INTRODUCTORY ADDRESS

ON

THE PURSUIT OF MEDICAL STUDIES
AND PRACTICE.*Delivered at the opening of the Session 1880-81 of the Liverpool
Royal Infirmary School of Medicine.*By A. T. H. WATERS, M.D., F.R.C.P.,
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It has been my fortune to have been connected with this school for five-and-twenty years, and yet this is only the second time that it has devolved on me to deliver an introductory address. The first occasion was in 1857, twenty-three years ago. It may seem strange that, with a staff of only thirteen lecturers, whose duty it is to deliver the address in rotation, so long an interval should have elapsed; but, in truth, during these twenty-three years many changes have occurred in our staff, and there have been many newcomers, whose services have been taxed for the annual addresses. These new appointments have been caused in some instances by death, but in large measure by resignations—resignations of men some of whom are still amongst us, still honorary members of our staff.

Having, therefore, been so long attached to the school, having watched its fortunes, having seen several generations of students pass through it, and having studied to the best of my ability their wants, I may perhaps be in a position to judge of the capabilities of the institution, and of the requirements of those who resort to it; and, in the few remarks which I feel it my duty to make, I wish that the experience I have had in connection with the school, in the practice of my profession, and as a teacher of medicine, may be rendered of service to those whom it is my privilege to address. And, as there may be some here who may be unaware of the scope of this school, let me observe that the student will find in it all the requirements of his medical education. The professional subjects—those which it is the function of a medical faculty to teach—are all taught here. The lectures and the teaching of the school are recognised by the various examining boards, and a student's education can be begun and completed in it. There is, however, one disadvantage under which the Liverpool student of medicine still labours—a disadvantage which, I am happy to say, is likely to be soon removed. I refer to the fact that those who are candidates for the degrees in medicine of the London University cannot obtain in Liverpool that instruction in one department of science—viz., experimental physics—which is necessary for them. There is no course of lectures given here on that subject such as is required by the university for its graduates; and thus our students, desirous of the distinctions of the university, are obliged to resort to some other educational centre for their instruction. This want, however, in common with other wants of a similar character, is likely to be soon supplied by the establishment in Liverpool of a College for Higher Education, to be called University College; and I cannot refrain from taking this opportunity of congratulating the city on the approaching realisation of a long-desired object. The establishment of the college will place Liverpool in its proper rank with Manchester, Leeds, Birmingham, Newcastle, and other towns, as an educational centre; and will, I am sure, not only redound to the credit of those who have contributed to found it, but be of the greatest possible benefit to the community at large.

I shall not attempt to guide you as to the manner in which you should study the various subjects which will be brought before you; I leave that for your individual lecturers. You will find these subjects numerous; and, when you come to consider the details of each subject, you will, perhaps, be disposed to think that it is beyond the power of any one mind to grasp them all; and you may feel disheartened at the difficulties of your task. But be not discouraged. The feeling is one which others have experienced; the difficulties are the same which others have encountered—the same which others have overcome; and you will overcome them. You will grapple with them as they present themselves. You will look forward to the goal which is the object of your aim and of your ambition; and you will gradually see the difficulties disappear, and the goal ultimately reached. It is quite true that, in the present day, there is a great multiplicity of detail in your various studies; that the known facts of every science are large, even as compared with what was the case five-and-twenty years ago; and that

the examinations are of a more searching and stringent character. But, on the other hand, there are now greater facilities for acquiring knowledge; many subjects are more accurately known, and therefore more easily taught and understood; and I believe that to the industrious student of the present day, as to the industrious student of the past, no difficulty exists which energetic and persevering work will not overcome.

The life of the medical practitioner is beset not only with difficulties, but with dangers—dangers as real as those which meet the soldier on the field of battle. You may be called upon to minister to the sufferings of men struck down by some virulently contagious disease. You may have to face a danger of this kind unaided and alone; but you must never forget the obligations of your calling. You must never allow any personal feelings—any feelings of personal safety—to interfere with the strict performance of your duty. Your profession is essentially a catholic profession, and in the true catholic spirit must you follow it. No distinction of race, or clime, or people, or condition, must be allowed to influence your work. Wherever disease exists, there is the field of your labour.

