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# Medical Training in Aberdeen and in the Scottish Universities:

## AN ADDRESS

DELIVERED BEFORE THE ABERDEEN MEDICAL STUDENTS' SOCIETY,

ON FRIDAY, 16TH NOVEMBER, 1877.

BY

## ALEXANDER OGSTON, M.D.,

HONORARY PRESIDENT OF THE SOCIETY. SESSION 1877-78.

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## Medical Training in Aberdeen and in the Scottish Universities.

Gentlemen,—Allow me to offer you a hearty welcome to the Session of our Debating Society that commences to-night, and to the Session of our Medical School that has just begun. May the close of both find us all wiser, healthier, happier, and better friends.

I must thank you for the honour I owe to you of occupying my present position. I am so sensible of my unworthiness that I would have preferred seeing some better man in my place; but, being here, I shall do my best to keep up the lustre that has been thrown on the office of Honorary President by my predecessors, and I know you will not be very hard upon me if I fail.

It is the fashion of the present day roundly to abuse, or altogether to abolish, such things as introductory lectures, opening orations, and graduation addresses, and perhaps they are tiresome. Yet everyone who sees and sympathises with the coming together again of the elements that constitute a medical school, and the mutual attrition of professors, teachers, and students, in lectures, laboratories, dissecting-rooms, and hospitals; knowing that they will act and react, work, and ferment, and modify, till at the end of the appointed months they again fly out of each other, having discharged their functions for a time; everyone who sees this must feel that he would like to put in an oar, if it were only to say one word that might contribute to goodwill and progress, a word that might be felt as coming from a friend at the time, and perhaps be kindly remembered in after years. Friendliness lies at the root of all such addresses, and therefore they are listened to

with warm approval if good, or with good-humoured pardon if bad.

There is one thing which, though unacknowledged, has, I believe, been at the bottom of the disgust often felt towards introductory addresses. This is that they are monotonously Time after time those who deliver them have piled good advice on him who listens to them, viz., the student, have taken him for their text, and analysed, criticised, and sermonized on him till his most intricate anatomical structures have been as it were gone over and worn threadbare; while there is no opportunity given for a turning of the tables, and for the exercise of a wholesome criticism by the student of his teachers, his training, and his school. This is, in sober earnest, a matter to be regretted, for the student, unwarped by age and whims, and possessing a judgment fresh and unfettered by prejudices in favour of existing institutions, is really likely to be a good and just critic, and is acknowledged by those who best know him to be so. Hence it seems to me that an occasional student's introductory lecture to his teachers would really be more productive of good than the present persistent flow in the other direction.

If, at the present moment, I had been twelve years younger, I am sure the temptation to give a little advice to teachers from a student's point of view, and to essay a little benevolent criticism of them, would have been irresistible to me, and perhaps not totally unproductive of good. But years blunt the edge of temptation, and I shall, so far, resist and overcome this one.

I say, so far, since I cannot altogether in preparing this address get the student out of my head, for I have a genuine sympathy with him, whether he be what is generally called a good student, a fair student, or a bad one. These are names often thoughtlessly bestowed by those who do not know him or his proper work, who judge him, as they would a sewing machine, by the amount of work of a certain sort he can get through in a given time, applying to him a test that perhaps it is hardly fair to apply.

It is a serious error to call only the man who grinds day

and night, and takes highest honours under our present system, good; and him who is deficient in the knowledge it requires, bad. Many a good man revolts at the style of work and cramming which at present are required, and fails totally in his endeavours to accommodate himself to it; although in after life he turns out to be admirably suited to succeed in practice, and even becomes an ornament to the scientific profession he has chosen. Many a one, on the other hand, attains distinction at his classes and examinations, but fails in after life, in spite of the start such success lends him, in showing himself to be more than a very ordinary example of his kind. It is not true that the so-called good student has the monopoly of industry and intelligence, any more than it is true that he who has shown himself a moderate, or even an inferior student, has always himself to thank, and has deserved his failure by his own stupidity and want of application.

Perhaps these statements are a little strong, but I shall let them stand, as I believe they are not very far off the truth, and they will serve as a sort of text for the other remarks concerning students which I shall have to submit to you. I have preserved the instincts of my student days, have lived among students ever since those days, and believe I know as much about the Aberdeen student of Medicine as any one. Strange to say, I have arrived at a number of conclusions regarding him that are not generally recognised as correct. I am sure they are true, and advance them in all seriousness, and yet am prepared to have them received with unbelief and treated with scorn. I believe the Aberdeen medical student to be an illused man. I believe he is, in this great university as in many other universities, misled, overworked, and badly advised; and, to cap his wretchedness, he is unaware that he is so.

