both in Oxford and Cambridge, forms existed for the conferring of degrees in Surgery, but these latter had long fallen into disuse. To this matter we shall return.

A more obvious cause, however, was the establishment of our medical corporations, of which the main supports were the fees charged on the granting of diplomas. It became a matter of pecuniary interest to smooth the way to the obtaining these licenses, as far as this could be safely done; so that the larger interests of the student and of the profession were thus put aside. The examinations, in process of time, became more and more special. Certificates of study, and some form of a medical curriculum, were subsequently re-

quired; but either was no investigation made as to the general knowledge of the candidate, what it was, or by whom given, or the testing of his knowledge of letters was of the most shadowy kind, the object being rather to fulfil a form, than to enforce education.

But, further, when any of these corporations or colleges became connected with, or largely dependent on a school of medicine, the evil was increased; and the student was taught, not only in private, but in public lectures, that he should make his special training the great object. He was taught to neglect the larger culture of his mind, and the lower aim was ever kept before him. This state of things, too, was not confined to the purely medical corporations; for it became the practice, even of Universities, to give degrees on an education in medicine, in which the study of arts was virtually ignored. No wonder that, in course of time, the claims of medicine to be considered as one of the learned professions were lowered—no wonder that the confidence of the public in it was so shaken that, in the Medical Act, clauses, framed to protect error and quackery were introduced, and are now the law of the land.

Now, all men should raise their voices against the continuance of this state of things, and more especially those who are members of the profession itself; for it is plain that, unless all this be changed, unless this cancer be eradicated, the time will come when we shall be shamed by seeing the more difficult problems of medicine attempted and solved by men outside the profession, men of large and liberal education, who will succeed in doing that which its proper members were unable to perform.*

* How opposite has been the system of our medical corporations to the teaching of Lord Bacon! See his concluding words on the errors which mar the progress and the credit of learning:—

"But the greatest error of all the rest is the mistaking or misplacing of the

Among the many errors which we must try to get rid of, in dealing with this matter, there is one of such magnitude, that to its existence may be traced most of the evils that beset the student of medicine. It is one, too, which, though ignored in theory, is kept up in practice, by some in high places, who look to their special interests rather than to the public good. I speak of that error of supposing that the training of the physician or surgeon should differ from, or be in any way inferior to that in use by candidates for the Church or the Bar, or by those who are to fill an independent place in society.

It is true that in the ranks of medicine we find a long array of names distinguished in literature, the abstract and experimental sciences, in natural history, and in moral philosophy; but, nevertheless, it must be admitted that, looking at the mass of our profession, the numbers who have received an academical or other form of extended education, are insignificant as compared with those in the Church or the Bar. Doubtless this difference has arisen in part from the higher social status awarded from early times to the clerical and legal professions; so that men seeking to enter them felt it more necessary to qualify themselves to move in the higher walks of society, and so took a larger and more liberal edu-

last or furthest end of knowledge: for men have entered into a desire of learning and knowledge, sometimes upon a natural curiosity and inquisitive appetite; sometimes to entertain their minds with variety and delight; sometimes for ornament and reputation; and sometimes to enable them to victory of wit and contradiction: and most times for lucre and profession; and seldom sincerely to give a true account of their gift of reason, to the benefit and use of men: as if there was sought in knowledge a couch whereupon to rest a searching and restless spirit; or a tarrasse for a wandering and variable mind to walk up and down with a fair prospect; or a tower of state, for a proud mind to raise itself upon; or a fort or commanding ground, for strife and contention; or a shop, for profit and sale; and not a rich storehouse for the glory of the Creator, and the relief of man's estate."

cation. Hence, in dealing with the error to which I have alluded, we must bear in mind that, while its operation has been a source of evil, it has been itself partly the effect of custom and of circumstance.

It is further to be considered that in medicine young men have a better chance of earning a livelihood at an early period of their career than at the Bar, and this is a reason why men of limited means are more tempted to enter Medicine than the other professions. The profession of Medicine, then, is more largely recruited from classes of society below those which value academic teaching, or that can well afford an extended education for their children. The *res angusta domi* is too often a cause of the neglect of the general, and the sole adoption of the special education.