Some of you may, perhaps, devote your lives to that department of medicine which relates to the maintenance of the public health and the prevention of disease, in contradistinction to its treatment and cure. No more important subject could engage your attention; no more useful field could you find for the exercise of your talents. The great prominence which is now being given to matters relating to sanitary science, and the appointment of medical officers of health throughout the country, are amongst the most promising features of the present day, and the most marked signs of advancing civilisation. Much, indeed, remains to be accomplished. Sanitary science is still in its infancy. Few are aware, except those who have given special attention to the subject, of the amount of suffering and the great mortality which are produced by strictly preventable diseases. It cannot be doubted that, in the future, preventive medicine—the science of public hygiene—will take a prominent place; and we may, perhaps, look forward to the time when the wisdom of our legislators shall recognise the importance of placing the whole matter under the direction and supervision of a special Minister of State.

Although I cannot dwell on the various subjects of your curriculum, I wish to say a few words on some of them. Amongst the most important of these, anatomy stands out prominently. It may be safely said that no man can become a sound or successful physician or surgeon without a knowledge of this science. It lies at the root of all your studies, and you will find in this school the amplest means and opportunities for acquiring a practical knowledge of it. The science of anatomy, in the ordinary sense of the term, may be said to be perfect. It is true, that, with regard to minute investigation, much may remain to be discovered; but, in reference to ordinary anatomy, our knowledge is complete. You will find the study of it, not only essential to you in order that you may pass your examinations, not only in reference to the study of disease and accidents, but also of the highest value as a training for the mind, and of the greatest importance to you in any original inquiries in which, as physicians or surgeons, you may hereafter engage. Physiology is another subject of special interest and importance to you. Unlike anatomy, it is an imperfect science. Still, much is known of the functions of the animal economy; and every year is rendering our knowledge more complete and precise. The study of physiology possesses a fascination which few others possess. It is daily becoming more generally taught in our schools; and the knowledge of it is, therefore, becoming more diffused. It is looked upon now as almost a necessary part of the education of both sexes. I consider this introduction of the study of physiology into our schools as of the highest importance. As a training for the mind, it is of great value; but, as inculcating a knowledge of facts which have the most direct bearing on the well-being of society, it cannot be too highly esteemed. To you, as practitioners of medicine, it is essential; for, if you would wish to estimate the amount of derangement which disease produces, you must know how far that derangement is a departure from the normal state. I am sure you will find in this school, and in the laboratory connected with it, every facility and encouragement for a careful study of the subject. To the labours of the physiologist, medicine and the world in general are greatly indebted, and it should be to you a source of satisfaction and encouragement that our own countrymen are amongst those who have contributed most largely to physiological science. It is to the untiring labour, the acute observation, and the immortal genius of Harvey that we owe our knowledge of the circulation of the blood—the greatest discovery ever made in connection with medicine and surgery; perhaps, indeed, the discovery which, of all others, has had the greatest influence on the well-being of the human race. It is to the researches and investigations of Bell and Marshall Hall that we are indebted for those discoveries on the nervous

system which have contributed so much to aid us in our diagnosis and treatment of disease; whilst some of the most profound generalisations, in other departments of physiology, are associated with the name of John Hunter—who has left behind him, in the Museum of the Royal College of Surgeons, one of the grandest monuments ever raised by a great worker. One other subject I must refer to, and that is chemistry. A knowledge of this science will aid you greatly in your study of physiology. It will help you to understand many of the phenomena of organic life, and will often guide you in the treatment of disease. But, gentlemen, I must pass on; and, if I omit other special subjects of your curriculum, it is not that I consider them unimportant, but that time fails me.