I intend to do my best to prove that these allegations have some truth in them. I have said he is misled—and it will naturally be expected that I show how. Well! in this way. He comes to our university, when he has reached a certain stage of education, prepared to spend a certain amount of money and four years of his life, and in return supposes that at the end of that time he will be sent forth into the world

with a licence to practise, and be furnished with all the training and lore that will enable him to practise all the branches of his profession — Medicine, Surgery, Jurisprudence, and Midwifery.

At the given time he is indeed launched forth with his diploma; but is he furnished otherwise as he should be? Very far indeed from it! A little ordinary medicine he indeed knows, but there are hundreds of diseases in medicine of which the Aberdeen student has never heard, and never can hear so long as things remain as they are.

Startling as this may seem it is no overstatement. There are, for instance, such things as diseases of the ears among those whom he will have as his patients; and they are of everyday occurrence, often dangerous or fatal, yet often curable with ease, and the very simplest of them are as unknown in our school as if they had no existence at all. For example, we are at the present moment surrounded by cases of Scarlet Fever scattered through the city, so that perhaps every fiftieth case seen by the doctor is a case of this disease. ten such cases, at least one is, during the disease, attacked with pain and throbbing in the ears. But does anyone who has just graduated in our university know that this is an attack of inflammation in the middle ear likely to end in perforation of the drum, and chronic discharge of matter from the outer ear, lasting for years and years, often incurable when once established, frequently causing abscess of the brain and death, yet curable in almost every case if treated at an early period, by puncturing the drum and inflating the tympanum through the Eustachian tube. Our practises and out-patient rooms swarm with such running ears, the consequences of Measles and Scarlet Fever, and almost every one of them might by suitable timely treatment have been prevented. Yet the doctor is not to be blamed. He has never been taught this by those who profess to instruct him in his business in return for his time and money. I am not at present concerned to ask if this is fair to the public; but I do ask, is it fair to our students?

There are such things as forms of insanity, and dangerous

they are, and important it is for the intending medical man to know about them. But how can an Aberdeen student know Insanity? There is no provision for teaching that branch; and the vast majority of our men get their diplomas without having ever seen a case.

There are diseases of the throat and nose and windpipe, common enough, as everyone may know, that cannot be discovered or receive suitable treatment save by the laryngoscope and rhinoscope, and that yet can by their means have their full danger known and be successfully treated. But what provision is there for our students becoming acquainted with such diseases and appliances? There is none. The very attempts made by his clinical teachers to fill up this want, and show the student a little in this direction at the public institutions where he is trained, serve only to show how hopeless it is to complete his education in that respect without a special course of instruction being provided at our medical school.

Surgery again is as well taught in Aberdeen as in any school I know. And yet, so far as the Aberdeen student goes, the human race ought to have been unprovided with eyes at all. Eve diseases occur often, occur daily, and are quite as important as fevers, injuries, or any other malady. But the average graduate of our university is unable to diagnose or treat the simplest of them, and is not even expected to be able to do so; while of the more difficult he has even less idea than he has of the North Pole. Take glaucoma, a gradual loss of sight, often attended with little else than a slowly increasing blindness to draw attention to its nature—a disease getting worse step by step, and every step irretrievable-a disease constantly overlooked until too late; and, yet, to be readily recognised by the ophthalmoscope, and almost always to be arrested by a simple operation. How many hundreds of eyes are being lost or impaired by the want of this knowledge, and, vet, what adequate provision is there here for seeing that Ophthalmology is studied by the men whom our university proudly sends out, licensed to teach, read, and practise medicine hic et ubique terrarum? Such provision does not exist. A single unrecognised class, taught from love of science, under every neglect and discouragement from the university, is attended by such students as may choose, and they are not one-half of those who graduate in our school. Are our Aberdeen students properly trained in glaucoma, purulent ophthalmia, and sympathetic ophthalmia, diseases of an importance second to none? Hundreds of blind, who have to thank our present system of medical education for their blindness, could, if they knew, shame those who have the direction of it, by their tales of the misery they have inflicted on them.

Legal Medicine is in a similar state. Medical Jurisprudence is taught; but Sanitation and the laws of Hygiène are never once mentioned to the student during his curriculum.

