

urge you to begin at once. There is, you are aware, at St. George's a society for the encouragement of drawing. I do not know whose idea it was to start this society, but I am quite sure that, whoever he was, he deserves a medal. A year ago the president of that society was Sir Prescott Hewett, and I will use this occasion to deplore the loss of that distinguished surgeon and no less excellent artist. The first person I ever spoke to at St. George's, the first person I ever heard lecture there, was Prescott Hewett, and many acts of kindness spread over many years will ever endear his memory to me. But the Graphic Society has another President, your senior physician, Dr. Dickinson, and I feel confident that under his auspices it will flourish exceedingly, and that all St. George's men will draw, whether for educational and professional purposes, or for their amusement in their leisure time. And this brings me to my last topic—a piece of advice which I give you, and you can give your patients. Every working man—and you are all working men—should have, besides his daily professional work, some amusement, occupation, hobby, call it what you will, to which he can turn for relief and distraction of thought. If you look at the lists of the scientific societies of London, you will see how largely they are filled by men who are busy by day in various callings, bankers, merchants, lawyers, and others, and who amuse and refresh themselves in leisure hours by such pursuits. But I see many as patients who have no resource of any kind to fall back upon. If illness or any other cause stops their daily routine of work, their minds are void of all occupation, and their life is one of utter boredom. Mere out of door amusement is not enough; it must be something to divert the mind, not merely to exercise the body. There are sciences of all kinds, from astronomy downwards; and many of these, as geology or zoology, are akin to anatomy, which you all have to study, and should be specially interesting to medical men. Whatever it is, have something, a *parergon*, as the Greeks called it, a bye-work, something besides and beyond your daily task, however beloved the latter may be.

Address

TO THE

STUDENTS OF UNIVERSITY COLLEGE,
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By VICTOR HORSLEY, F.R.S., F.R.C.S., B.S.,

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GENTLEMEN,—I had considerable hesitation in accepting the responsibility of addressing you to-day, from the feeling that it would be impossible for me to say anything to you which had not been vigorously and eloquently discussed by one or other of my predecessors. On inquiry, however, I found that, almost without exception, these addresses were devoted either to the consideration of medical politics or of recent changes in medical education, or, finally, to the panegyric of medicine as a splendid and noble profession. On this last point it is, I believe, quite unnecessary for me to further dilate. In the first place, you would not, I am sure, have selected it as your means of gaining a livelihood had you not been fully convinced of its merits; and, secondly, so striking an object lesson in disinterestedness is being daily afforded by the members of the profession already engaged in it that no words of mine are needed to emphasise its virtues more clearly. I do not myself know of any other profession the constant aim of whose members is to deprive themselves of their own sources of income for the good of the public, yet this Quixotic act is that which is exemplified by all those who are striving to forward sanitary work and to strike at the roots of disease. I may perhaps add that the public are not apparently conscious of this view of the case, or organised attacks on such individuals as Pasteur, Lister, and others and their followers would not be permitted, and the rewards which would be assigned to such benefactors of society would more ade-

quately represent their services. As, however, I have been saying, disinterestedness is a distinguishing mark of the profession, and both the public and the State seem equally determined that it shall continue to be so.

On the subject of medical politics I shall only speak in passing, as the sole point of interest at present is that the University of London, with a senate that represents directly nothing in particular, none of whose members, with but one exception, is in touch with the present teaching in the medical schools, and which has demonstrated its general incapacity by failing to reform itself, is about to witness the foundation by State interference of a rival university to satisfy the very obvious and reasonable requirements of London students, though at the cost and trouble necessarily involved in the existence of two universities. However, no extensive reform has ever been accomplished without considerable waste of time and energy, and it must be supposed that the inability of the present senate of the University to do more than carry out the wishes of Convocation many years after that body has proposed changes will gradually be converted into inefficiency as soon as the wholesome pressure from without shall have sufficiently metamorphosed the conditions prevailing among its members. Medical education, on the other hand, is, like the poor, always with us, and offers, like them, many suggestive problems. Being a branch of physical science, it is always changing, always requiring reform as general knowledge increases. I shall to day only incidentally touch upon one or two points connected with it, as I intend to devote the time allotted to me in considering a subject which concerns us all—namely, what the factors are which shall enable us to succeed in the practice of our profession, not merely to succeed in gaining a livelihood, but in properly fulfilling the other part of our duty, the furtherance of general medical science by the accumulation of fresh facts and the invention of fresh procedures for the relief of suffering humanity. The mere fact of our entering a profession at all means, as a rule, that we have to make our way, and the question must be very forcibly before all of you at this moment (as I well remember it was before me when I was one of the audience), What opening will there be? What can possibly turn up that should offer at the end of one's studentship the opportunity of earning a livelihood?