Whilst, however, I must not dwell any longer on the separate subjects of your course, there is one other matter to which I wish briefly to call your attention. The great object for which you come here is to learn how to recognise and treat disease—to learn how to be of practical use in the alleviation of human suffering. The public estimate our services, and will honour and reward us, in proportion as we are able to treat successfully their ailments. They do not stop to inquire how far we are skilled anatomists or able physiologists—how far we are good chemists or botanists—but how far we can, by the application of remedial measures, cure their diseases; and, therefore, although the sciences connected with medicine are of the highest importance, a knowledge of them alone will not make a physician or surgeon. It is, gentlemen, in the wards of your hospitals, at the bedside of the patients, that you can alone learn to recognise and treat disease; and there is too great a tendency, on the part of students, to neglect the clinical part of their work, and especially in the early days of their attendance at their hospitals. Although I do not advise you to allow anything materially to interfere with the study of those subjects which you must master in order to pass your primary examinations, I think that frequent visits to the wards, from the very commencement of your hospital practice, by familiarising you with the aspect of disease and the routine of practice, are of the highest importance, and will enable you, when you take the office of clinical clerk or dresser, to make more rapid progress in your study of symptoms than would otherwise be the case. I wish, gentlemen, I could tell you that, when you have gained a fair and adequate knowledge of the collateral branches of medicine, and whenever you have seen the principles which may be acquired from a study of them, applied in numerous cases by your teachers, you will find the practice of your profession easy. It is far otherwise. It calls for the exercise of the highest skill, and most careful discrimination. The science and art which you will have practically to apply are not only different from all others, but more difficult than any; and I should like to tell you, as briefly as I can, in what consists, in my opinion, this difficulty, as well as this difference. In the comparison which is often made between medicine and other sciences and arts, the peculiarities which characterise medicine are not sufficiently regarded. Those who are unacquainted with the difficulties which beset the progress of medicine are apt, I think, to imagine that the advances made in it are not commensurate with those which are made in other sciences. Now, let us for a moment consider this point; for I am one of those who believe that, in proportion to the difficulties which surround the investigation of medicine, the discoveries in medical science and the advances in medical art have been as great as those which have marked the history of any other science or art. I should wish to be in no wise misunderstood. I do not for a moment underestimate the difficulties which attend the investigations of the physical philosopher; and I admit most willingly, for instance, that the precision which characterises the labours of the chemist, and the exactitude with which the predictions of the astronomer are fulfilled, demonstrate the high degree of perfection to which their respective sciences have been brought. But the subjects to which medicine relates immeasurably transcend those of the physical philosopher. The investigation of the phenomena of life is surrounded by difficulties such as the physicist never meets with. The physician and the physicist can, up to a certain point, travel along the same road, and derive from their investigations the same definite conclusions; but, when a point is reached which would give to the chemist and the astronomer a final result, then the physician is only approaching his greatest difficulty. The unchangeable nature of inorganic matter gives rise to one unvarying result whenever inorganic matter is acted upon by the same cause. But organic matter is ever varying, ever unstable; and in that highly complex body which is the subject of the physician's operations, there are so many circumstances beyond the mere physical, so many varieties of individual constitution, so many peculiarities, so many influences of a mental or a moral nature, that it becomes a problem—very different to that which the chemist or the astronomer is called upon to decide—when the physician has to consider the effects which the same cause will produce on different persons, or on the same person at different times.

Were the science of life as perfect as that of chemistry—were we even thoroughly acquainted with the laws which regulate diseased action—there would still remain great difficulties in the treatment of disease. We should still have to study the peculiarities of each individual, and carefully select the remedies appropriate to their case. And herein lies the great difficulty of therapeutics; but herein also lies its point of greatest interest. It is this which gives its great peculiarity to medicine—the ever varying condition of those who are subjects of the physician's care; the manifold phases which the same disease presents in different persons; and, lastly, but by no means least, the different effects which the same remedy may produce in different individuals, and in the same individual, at different times. And, in judging of the progress of medicine, these are circumstances which should always be taken into consideration; but they are circumstances such as can only be properly appreciated by those who are engaged in the difficult work of practical medicine.

You must not look to the mere pecuniary recompense of your profession, nor even the receipt of honours or distinctions, as the reward of your labours and the satisfaction of your lives. You must rather look for these in the grateful thanks of those to whom you may have rendered service, and especially in the thought that you are engaged in a beneficent work, that you have been instrumental in alleviating human suffering, and have endeavoured to advance human knowledge. In this must be your highest happiness, in this your greatest reward. And if you feel that to be occupied in such a work, to devote your energies to such a pursuit, is to live a life worth living, then, gentlemen, I offer you my most sincere congratulations on making choice of a profession which I have always deemed it a happiness to practise and a privilege to teach. It deals with interests only secondary to those which come within the province of the divine, and relate to the higher destinies of man. It will lead you to the study of subjects amongst the most elevating and interesting which the human mind can contemplate—life in all its varied phases, disease in all its varied forms. It will bring you into the closest and most intimate relations with your fellow-men. It will afford you the possibility of making, by your labours and researches, some discovery which shall confer inestimable benefits on mankind; and in its mere routine daily work it is capable of giving you satisfaction as great as that which any other calling can afford. The practice of your profession will give you a varied experience of human nature and of human life; but, on the whole, you will see the better side of both the one and the other. You will see much of human weakness, much of its shortcomings, much that is wrong; but, on the other hand, you will see much that is good and noble; and at times you will witness a self-sacrifice and devotion which will win your highest admiration. You will be brought into relation with all classes of society. You will be summoned to the mansions of the rich, and you will be called to the homes of the poor. You will become the trusted friends of many; the depositaries of family secrets; the welcome visitors wherever sickness is present. You will be careful not to forfeit the confidence placed in you. Never forget the character of your calling, and never, by any act of your own, give occasion for the shafts of malice or uncharitableness to be hurled at you, or, through you, at your profession. Consider that with you rests the responsibility of keeping its fair name honoured and untarnished. In the presence of sickness, let every faculty of your mind be concentrated on the great business of your life.