But a cause equal, if not superior in effect to all these united, is this, that to a great degree the teaching of medicine has become a trade, which is fostered by means only met with in the lowest orders of trade. Those who have thus dealt with teaching, have been too often the lawgivers, and, for their own immediate profit, have discouraged the mental culture of the student, directly, by giving medical titles, even those of honour, on a merely special education; and indirectly, by so multiplying the courses of lectures necessary to be attended by the student—courses even on the same subjects—that reflection, self-culture, and extra-professional study, were made almost impossible to him.

Now let us, after having looked these things in the face, inquire what may be done, or what has been done, to lessen the evils now spoken of.

And here it is but just to the old Universities of England and Ireland, to remind you that they have ever kept up the dignity and the reality of their medical degrees. They have not sought to create revenue for their

schools, and increase the numbers attending in their medical classes, by lowering the degree in Medicine below that in Divinity or in Law; but have insisted as a condition for that degree, not alone on the fulfilment of a medical curriculum, but also that the candidate should take his education in arts, and be a University man in the full sense of the term. They have taken a right view of the first objects of their foundation, which are the general mental culture and the moral training of all over whom their powers may extend. With them, the general culture has been the leading object, and has been fostered and valued, first, for its own sake, and next, as giving the only safe ground for such special instruction as may be requisite for this or that calling.*

But let us look at recent events, and see how far they are indicative of a better state of things. It is significant, as

* In the following extracts from the work of a late writer, the nature and advantages of an University education are so wisely and so temperately set forth, that I gladly insert them. Let us hope that those who still advocate the purely special education will in time admit their value:—

"Let us take 'useful' to mean, not what is simply good, but what *tends* to good, or is the *instrument* of good; and in this sense also, Gentlemen, I will show you how a liberal education is truly and fully a useful, though it be not a professional education. 'Good,' indeed, means one thing, and 'useful' means another; but I lay it down as a principle, which will save us a great deal of anxiety, that, though the useful is not always good, the good is always useful. Good is not only good, but reproductive of good; this is one of its attributes; nothing is excellent, beautiful, perfect, desirable for its own sake, but it overflows, and spreads the likeness of itself all around itself. Good is prolific; it is not only good to the eye, but to the taste; it not only attracts us, but it communicates itself; it excites first our admiration and love, then our desire and our gratitude, and that, in proportion to its intenseness and fulness in particular instances. A great good will impart great good. If, then, the intellect is so excellent a portion of us, and its cultivation so excellent, it is not only beautiful, perfect, admirable, and noble in itself, but in a true and high sense it must be useful to the possessor and to all around him; not useful in any low, mechanical, mercantile

bearing on these questions, that the Medical Council have marked their sense of the predominating importance of

sense, but as diffusing good, or as a blessing, or a gift, or power, or a treasure, first to the owner, then through him to the world. I say then, if a liberal education be good, it must necessarily be useful too.

"You will see what I mean by the parallel of bodily health. Health is a good in itself, though nothing came of it, and is especially worth seeking and cherishing; yet, after all, the blessings which attend its presence are so great, while they are so close to it, and redound back upon it, and encircle it, that we never think of it except as useful as well as good, and praise and prize it for what it does, as well as for what it is, though at the same time we cannot point out any definite and distinct work or production which it can be said to effect. And so as regards intellectual culture, I am far from denying utility in this large sense as the end of education, when I lay it down that the culture of the intellect is a good in itself and its own end: I do not exclude from the idea of intellectual culture what it cannot but be, from the very nature of things; I only deny that we must be able to point out, before we have any right to call it useful, some art, or business, or profession, or trade, or thing, as resulting from it, and as its real and complete end. The parallel is exact.—As the body may be sacrificed to some manual or other toil, whether moderate or oppressive, so may the intellect be devoted to some specific profession; and I do not call *this* the culture of the intellect. Again, as some member or organ of the body may be inordinately used and developed, so may memory, or imagination, or the reasoning faculty; and *this* again is not intellectual culture. On the other hand, as the body may be tended, cherished, and exercised with a simple view to its general health, so may the intellect also be generally exercised in order to its perfect state; and this *is* its cultivation.