It is my desire to endeavour, as far as I can, to point out what openings there are, and, from my brief knowledge of the world, what precautions are advisable to secure success. Let us take what we may regard as the baser point of view first; I mean the commercial or business aspect of the question. And here let me say at once that, whereas in many respects our giving our work for money differs notably from ordinary transactions of commerce, it does seem a ridiculous travesty of sense that the justly honoured position of the Fellowship of the College of Physicians is hampered by the anomalous restriction that the holder of it may not recover by ordinary legal process what is most justly due to him and honestly earned. We all have in our hands the capability, and it is most widely exercised, of foregoing monetary obligations in cases where the circumstances of the patient make such an abnegation a pleasure; but there is no reason why the unscrupulous should be able to obtain by deliberate fraud without payment medical services of the utmost importance and value. Looking at our work, then, from the point of view of practice as a commercial process, it seems to me that the problem to be considered resolves itself into, What do our patients ask for from us? If a patient or his friends come to you, there are three things which he or they wish to know: 1. What is the matter with him? 2. How will it end? 3. How can he be relieved or cured? Now, the first of these is diagnosis; the second, prognosis; and the third, treatment. Of these, to my mind the second—viz., prognosis—is unquestionably the most important to the patient and his friends, and it is plain why this should be so. For in the large majority of cases, even if their nature be explained in the easiest possible and most popular manner, the public learn little or nothing from the statement that they have such and such a disease; and even if, as appears to be the developing fashion, they buy a dictionary of medicine, and read up the article which treats of their particular complaint, they are very little wiser. They come to you, therefore, for your special or expert knowledge of what the disease will do, how it will end, and what will be their future, and this is the most difficult part of our work as well

as the most important. Many think that an empirical knowledge of treatment is the royal road to success, and that it is enough to cultivate that. I am sure this is a profound mistake. If it were really so, then quackery would take the place of scientific medicine, since there are always a number of dupes ready to testify to the wonderful virtues of any given quack treatment, and blazon abroad at the same moment its powers and their own credulity. The fact is that although numbers of the public, especially of the highest and lowest classes, who for different reasons are the furthest removed from science, are easily deceived by such abominations, the vast majority are not. The mass of the people know that there is an impossible in everything, and they either ascribe a failure in treatment to its true cause—viz., the limitations of medical knowledge,—or they are usually ready to suggest that the unfavourable termination of the case was due to the interference of Providence, and that of course fully absolves the unsuccessful efforts of an immature science. It is not, therefore, treatment alone which is the essential of professional success, although of course one "good case," as it is called, brings another, and I shall later on revert to this part of our subject. That the decision as to the future of a case, or, in other words, the prognosis, is the most important factor for you to steadfastly hold in view is obvious in a hundred ways. Not only the possibility of assuring a patient that he will recover, but a limitless number of questions, all of the deepest gravity to himself and friends, or to his social, professional, or commercial interests, are equally involved in it, and upon it depends their solution. To look, therefore, at every case in its widest bearings, to judge correctly the course it will take, is the capability which the public will require of you, and in which they will always repose the utmost confidence. It will be my object presently to show that in attempting to equip yourselves for this purpose you will be fulfilling not only the dictates of a logical analysis of scientific education, but that you will, at the same time, accomplish much for the advancement of the highest interests of our profession.

I now come to the first point of detail which concerns you—namely, how you can best arrange your work while you have still the delightful privileges and endless opportunities of studentship. In the first place, while speaking of a studentship, I cannot refrain from congratulating those who are here for the first time on the choice they have made of University College as their school of thought. I do so for the simple reason that the University has always taken the lead among the London schools in advancing the knowledge of medical science. It has always provided the highest education earlier than other schools, and I believe this is true not only of the metropolis, but of the United Kingdom. An idea seems to exist that whereas the college may furnish all that is requisite, the hospital falls short. While, of course, most anxious for many reasons, of much more import than mere size, to see the hospital rebuilt, it seems to me that if the opportunities it offered have proved adequate for men like Lister, Liston, Erichsen, Jenner, Russell Reynolds, and others, none of us has much right to say it is too small a field for him upon which to found a sound knowledge of the clinical aspect of his work. But although the opportunities for work may be specially good here, I must fulfil my promise of attempting to show how we may make the best use of them. There are, it seems to me, always two phases of any education, whether technical or primary: the first is that wherein, consciously or unconsciously, we are training ourselves how to learn—that is, how to observe, and how to form accurate deductions; and the second is that wherein we are accumulating facts. To us both are of vital importance, and it is an extraordinary thing to my mind that there are persons—I am sorry to say, actually in the profession itself—who, very ignorant themselves, do not understand the absolute necessity of our acquiring, for the purposes of diagnosis, a precise knowledge of the minutest points in anatomy and physiology. Believe me, it is not merely not a waste of time to devote yourselves as much as possible to this work, but it is an absolute necessity, if you are to fulfil one of the first requirements of success—viz., the power of forming an accurate diagnosis. If you have forgotten the branching of this nerve or artery, or the parts of the medulla oblongata or cerebellum, you may rely upon it that one of your competitors in life has not, and for that lack of knowledge you may suffer in reputation. To ridicule the acquirement of knowledge has always been the custom of quacks and empirics, or a symptom of retrograde