Pathology, instead of occupying one of the proudest positions in the university, is allowed to be taught by an extramural teacher to such as choose to go to him, without any encouragement, and under every disadvantage; and were he to stop teaching it to-morrow, the university would scarcely move its little finger, or use its proper influence, or pay one farthing of its funds to supply the irreparable want.

It would be easy to extend the list by dilating on other so-called specialities, but in reality necessary branches of training, which in many other schools the authorities are sensible enough to recognise as of equal importance with those which we teach here, and which are there assigned their proper position in the curriculum and at examinations, but which here are unknown. Our student graduates with a knowledge of only such branches of his profession as are absolutely necessary to save him from the charge of being shamefully ignorant, and the fault lies, not with him, but with those who have the direction of medical education. No student ever leaves our school as a fully equipped medical man; he has to go elsewhere and spend further time and money, should he wish to become so.

I asserted further that the Aberdeen student is overworked, and again I owe a reply to the question, How?

Well, he has to study two sorts of subjects, First, Preliminary Sciences, which enable him to understand medicine, and, Second, Practical Subjects, that is, the divisions of ordinary practice.

preliminary sciences are such Anatomy, as Natural History, Botany, Chemistry, and Physiology. form a foundation for a complete medical equipment, and as such, are doubtless of great value; but they are not themselves the chief knowledge required by the practitioner. the contrary, every doctor, whoever he be, forgets much of these sciences, indeed it is not possible for him to retain them, however hard he may try to do so. He preserves only their main facts, and the conscious completeness which once having mastered them confers on him, but nothing more. questions requiring a knowledge of their minutiæ present themselves to him, he goes to their literature and there seeks, as occasion demands, what of them he requires to know. I am sure there is not a single practitioner of a few years' standing who could not in his inmost heart conform what I say.

The practical subjects, on the contrary, such as Materia Medica, Surgery, Practice of Medicine, Pathology, Midwifery, and Jurisprudence, constitute the chief knowledge required, and the knowledge of them must be of a very different kind from that of the preliminary subjects. They must be at the finger ends of the doctor, must by training have become part and parcel of him, and be so familiar to him as instinctively to be used with accuracy. If a patient complains of a skin eruption, a diseased retina, or of any other ailment, it is not possible to empty out the library book shelves on the spot, and then and there search for his malady; the knowledge must be already got, the disease must already be familiar from having been seen, examined, and treated before, or from having been studied in writings and descriptions, so that it has become an old friend.

I appeal to the testimony of every practitioner to say whether it is not correct that a knowledge of how to use either the laryngoscope, or the stethoscope, or the ear speculum, or the ophthalmoscope is not of more value to him than nineteen-twentieths of the sciences of Botany, Anatomy, Chemistry, Physiology, or Natural History. A young

doctor, knowing little save the preliminary subjects, is a man of comparatively no value compared with the experienced medical man who has forgotten most of them, but has learnt, by constant use, the thorough application of the practical subjects, and of the means and appliances used in them. soon as a student obtains his diploma and enters practise, he begins to find a burning want of more knowledge of disease, and how to treat it. He finds that the subjects he chiefly studied at the university, and on excelling in which he perhaps prided himself, are of far less value than he had been led to believe, while there is a large mass of material of which he had but a faint conception, that he has to acquire painfully and slowly, and which he perhaps can never now hope completely to acquire. Most keenly of all he feels the want of a proper training in the application of certain instruments of diagnosis and treatment, the ophthalmoscope, laryngoscope, &c.; but they cannot be learnt, or can be learnt by few, save in a regular class, and as part of a curriculum of medical study. Bitterly is the want felt, and felt to the very end. Such a man remains for ever behind his day and generation.

Even those who have started in life, well provided in these respects, speedily come to see that much indeed of our present curriculum training was unnecessary, and that much of what was learnt might have been advantageously replaced by more attention having been devoted to the practical subjects. As men advance in years, experience, and completeness, they no longer care to maintain their student knowledge of the preliminary subjects, but strive more and more to obtain a mastery of disease, and of the methods of studying it; and comparatively neglect, with impunity and even advantage, the things which, ere they could judge for themselves, they had been led to regard as the all in all of medicine.