"Again, as health ought to precede labour of the body, and as a man in health can do what an unhealthy man cannot do, and as of this health the properties are vigour, energy, agility, graceful carriage and action, manual dexterity, and endurance of fatigue, so in like manner general culture of mind is the best aid to professional and scientific study, and educated men can do what illiterate cannot; and the man who has learned to think, and to reason, and to compare, and to discriminate, and to analyse, who has refined his taste, and formed his judgment, and sharpened his mental vision, will not indeed at once be a lawyer, or a pleader, or an orator, or a statesman, or a physician, or a good landlord, or a man of business, or a soldier, or an engineer, or a chemist, or a geologist, or an antiquarian, but he will be placed in that state of intellect in which he can take up any one of the sciences or callings I have referred to, or any other, with an ease, a grace, a versatility, and a success, to which another is a stranger. In this sense, then, and as yet I have said but a very few words on a large subject, mental culture

general culture in this wise—that their report on medical education deals almost wholly with the subject of general, or extra-professional training. It hardly touches on special education, except so far as relates to the mode of conducting examinations. The Council have obviously felt that the greater question claimed their first care.

Let me read to you the first recommendation of the Council:—

"That all medical students pass an examination in general education before they commence their medical studies."

Now, it may be safely said that, had no other result followed the Medical Act than this simple but pregnant direction, this would have more than compensated for the time and trouble expended in obtaining it; for it strikes at the very root of what has been the disgrace of medicine, namely, the coming into the profession of such numbers of uneducated men. I use the word deliberately; for the

is emphatically *useful*."—*Discourses on the Scope and Nature of University Education, by* JOHN H. NEWMAN, D. D., 1852.

The following observations from the writings of Mr. Davison are quoted by the same author:—

"We admit that when a person makes a business of one pursuit, he is in the right way to eminence in it; and that divided attention will rarely give excellence in many. But our assent will go no further. For, to think that the way to prepare a person for excelling in any one pursuit (and that is the only point in hand), is to fetter his early studies, and cramp the first development of his mind, by a reference to the exigencies of that pursuit barely, is a very different notion, and one which, we apprehend, deserves to be exploded rather than received. Possibly a few of the abstract, insulated kinds of learning might be approached in that way. The exceptions to be made are very few, and need not be recited. But for the acquisition of professional and practical ability, such maxims are death to it. The main ingredients of that ability are requisite knowledge and cultivated faculties; but, of the two, the latter is by far the chief. A man of well-improved faculties has the command of another's knowledge; a man without them has not the command of his own."

holder of a diploma in medicine or surgery, obtained by examination in a special art, is not, therefore, an educated man: and it is but too well known that many of those who obtained these qualifications were so ignorant, as not to be able to write their own language correctly. They knew nothing of literature or of ethics, and little, indeed, of the exact sciences. Unfitted by habits and modes of thought for mental advancement, they entered on practice; but took a low place in society, because, from the want of mental culture, as I have said before, they were unable to support the position of gentlemen, or preserve the dignity of their profession.

The next regulation of the Council is, that all medical students be required to be registered; and this is followed by another, declaring that, previous to his registration, the student must pass an examination in arts. Now, as four years constitute the minimum time for professional study, and as the age of twenty-one is fixed as the earliest at which any license can be obtained, the time of the student may be spent up to his seventeenth year in his general or extra-professional studies.

Now, let me draw your attention to the all-important resolutions of the Council, referring to the arts examination, which must precede the registration of the student:—

"That as far as may be practicable, testimonials of proficiency granted by the national educational bodies, according to the following list, be accepted, with such modifications as the Medical Council may, from time to time, think proper to make.