degeneracy. Let us hope that the progress of general education will soon extinguish such a tendency, which can readily enough be shown to spring from the miserable cry of "*Cui bono?*" with which science is, unfortunately, only too familiar.

Do not, therefore, grudge any time given to elaborating as far as possible your knowledge of anatomy and physiology. Join every class that offers the means especially of learning practical physiology. The handling of instruments, the making of accurate records, which are the essentials of practical physiology, will give you the best training for the wards that can be imagined, and at the same time will give, if possible, more life and an intense interest to a study which, invaluable and indispensable in itself, becomes still more attractive when one is actively engaged in its pursuit; while it has no equal for cultivating the faculty of observation, upon which both the diagnosis and treatment of diseases are founded. Quite recently another notion has been revived—viz., that the storing up of facts is not necessary, and that what is required is the inculcation of general principles. But, as a matter of fact, the recognition and clear understanding of a great general principle is only perfectly possible when we have mastered the details of a concrete example or examples of its application; and this recent advice, to put the cart in front of the horse, would as much help on the progress of medicine—which, do what we will, is always too slow—as assist the movement of the vehicle in the proverb.

Suppose, now, that you have availed yourself to the utmost of your opportunities, and have accomplished successfully the passage of the various examinational Rubicons which bar the way to the training oneself in clinical work in the hospital wards. Here it is no exaggeration to say that we are obliged to enter on a new series of considerations altogether. The fact is, that with the beginning of hospital life we should think of the special phase of medical work in which we shall find ourselves afterwards. Some of us are, unfortunately, obliged to qualify ourselves for practice as soon as possible, and engage at once in the hard responsibilities of earning a livelihood. A very few intend to persevere as specialists or consultants in the metropolis. With these two classes of men I have little to do, since they form a marked minority; but I wish at least to try to follow the fortunes of the man who ultimately goes into general practice, and to consider before you how the hospital career he chooses may be made the most effective for him in his after struggles; what the difficulties are against which he will have to contend, and how they may be best overcome. The opening of a man's hospital career is the same for all; and while I am praising the traditions of University College I cannot forbear from quoting the utterly unbiased evidence of some friends of mine, who, directing as they do large institutions, and therefore constantly testing the clinical work of numbers of men drawn from the various schools, have often volunteered to me the statement that the system of note-taking and training in the groundwork of hospital duties at University College Hospital is nowhere excelled.

After fulfilling the duties of all junior positions—i.e., dresserships, clerkships, &c.—in the hospital, everyone should, if possible, begin to acquire a knowledge of the direct responsibilities which are entailed by the immediate or personal care of cases. Considering, however, the necessarily limited number of positions as house surgeon, physician, &c., which exist in one hospital, you may ask what are the unsuccessful competitors to do? There are various ways in which they can obtain the necessary experience, which I am particularly anxious to press forward as very desirable in your best interests. These ways of obtaining the responsible care of patients are either the gaining of hospital appointments elsewhere, or that of taking an assistantship to a practitioner with a large practice. I do not, however, myself believe that anyone can occupy a position of this kind for more than six months with advantage, owing to the fact that the responsibility is not absolute, but of the invaluable and absolutely indispensable training which it gives no one can speak too highly. That no one, except he be forced by the *res angusta domus*, should enter practice without this special training is sufficiently evidenced by the following considerations. From time to time anyone who reads the medical papers sees every few years someone lamenting the extinction of the old apprenticeship system, and suggesting that the modern student is far less efficient as an all-round physician than his predecessors in a parallel stage of development.