If these things are so, gentlemen, surely we ought to expect that great care would be taken to give our students an opportunity of acquiring their practical subjects; to provide them with the means of being instructed in every class of disease; to let them learn the use of instruments and appliances which everyone employs who does not deserve to be

stamped with the epithet *incompetent*; or at least, if our means will not let us teach everything, to maintain a due balance between the preliminary and the practical subjects, so that the latter may not be swamped or driven out of sight by the former.

Instead of this, what have we? We have careful provision made for a student spending, or rather wasting, two years in the study of such subjects as Chemistry and Botany, and three years in acquiring Anatomy, while the most valuable part of his curriculum, the study of medicine, is compressed, with very few exceptions, into one year; indeed, it is not going beyond the mark to say, into five months.

An Aberdeen student, who is supposed to need two years to learn Chemistry and Botany, and three years to learn Anatomy, is actually believed to be capable of learning the Practice of Medicine, Midwifery, and Jurisprudence in five months. Only those who know the monstrous disproportion between these subjects can form an idea of how ludicrously

unfair and inadequate such a distribution of time is.

Not only so, but the universities are carefully arranged so that no one shall be interested in remedying this state of matters. The examinations are so fixed that a student cannot rid himself, however great his knowledge, of these bloated preliminary subjects, until he has perspired his given number of years in their study. Numerous and eminent professors are at their post to insert every possible detail of them, whether useful or valueless, into the student, and to see, at the pass-examinations, that he has committed every one of them to memory; while the great needs of his profession, the tools by which he will have to make his bread, and hold his own in the competition with his compeers, are entrusted to an insufficient number of professors, who do their best to face the difficulties of teaching subjects overwhelmingly large in an impossible space of time. Every new and even fanciful detail of the preliminary subjects is carefully and laboriously instilled into the students, while other subjects, ten times their value, are in our own school not taught at all, or are taken up, under every possible discouragement, by some man unconnected with the university, and who, instead of being encouraged and assisted, is met with the coldest indifference and neglect by the authorities of the very institution he is endeavouring to benefit. I say that in our Senatuses and University Courts there is a systematic neglect of the most glaring wants of our medical schools; that our students are encouraged and compelled to learn less useful in preference to more useful subjects; and that there is not, in all these bodies combined, sufficient vitality or energy to make the proper attempts towards providing such a training as altered times and circumstances require, and as they are, in justice to the students, bound to provide.

I have tried in honesty to paint our university, and I believe the picture to be a true one.

No doubt the present arrangements were well enough suited to a time long since past, when practical medicine was a subject trifling in extent as compared with what it now is; and the present system may conscientiously be defended by those who belong to a past era, and who are unaware of a new one having taken its place. But those who know the necessities of a medical man's training in the present day will, I believe, be found to admit that such things cannot long be borne, and are growing daily more intolerable with the increasing requirements of the diagnosis and treatment of disease. How erroneous the present scheme of our school is, under which students are advised by their professors not to attend hospital until the completion of half their curriculum, only those fully know who, with a completed curriculum, look back on valuable years misspent in the exclusive study of subjects not themselves of the highest importance, but merely auxiliary to those that ought to have been thoroughly learnt, but were learnt, alas, only as smatterings.

I have aimed my remarks chiefly at our own University, because of all the Scotch Medical schools that have any vitality, it is the worst sinner in these respects. But the remarks I have ventured to make apply also to the other medical universities in Scotland. All are hampered by a legislation that has left, in senatuses, university councils, and university

courts, a governing power inadequate to the requirements of the day; and put the direction of medical training into the hands of men who, for the most part, have not the knowledge to institute the necessary changes as changing circumstances call for them, and who have in every case proved incompetent

properly to wield their power.

It is becoming intolerable that our universities, and those who direct them, should be allowed to stagnate as they are doing, and until, in Aberdeen at least, we restore a proper balance between the preliminary and the practical subjects, our school of medicine will turn out men on an average markedly incompetent and incomplete compared with what they ought to be, and that solely from want of proper direction; men with four years of their life spent injudiciously; men who, when they come to practise, have their eyes opened to see how misspent their time has been, and who must spend time and money elsewhere to compensate the deficiencies of our school, or repent, in the leisure of a lifetime, a fault that was not their own.

## PART II.

Fault finding without suggestion of a remedy is simply grumbling, and grumbling is weak and useless. I have therefore not felt myself entitled to decline completing this paper, and preparing it for publication by adding to it as a second chapter what seems to me to be necessary and wise in the

way of reform.