"That the examination in general education be eventually left to the examining boards of the national educational bodies recognised by the Medical Council."

You are to understand that by the term national educational bodies, is implied those bodies that are entrusted

with the education and examination in general knowledge, in literature, ancient and modern, in science, abstract and experimental, in ethics, and in logics, and so on. But it does not include those bodies or corporations that deal only with medicine or surgery, or medicine and surgery. It is not the desire of the Council, evidently, that these preliminary examinations should be held by such bodies. The old system, by which Colleges of Physicians and Surgeons, and the Corporations of Apothecaries, assumed the functions of examiners in arts, is plainly reprehended, and, it is to be hoped, will be suffered to exist but for a time, so as to smooth the way for a better state of things. Accordingly, we find another resolution, which clearly marks the opinion of the Council as to the abuses inseparable from the old system:—

"That students who cannot produce any of the testimonials referred to in the third resolution, be required to pass an examination in arts, established by any of the bodies named in Schedule A of the Medical Act, and approved by the General Council, provided that such examination be in every case conducted by a special board of examiners in arts."

It is obvious, however, from the context, as well as from the words of this resolution, that it is to be taken only in the light of a provisional rule, and by no means as an approval of the system under which medical corporations take upon themselves to judge of the arts education of the student. Let us hope that our Colleges of Physicians and of Surgeons will act according to the spirit of these most wise regulations; perceiving that, as they were incorporated for the protection and benefit of the public, their true interests, and those of society at large, should be the same. Let us hope that in time they will learn that their great function is to watch over the moral, the intellectual, and the social

state of the profession, and that they will waive or resign whatever powers they may possess of perpetuating a system so fruitful in mischief.

Looking over the list of the examinations and qualifications in Arts sanctioned by the Council as to be accepted for the registration of the student, we find them to vary from a high to a low standard,—from the receiving of a degree in Arts to the passing of a matriculation examination in a University. The middle-class examinations of the English Universities are also admitted. Now, it is objected to this, that the standard has been let down too low. But those who so object should remember that a great reform has been inaugurated—that such a reform could not be effected *per saltum*,—that some education in Arts was clearly better than none at all,—and that, when the public mind becomes more alive to the value of general education, and our school and home training is improved in this direction, it may be possible and desirable to insist on a higher standard for this preliminary education in Arts.

Here I must notice an opinion often put forward by many who admit the necessity of a large mental culture for the medical student; it is that all his studies in arts should be preliminary. Those who so think say, by all means let the student be well educated; but do not, after he has entered on his medical studies, let his mind be distracted by reading Greek and Latin, and working at mathematics or physics. Let him attend to his anatomy, and to his lectures, and to his hospital, and to his grinder, and that is the way to make a surgeon of him. Now, what does all this come to, but the wish to produce the surgeon with the maximum of instruction, and the minimum of education? Is it not another instance of the tendencies of interested men to press down the position of medicine for their own ends? Why should the student be compelled to forego the cultivation

of his mind, because he has entered on a special study? Why should he not study whatever he pleased, and how and when he pleased, if he be found at the end of his work worthy to be admitted into the profession? Will he be less fitted to take his place in society by having gone through an University, where, putting aside his scholastic advantages, he learns to know himself in some fashion—to lose his prejudices—to profit by the examples of wise and well-ordered men, who may be even his cotemporaries—to learn to submit to discipline—to enlarge his mind by communication with educated men of various pursuits and knowledge—and to be trained to remember his Creator in the days of his youth? Will he be a worse man by all this? Will he be a worse physician, by being a good scholar and logician; a worse surgeon, by having a large knowledge of mechanical science; or a worse pathologist or physiologist, by being an accomplished chemist?

The doctrine that all general education is to be wholly preliminary is specious, but sophistical. It is dangerous, too, as it readily finds acceptance with the parents and guardians of young men going to medicine. But the result of the University system gives it a full confutation, and has shown that the study of medicine and of arts may proceed simultaneously and successfully. I can say, from my experience as an examiner in the University, and as physician to this hospital, that a considerable proportion of our best students in practical medicine and surgery, have been men who have not only obtained their degrees in arts, but have done so with honors.