You, gentlemen, are entering on the study of your profession at a time when great activity is displayed in every department of it, and when, by a rigid system of induction, men are endeavouring to arrive at a knowledge of the truth. Just as we can point to improvements during the past five-and-twenty years, so, I doubt not, will you be able to speak of like improvements five-and-twenty years hence. The introduction into practice of various instruments of precision, which has characterised the last quarter of a century, has added materially to the powers of the physician to recognise and treat disease; and we can look forward with confidence to additional development in this direction, as well as to future researches and investigations for further improvement and advance. In connection with these researches and investigations, I trust will be found the names of some of those whom I now address. During the past few years, two of the great prizes offered for competition in the profession, the Astley Cooper Prize and the College of Surgeons Triennial Prize, have been awarded to a former pupil of this school, for investigations in the nervous system; and I would express a hope that his example may be followed, and that we may see the names of other students of our school in the list of distinguished prizemen.

In considering the advance in medicine which we may confidently look for, we cannot but feel how impossible it is to say from what department of human knowledge aid may come. There is nothing which

is foreign to medicine. There is no science or art which may not be looked upon as its handmaid. The valuable assistance which has been derived from the stethoscope, the microscope, the laryngoscope, the ophthalmoscope, and the thermometer, warrants us in believing that further development of instruments of a like kind will form a characteristic of the future; whilst the facts with which we are already acquainted with reference to the germ-origin of certain diseases leads us to hope that some grand generalisations and brilliant practical results will accrue from further researches. The application of the so-called antiseptic system, or Listerism, to the treatment of wounds, will make the present epoch memorable in the history of surgery; and, if further investigations should demonstrate the existence of specific organisms in connection with certain fevers, they may lead to the adoption of a method of prevention and cure, which will prove of inestimable benefit to the human race.

Gentlemen, it will be for you to continue the researches which are now being carried on in these various directions. Those of you who practise in this great city will have ample opportunities for scientific investigation and clinical inquiry; and, therefore, on such will rest a graver responsibility. But some of the best original work ever done, has been done under circumstances apparently the most unfavourable; and, therefore, let no man imagine that, although located far from the busy centres of intellectual or practical life, he may not, whatever be his calling, and especially if it be medicine, contribute something to the stock of human knowledge—*non nobis solum nati sumus*. And I would have you feel that there is a true nobility in work; that it is work which ennobles character, which sanctifies life; and, gentlemen, I will now conclude with the expression of a fervent hope that, in the work which you have undertaken, you may find a perennial source of satisfaction, and of pleasure; that the labours of the life of each of you may be crowned with success; and that, when the close of that life shall come, you may have the satisfaction of feeling that you have honestly endeavoured to perform your duty; and that, if you have not been able to attain to the eminence of those distinguished men who have shed a lustre on our profession, you have, at all events, striven to imitate their example and to follow in their steps.

HALIFAX COMBINATION.—In the preface to his report for 1879, Dr. Britton attempts to defend himself against the criticisms of those who have suggested that his reports would be better if written less disjointedly, and if they contained more as to the district as a whole. We cannot think that Dr. Britton has been successful in this attempt; and the sentence in which he winds up his argument is so curiously antagonistic to the usually accepted principle on which reports of officers of health are framed, that we feel it necessary to quote it in full. Says Dr. Britton: "Reports, to be valuable, must be of local interest mainly, as showing the advances in sanitation to those who, from their local knowledge, can see the benefits to be derived from the improvements effected; and the more interesting, and, consequently, the more valuable, they are to the localities to which they relate, the less of interest are they to those living at a distance, and to the public generally." We do not profess to understand this singular doctrine; but, were other officers of health to be guided by the principles which seem to actuate Dr. Britton, the contributions to our general stock of knowledge with respect to the causation and spread of disease, which officers of health in all parts of the kingdom are now making through their published reports, would absolutely cease, and the usefulness of the sanitary medical service of the country would thus be, to an important degree, impaired. Dr. Britton, true to his convictions, gives but little information in his report as to the prevailing epidemics of the year, or as to their relations with each other. He reports, however, that the health of the people generally was "wonderfully good", and that in the summer there was an almost total absence of diarrhoea amongst children. Scarletina prevailed in many of the districts, and was very fatal at Brighouse and Rastrick, principally from sequelae, such as dropsy and abscess. Dr. Britton accounts for this partly by the damp and chilly weather, and partly by too early exposure to cold. As in former epidemics, the schools were the most fruitful source of infection. Lung diseases were unusually prevalent and very fatal, and there was a striking number of deaths from heart-disease, due, as Dr. Britton, thinks, to the hard times and consequent anxiety and worry. The percentage of uncertified deaths is extremely high in many of the districts. The subject of the water-supply has continued to receive Dr. Britton's attention, and sixty-eight analyses were made during the year. The death-rate of the entire district is not given, nor do the tabular statements in the report enable the number of deaths in the district from various causes to be readily stated.