Although it might seem at first sight a formidable task to try to render the Scotch University Schools of medicine complete, there is yet nothing really impracticable or unpractical in it. The chief difficulty doubtless is to open the eyes of the authorities of the universities themselves to the absolute necessity of a change. One of the inevitable consequences of division of labour is the narrowing influence it exercises in certain respects on the judgment of those who are working under its sway. In the Medical Faculties of the Universities we have a number of talented and eminent men working as specialists; or, at least, the majority of them are

so. But though professors be talented and eminent, they are still but men, and as such they are prone to fall into the fault of specialists, of imagining each that his own subject is the most, or one of the most, important in the whole curriculum. Hence they, in their zeal, are apt to forget that their business is simply to teach the student his profession as the proper return for his time and money spent; and not to compel him to acquire the minutest and most trivial details of each science that aid him to understand it. The want of a correct judgment on this point is the source whence proceeds the useless and annoying minuteness of knowledge often insisted on at our examinations in the preliminary sciences, a minuteness quite out of place, and, as I have shown, most prejudicial to our students. Our Medical Faculties, so largely composed of specialists, are not bodies whence broad and correct views regarding the comparative value of each subject and the proper relative time to be spent in acquiring it can emanate. The individuals composing them are sure as a rule to strive, and as a fact do strive, each to magnify his own subject at the expense of the other subjects with which he is less acquainted. To the opinion of the profession at large, an opinion that at present never reaches the Senatus Academici, must eventually be relegated such questions. The profession at large alone can give a correct verdict, as it alone feels its wants and weaknesses, and it alone can be said to possess the practical men who, from hourly experience, know what it really requires. Were those questions left to the decision of the professors, the result would merely be commensurate with the average enlightenment of the majority, and I have already stated that the division of labour in science does not tend in the individual specialist to broad and enlightened views of general subjects.

We must either come to some arrangement that will permit the profession at large to have much more voice than at present in the management of our medical schools, or have recourse to concentration of their administration in the hands of a responsible minister of education, who shall carry out necessary reforms with a firm hand. No legislation for the

universities can be complete and final that does not provide for one or other of these alternatives.

In the meantime there is nothing to prevent the training in our own school from being made more complete. the union of King's and Marischal Colleges, when the spur of rivalry was so strong as to ensure more effort in this direction, the Universities managed to create and sustain lectureships on a sound and workable footing upon such subjects as were called for beyond those taught by the then professors. why should it not be so now? The university is richer, the number of students is greater. Why is it not done? Simply because the spur of rivalry is taken away, the tendency is to leave things alone, to rest contented with insufficient efforts at reform, or to trust with a blind faith in the superior wisdom of a University Commission or some such panacea. funds are wasted in providing needless class-grants, museums whose expenditure exceeds their value to the school, and sometimes a uselessly large staff of teachers in some particular Were this money applied towards providing that our students should be taught their business as completely as they ought to be, instead of being devoted to overdoing the preliminary sciences, Aberdeen would soon offer to every medical student in it such a training that he might dispense with studying at other schools after he had finished with ours, for he could be sent out provided with everything that the best school in the world could afford him.

There is no absolute need of grants from government, or legacies from private individuals to endow new professorships. Heaven helps those who help themselves. There are at this moment in Aberdeen, among the members of the medical profession, men who could with credit fill the Lectureships on all the subjects required, who could easily, did the university choose, without fresh legislation, be formed into a complete staff of teachers and examiners on their own subjects, and who would redeem the Aberdeen school from the discredit of being apathetic to those needs of their students that are so palpable to everyone else.

Besides the subjects already taught in the university,

there should be, and soon must be, regular courses and special examinations on Ophthalmology, Otology, Pathology, Mental Diseases, Throat and Nose Diseases, Dental Surgery, Operative and Minor Surgery, Dermatology, and Hygiène. is a long list, but less will not suffice, and almost of itself the question follows-how is room to be found for them in the curriculum? By lengthening the curriculum, and making the student study five years instead of four? No. All of these subjects, save Pathology, might be taught as courses of three months, two months, or even six weeks' duration, and were the preliminary sciences kept in their proper place there would be ample room. Not only so, but were the preliminary sciences kept in their proper place, there would be little or no addition to the present cost of medical education, and the student, for the same money, would receive much greater value.