I have heard it argued that, because the regulations of the Council bore so much on the preliminary education, that therefore the contemporaneous education in medicine and general knowledge is not encouraged by that body.

But we have only to refer to the Report, and read the concluding resolution :—

"That it is not desirable that any University of the United Kingdom should confer any degree in medicine or surgery, whether that of Bachelor, Doctor, or Master, upon candidates who have not graduated in arts, or passed all the examinations required for the Bachelorship in Arts, or the examinations equivalent to those required for a degree in arts."

I need not here point out to you what local interests, and what systems of medical and surgical education, are affected by this remarkable expression of opinion; but I gladly present it to you, as showing that there is a right spirit working in the medical mind of these countries. I pray you to take note of this, that these higher titles and distinctions are advised to be given, not on accumulation of special studies, but upon education in the real sense of the word; upon the extended culture of the mind, and on that only.

We cannot doubt that a greater tendency to the University education of the Physician and Surgeon is showing itself. In the medical classes of the School of Physic, which are larger this year than they have been for many years, more than three-fourths of the pupils are on the rolls of the Dublin University as students or graduates in Arts. Oxford has taken a great step in advance, and may be said to have revived and reconstructed its medical faculty; and it has munificently provided all the means for the study of the medical sciences. Cambridge has followed Dublin in placing Surgery on a level with Medicine, by giving it academic rank. With these facts before us, we may hope that, ere long, the social position of our profession will be greatly improved.

Turning now to Special Instruction, let us inquire, is our

system a good one? Has it become excessive? Is it defective in amount? Should it be extended, or reduced? Should the list of its subjects be lessened or enlarged? and, above all, should the coercive system, by which the mind of the student is so fettered, be relaxed?

Public opinion has gone some way in solving these questions, and in admitting that a great error is at the bottom of all our existing plans of medical education, which is, that in place of education, we have in most places nothing but instruction, and that not of the best kind, because it is the opposite of self-instruction.

It is to be doubted whether any man can be taught safely or thoroughly by another, when the matter to be taught or learned requires an independent exercise of mind. A good teacher should seek rather to point out the landmarks of the subject, dwelling more on its difficulties, and the mode of dealing with, and, it may be, lessening them, than on its ascertained facts. He should seek to show his pupil how to teach himself, rather than fatigue him by a detail of what is determined. By the latter course, so common in schools, the student's chance of mental exercise is taken from him. But he may still strive to exercise some power besides that of memory. He may be convinced of the value of self-culture; but what if he is not allowed time to practise it?

Now, it is not overstating the case when I say, that in his attendances on triple, double, and single courses of lectures, in the dissecting-room, on the hospital, and, lastly, on the grinder, every available hour of the day is consumed. Is any other profession studied, or compelled to be studied, in such a fashion? Can the mind of the student be able to work for any good after the physical and moral exhaustion caused by eight or ten hours of forced labour, on a crowd of scarcely connected subjects? It is plain that such a sys-

tem is a vicious one; and, as a proof of its inutility, to say nothing of its mischief, there is the great fact that the student does not trust to it. Deprived of the opportunity of educating himself, he perforce joins the class of the crammer. He is not to be blamed for this. The fault is not with him; neither does it rest with those who so profess to teach; but it lies at the door of the originators of a system by which the medical curriculum has been so overloaded.

Now, what is the position of the student? The authorized system of teaching is notoriously insufficient to "pass him," using the common language; but the unauthorized teacher is able to do so, and therefore the student rests upon him, not to be taught his business, but to pass his examination. The evil has gone very far, and will go further still. Even now some resort to this system from the very first year of their study, and sit to be crammed for two hours a day, to the destruction of all self-reliance, and the prevention of self-culture, for the purpose of obtaining the semblance of learning, which also is to be employed, not for its progression, to use the words of Lord Bacon, but merely for its use.