THOUGHTS ON IGNORANCE AND QUACKERY.

Being an Address delivered at Westminster Hospital Medical School, at the opening of the Session of 1880-81.

By H. DONKIN, M.B.Oxon., F.R.C.P.Lond.,

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GENTLEMEN,—Having undertaken, by the wish of my colleagues, the honourable charge of speaking to you on this the opening day of our medical year, I shall make no defence of the time-honoured institution of introductory lectures. That I now attempt, however unworthily, to address you, must be proof enough that I deem these occasions not unfitting for reflection on some of the many relations of our loved and laborious profession—a profession whose proper practice is based on knowledge that spreads its countless roots over the infinite field of nature.

I speak to you as a medical student to medical students, in the widest sense of the term, limiting it not to the few years—even for their purpose all too few—of the pre-examination period, which abler hands than mine have often treated. Our time for learning ends not here; to be capable and honest practitioners of medicine—the ostensible aim, I apprehend, of all, though often forgotten by many—we must remain its students as long as life shall last.

And, out of the many topics which might be chosen on which to address the student-practitioner at the beginning of his real life's work, I have taken to-day as one, though commonplace, yet not quite threadbare, the subject of the duty which he who would be a worthy professor of the art of medicine owes to society, not quite forgetting to consider a little the reciprocal attitude of society to the doctor; and, in reviewing our work from this point of view of duty, we may glance as we pass at some of the lures that turn us away therefrom, and some of the pitfalls into which we may unconsciously be cast.

It is, I think, the somewhat peculiar position of the practice of medicine, wherein so often duty and self-interest seem to clash, affording scope for the exercise of the highest as well as the lowest impulses, that justifies, as at least I hope, my choice of this subject. The man whose aim is the highest possible standard of excellence and honour in the knowledge and practice of medicine, is met, perhaps, with more serious lets and hindrances thereto than he of any other profession whatever. He, more than any, has to exercise, in the complexity of his relations, that fine taste, the heritage of the ages, which enables him to distinguish between the right and the wrong, and has constantly, while regarding his own necessary self-interest, to keep in view his bounden duty to his fellow-men. The doctor alone is paid for doing what all right-minded men would freely do for their fellows—all that is in their power. Part of the work of all of us is that of lessening human suffering; it is the doctor's proper work, and he is especially equipped for the task. Not only is he obviously skilled above all others to succour the body, but now, more than at any time, he may be able to minister even to the mind, at once a work more hopeful and a duty more binding in this day, when moral and natural science have met together, and physiology and psychology have kissed each other. Should we not all strive to do our share of such work as this? Do we not see an increasing number of those who do it, not greedy of reward, but because they must; because in the action itself they find their meed of pleasure? If we are all bound to shield our fellows, as far as may in us lie, from harm or death; to stay, for instance, a bleeding which might be fatal, or save a life from drowning, is not a doctor's obligation manifold, with his special skill, to do the like? And must we not regard a doctor, possessed of as deep and scientific a knowledge as possible of his profession, and intimately acquainted as he should be with human nature, as one pre-eminent bound to apply his pre-eminent power for the good of his fellows.

But we must look at this from another point of view, and one no less true. It is not quite spontaneously that men fill the responsible position of which I have spoken, nor is the desire of being the ministers of humanity the efficient cause of the making of medical men. The chief stimulus to the acquisition of the special knowledge that seems to add such a grave charge to its possessor, is not the love of its exercise, however strongly this may actuate many, but mainly its capability of being