Another difficulty concerns the want of proper balance in the subjects of medical study, i.e., the prominence assigned to the less important over the more important. There is no doubt that, in reference to this, the most difficult question, and one that should be most clearly understood and carefully handled, is that of the degree examinations. For, so long as professors and teachers remain examiners of their own students, an over-zealous or injudicious professor has the power of compelling students to devote undue time and attention to the subject taught by him, and to spend an undue portion of their funds in taking out his class. A professor deprived of the power of examining his own students for degrees finds at once his proper level.

It seems to me to be wise that professors should be the examiners of their students, though a practical acquaintance with examining boards is apt rudely to shake this belief, for professorial whims are sometimes more examined upon than sound general knowledge, and one feels tempted to wish that a central board of examiners for degrees, independent of any particular school, should be substituted for the present system. In truth, however, such a scheme would not work well in Scotland. Such examiners, we know, from experience of the

London examinations, have their whims and fancies as well as professors; and besides, such a central board would of necessity, to a considerable extent at least, be recruited from the professors of the various universities and medical Schools of Scotland. Moreover, individuality of teaching, though a contemptible thing in the hands of mediocrity, has really immense advantages to recommend it in the hands of really good men, and there can be little doubt that a central examining board would be inimical to individuality of teaching, and tend to reduce professors more to the level of grinders. Hence it seems to be the lesser of two evils for Scotland to retain its professors as its examiners. But so surely as any professor cultivates his own hobbies at the examination tables, and forgets that his business is to see that the student is fit to practise as a doctor, not that he is posted in professorial peculiarities, so surely is the way being paved for a general demand from the body of the profession for a central examining board, although, as already said, it may reasonably be doubted whether that would be a perfect remedy. Far too often are questions expected to be answered that bear their own condemnation on their face when brought to the test of the simple query-Is this such a question as ought to be asked of one whose purpose it is to become a useful and practical medical man?

The present system of appointing assessors to the examining professors is almost a farce. Such an assessor can do little or no real good. He is in Aberdeen appointed for only three years, and enters on his work without a good idea of what an average student is, or what an average student should know, and by the time he has found his bearings his term of office is up. He is attached to a professor or professors who do not sufficiently recognise the fact that he is legally equal to them in every way in all questions concerning the examinations, many of whom do not even ask his opinion on the paper to be set for the written examination, although it is plainly his duty to set half of it, to object to any questions he deems unfair in the professor's half, and to take his equal share in all the duties and responsibilities of examination. The assessor is

almost invariably, if not invariably, a man inferior in erudition and position to the professor, and as such cannot hold his own and occupy fully the responsible position he holds. He sinks into an assistant examiner to the professor, and all he can do is to prevent anything manifestly unfair were such a thing to be attempted. He never has, and never can have, much real weight in determining the tone and severity of the examinations. In saying this I do not mean to attach blame to the professors or accuse them of wilfully slighting the assessors. I simply wish to say that I believe the present style of rapidly changing underpaid assessors is a mistake, that it is a delusion to imagine they can do any real good, and that they, however desirous, cannot be worth the money they cost. Nothing short of high pay, such as would secure assessors of equal eminence with the professors, and their appointment for life or a long period of years, would ensure the assessors being a real and adequate power as part of the examining board. I apprehend the best safeguard against over-examination lies in the selection to fill professorial chairs of only such men as possess the well-balanced mind, the moderation, and sound judgment that despise hobbies; who will avoid examining in such a way that a good student from any other good school of medicine would be unable to reply to the questions; and who are above the smallness of increasing the attendance on their own class, or giving improper importance to their own subject, by immoderately strict examination. It is said that, in the University of Edinburgh, a meeting of professors and examiners is regularly held, where all the questions proposed to be given at the ensuing written examination are submitted to the whole examining board, and where any member is free to take exception to anything he considers unjust. No such arrangement exists in Aberdeen, but the plan seems to be open to no objection, and to have this strong recommendation that by it over-examination in any one subject would be rendered much more difficult, and, so far as the written examination goes, impossible, without the connivance of the whole of the examiners, a thing scarcely to be imagined.

In conclusion, I would suggest such a scheme of a curriculum as seems to me suitable to the medical art as it exists in our own day.

Theoretically, there is no good reason why a student should not be allowed to pass his examination in any subject of his curriculum at any period of it he may choose, provided his knowledge is sufficient. But practically it is convenient to retain the present system of regulated examinations, and merely to remove its present injustices.

It is outrageously unfair that two separate examinations in Anatomy should be longer tolerated in Aberdeen and Glasgow. They have not worked well in Aberdeen; they are felt to be an injustice; they are quite unnecessary; and they serve only to confer on Anatomy an unjustly prominent place in the curriculum.