The use of this knowledge is even lower than that indicated by Bacon, for it is simply to enable the student to deceive his examiners.

Speaking of modes of teaching, this great thinker shows that what is to be taught, or, as he styles it, *the tradition*, is neither in its method nor nature material only to the *use* of knowledge, but likewise to its *progression*. "For," he says, "since the labour and life of one man cannot attain to perfection of knowledge, the wisdom of the tradition is that which inspireth the felicity of continuance and proceeding. And therefore the most real diversity of method, is of method referred to *use*, and method referred to pro-

gression: whereof the one may be termed magistral, and the other of probation.

"The latter whereof seemeth to be *via deserta et interclusa.* For as knowledges are now delivered, there is a kind of contract of error between the deliverer and the receiver: for he that delivereth knowledge, desireth to deliver it in such form as may be best believed, and not as may be best examined; and he that receiveth knowledge, desireth rather present satisfaction, than expectant inquiry; and so rather not to doubt, than not to err: glory making the author not to lay open his weakness, and sloth making the disciple not to know his strength."*

But it is not on the indolence of the student, or the pretensions of the crammer, that we are to charge the great evil which flows from this system. Two causes have long existed for it; and while they continue, it is hopeless to expect any change for the better.

The first, which has been just now indicated, is the overloading of the curriculum, for no conceivable object but the benefit of those who live by teaching. The student is called on to attend every day of the session on such a multitude of lectures, given, of course, in rapid succession, as often to act in really paralyzing his brain. Double and triple courses of lectures are still demanded to be attended, and his physical and mental power gives way under such a system.

The second is related to the first, and it is to be found in the long-existing terminal examination for the degree or license. From the day the student begins his task, the terrors of this examination are before him; and no wonder, when he thinks that on that day of trial, when the matter at stake is his future name and fame, he will or may

* "Advancement of Learning," Book xvii.

be called on to answer examiners who forget sometimes the difference which should exist between an examination which is competitive, and one for a license, and seek to find out less what the candidate knows, than what he does not know—an examination in which he is, or may be, called on to answer in Anatomy—general and descriptive, Comparative Anatomy, Physiology, Medical Pathology, Pathological Anatomy, Chemistry—organic and inorganic, Botany, Vegetable Physiology, Practice of Medicine, Therapeutics, Materia Medica, Surgery, Surgical Anatomy, Surgical Pathology, Midwifery, Toxicology, and Medical Jurisprudence.

It is not that an idea exists of the inutility of any one of these subjects; but the evil is in compelling a candidate to answer in so many in a limited space of time. It is a system the evils of which have increased, in place of diminishing. An error on the part of those who have made such laws, is naturally met by deceit in those who have to submit to them.

All these evils plainly flow from the fact that the teaching of medicine has so largely passed into the hands of the purely medical corporations, or been conducted too much after the manner of a trade by schools under their patronage. Wittingly or unwittingly, they have all missed the great truth, that the overloading of the special instruction will not help, but really retard, the production of the higher class of men.

In what other profession are the aspirants so misused? It was not in this fashion that the fathers of British medicine were moulded, nor our great jurists, or our learned and pious theologians were trained. Will not its result be, at the best, to produce a crowd of mediocrities, and with no chance, or but a little one, of the development of the larger man? For by this machinery of special educa-

tion we so stunt and shackle the student's mind, that when at last he is set free, his nobler powers are dwarfed, and his fitness for a high social place is greatly damaged.

These things cannot go on. Society is becoming too enlightened to bear with such a system, and we may hope that its days are numbered. Indeed, in the recommendation of the Council to separate the professional examination into two parts, one of which is to take place at the termination of the second year of study, we may see the coming of that wholesome change, which will make the mode of examinations in medicine similar to that used in the courses of arts in the old Universities, The student would thus be relieved from the necessity of being prepared to answer at one occasion in a multitude of subjects. He could advance step by step, without hurry or forcing. The examinations would be educational. Rejection at any one of them would not damage his future position; and this circumstance would leave the examiners more free to act in their decisions; and the literature of the profession, now so much neglected, could be more easily made a part of the course of education.