The main feature of the suggestions I would offer towards an amended curriculum is to take a year away from its commencement and add it to its end. The first year of a student's life is not at present properly utilised, because he has not the near prospect of examinations before him, and feels that he can afford to take his work very easily indeed. Chemistry and Botany should be passed at the end of the first year of study, and Anatomy and Physiology at the end of the second year. This could easily be done; it is done every year by such students as have taken the degree of Master of Arts before they come to medicine. Natural History could readily be passed at the end of the first year: there is no actual or relative difficulty in the subject to prevent this being done. During the first year too, Dissections, a course of Anatomy, and attendance at Hospital, could all be easily taken without overloading the student with work, especially as he has both a summer and a winter session, as well as a three months' vacation at his disposal. Dental Diseases could also be studied with advantage in the first year.

During his second year the student should, besides a second course of Anatomy if he desire it, attend Physiology, dissect, attend short courses of Operative and Minor Surgery, Dermatology, Otology, and Laryngoscopy, and begin to do actual

dresser's work in the hospital wards; completing his second year by passing examinations in Anatomy, Physiology, Dermatology, Laryngoscopy, Otology, and Operative and Minor Surgery. He would thus have been introduced to practical work in its easiest forms and have got rid of his preliminary and theoretical subjects altogether.

The second half of his course would thus be free to be devoted to practical subjects, and a double course of Surgery and Medicine should be taken. Until a student attends a course of Practice of Medicine in his third year, he will not get the full benefit of attendance on the medical wards of the hospital where he has to learn the most valuable portion of his work. Attending these subjects and Pathology, he would be in a position to take the fullest advantage of Materia Medica and Therapeutics, and therefore his class should be taken in the third year. Theoretical Midwifery with Diseases of Women and Children, and Medical Jurisprudence, small but important subjects, might, with Mental Diseases, be profitably taken and perfectly appreciated in the third year, while hospital attendance should be particularly insisted on, and required to be certified as having been regular and thorough in both the last years of a student's training. The dispensary work might thus be rendered of more value and more easy to him. At the end of his third year, examinations should be passed in Materia Medica with Therapeutics, Midwifery with Diseases of Women and Children, Medical Jurisprudence, Pathology, and Mental Diseases.

The grand year of a student's life, his final year, would under this scheme find him free to devote himself to such work as he will have to face as a practitioner, to Medicine and Surgery, theoretical and clinical, to Ophthalmology and Hygiène, and to profit by Hospital and Dispensary work. His practical knowledge of Midwifery would fall to be completed during this year, and be proved by the usual certificate when he appears for his final examinations. These would consist of examinations on Medicine and Surgery, theoretical and clinical, on Hygiène and Ophthalmology.

Were such a course gone through here, an Aberdeen student would have no reason to be ashamed of his school, for a more complete training could no where be obtained.

Gentlemen, if it be true, as I believe, that the chief aim and end of a medical school is to fit a student for entering life as a completely equipped medical practitioner, the best wish I can express for the students and school of medicine of Aberdeen is that some such radical change as I have ventured to advocate may soon be brought to pass.

## RESUME OF PROPOSED CURRICULUM.

First Year.

Botany. Chemistry. Nat. History.

Anatomy. Dentistry. Hospital.

Dissection.

Pass in Botany, Chemistry, Nat. History, and Dentistry.

Second Year.

Anatomy. Physiology. Dermatology. Dissection. Laryngoscopy. Otology.

Hospital Dressership. Operative and Minor Surgery.

Pass in Anatomy, Physiology, Dermatology, Laryngoscopy, Otology, and Operative and Minor Surgery.

Third Year.

Materia Medica with Therapeutics.

Midwifery with Gynækology and Pædiatrics.

Medical Jurisprudence. Pathology.
Surgery. Medicine.
Mental Diseases. Hospital.

Pass in Mat. Medica, Midwifery, Med. Jurisprudence, Pathology, and Mental Diseases.

Fourth Class.

Medicine. Surgery. Hygiène.

Clinical Medicine. Clinical Surgery. Ophthalmology. Hospital. Pract. Midwifery. Dispensary.

Pass in Medicine, Clinical Medicine, Surgery, Clinical Surgery, Hygiène, and Ophthalmology, and show Certificates of Practical work in Dispensary and Hospital, and attendance on six cases of Midwifery.