It is to be feared that the competitive system lately adopted in our public appointments will tend to depress the general education of our young men, and foster the system of special instruction. Such a result, acting as it would to the prejudice of University teaching, might be a serious evil. No doubt the State is now entitled to the services of the best men; but the question to be solved is, how it is to get the best unforced men? Great difficulties meet us here. Perhaps, if a power of recommendation, if not nomination, to the higher appointments, were to be given to the great educational bodies, the evil would be lessened; for then students might receive the offer of these appointments simply on their positions in their arts' study; and, having so

far succeeded, they could then, if necessary, go through such special training as their future callings might require.

Looking to the extra-professional education and the self-culture of the student, it is plain that in his purely medical curriculum he should be relieved from much that is coercive; aud the question arises what portions of it appear proper to be enforced? I have long believed, that if compulsory attendance is to be insisted on, it should be only on such courses in which the teaching is demonstrative. I believe that great good would follow from such a system, and that a higher class of man would be thus produced in our schools. Let the student be only compelled to attend such courses as those of descriptive and practical anatomy, descriptive and practical chemistry, clinical medicine, and operative surgery, all of them subjects which he cannot reach or study in his closet; but let him be emancipated from coercive attendance on systematic lectures. What appears desirable is, not that we should abolish chairs in materia medica, botany, and other branches—we should rather preserve and endow them so that first-class men would seek to fill them; but let it be a matter of option to the student to attend the courses belonging to them; and if the chairs are worthily held, their occupants will not want for pupils.

There is another abuse or evil which hangs on those now indicated,—I mean the certificate system. We cannot invent a law which will make men honest, but it is quite possible to make such laws as will lessen the temptation to be dishonest. If the number of required attendances be diminished, so will the number of certificates of attendance sought for and granted be lessened, and a great evil be reduced, if not removed. It is admitted that in this matter great laxity has prevailed here and elsewhere, partly arising from interested motives on the part of the granter of the document,—partly from indolence and want of

method in the schools,—often from a mistaken good-nature, making the teacher slow to stop the progress of the student, who, though inattentive, may be otherwise estimable, and partly from want of truth in the applicants themselves; the result of the whole being the issuing and the using of a document too often untrue, a certificate purchased, not earned.

Now, consider the effect of this on many young men, of whom it may be said that they enter the portals of an honourable profession by being guilty of falsehood, or the subornation of falsehood. Is this a fitting commencement of a professional life, in which honour is so indispensable and so precious, that he who wants it, or he who has soiled it, has no business there. It is important, in relation to this subject, to observe, that the reports of the General Medical Council show, that a large portion of the cases adjudicated upon by them, relating to persons guilty of conduct infamous in a professional point of view, had reference to the cowardly vice of falsehood, in reference to the documentary evidence of age, to the obtaining of diplomas, to the dates of diplomas, and, lastly, to the question of identity.

Gentlemen, whatever may be the value of the views now laid before you, no doubt can arise as to the weight and interest of the subjects of the education, and consequent usefulness and status of our profession. I have not spoken to you as to a number of young and unfledged students, requiring to be spoonfed, and coaxed to learn the alphabet of their work. I have addressed you as men of intelligence, of courage, and of a noble ambition, and, I trust, also, as the future lawgivers and sustainers of our common profession. Let us, then, all labour as we best may to diminish the lets and hindrances which beset the study of medicine. Let us labour to place the teaching of medicine in its true position. Let us emancipate the student, and give him time and op-

portunity for the cultivation of his mind, so that in his pupilage he shall not be a puppet in the hands of others, but rather a self-relying and reflecting being. Let us ever foster the general education in preference to the special training, not ignoring the latter, but seeing that it be not thrust upon a mind uncultivated or degraded. Let us strive to encourage every means of large and liberal education in the true sense of the term, and so help to place and sustain our noble profession in the position which it ought to occupy.

THE END.