That such regrets are most ill-founded and the comparison quite misleading I am convinced; and I assert that the modern student, if completely educated, is, both as a diagnostician and as the deviser of treatment, infinitely superior to the rule-of-thumb production of the old apprenticeship system. But that such statements must have some basis of fact is clear, otherwise we should not hear so eminently powerful a voice as that of Mr. Wheelhouse raised in support of this, to me, terribly retrograde assertion. The truth lies in this part of it—namely, that a modern student, if he be only imperfectly educated—that is, if he has managed to scramble through the requirements of the licensing board in the shortest possible time, if he has not had the six months' care of patients himself which I have just insisted on, if, I say, such a three-quarter trained man goes into the country and is suddenly called upon to treat a case of mild measles—a disease he has probably never seen—he will of course be at an utter loss. But I submit that there is neither justice nor logic in selecting a man thus incompletely trained as a representative of his class, and then comparing him with an apprentice whose whole time has been occupied with just the kind of work quoted above. Take the two men six months later, and on which side will the comparison be favourable? Surely on that of the modern student, whose better training, added to the quickly acquired knowledge of the empirical treatment (so-called) of common every-day diseases, will furnish a man of far greater value than the apprentice, who remains in the mire of empiricism exactly where he was. The inference to be drawn from a consideration of this subject is, if we examine it closely, of course, the practical point I raised—viz., the desirability of putting the future practitioner in a position of responsibility of some kind or another—it matters little what or where, provided the opportunities are fair.

At the end of this period of six months' charge of cases, everyone, it seems to me, should at once devote six months to attending systematically the best special hospitals in London—i.e., the ophthalmic, nerve disease and gynaecological institutions, finally attending a course on mental diseases. In connexion with the last point, it is very greatly to be hoped that Mr. Brudenell Carter's scheme of establishing a central hospital for insanity in all its forms will succeed, inasmuch as the student will then have before him the means of acquiring in the shortest time, as well as in the most efficient manner, knowledge of that very special form of medical practice. The economising of time is so essential for all of us, that this plan of a central asylum, though for some unexplained reason keenly opposed by the alienists, would be one of the best schemes for our assistance as students which has yet been devised. Supposing, further, that the student is thus very thoroughly qualified, will he of necessity succeed? is, I expect, the question you would now propose to ask. Ultimately I have no doubt, if he honestly works; but there remains a coping-stone to the edifice which but few men add, and yet which I believe to be of fundamental importance—that is, foreign travel and experience. In only one other profession—the law—is it so necessary for a man to have studied human nature as much, and in a very much more varied shape, than that presented to him by the microcosm of hospital life or British private practice. There is one way, and but one only, by which this consummation may be attained, and the acquisition of which will go further, believe me, to enable you to reap the fruits of years of earnest work as a student than anything else, and that is experience abroad. At present, many men seek this final qualification by "taking a ship," as it is said; in other words, going as surgeon on some steamship or other. This is but half doing it at the best, and has the disadvantage that the horizon is very limited, being practically bounded by the number of persons on board, who, as a rule, require very little attention. Besides, a man has "no time" or inclination to read on board ship. For these reasons, six months, or at the outside a year, will give all the experience that one can draw with benefit from this method of studying the whims and fancies of our fellow-men. The far better plan is to go abroad to attend hospital practice on the Continent. Many are deterred by the expense, others because the wretched education of our schools in foreign languages makes them feel helpless when out of sound of their mother tongue. Neither of these considerations should weigh for a moment. Living abroad is extremely cheap, and a few evenings a week before starting will go a long way towards overcoming the

last-mentioned difficulty; and if there is no time for that even, there are ample opportunities at Vienna, for so many English and Americans now go to work there, that the specialist courses are actually given in English. Besides, it is not absolutely necessary that you should understand the language at first. The study of what you see will for some time be of ample interest and instruction, and meanwhile you can speedily pick up enough to understand what is said of a case, especially as fortunately everywhere medical terms are almost cosmopolitan. I cannot sufficiently express the very varied way in which the experience of foreign work reacts upon one; but perhaps a concrete example will make it clear that it is not only a matter of general improvement, but an actual question of education, which may or may not weigh heavily in the scale for or against you in after life. Take, for instance, the joint disease in locomotor ataxy. Years after Charcot had carefully described this condition, and deposited specimens at the Salpêtrière, its bare existence was discussed in this country, and even discredited in open discussion. So, too, with functional nerve disease. I feel sure that no one who has not been to Paris, and seen the hysteroid condition in its extreme development, can realise fully this form of neurosis or how it is to be dealt with. The breadth of thought, besides, to gain which nothing is better than travelling, and which is absolutely necessary for you to be able to gauge the depth of people's minds, is really the outcome of your trying to understand others; and it is obvious that without such special training a man must be very exceptional who can, on his entry into work, visit a number of patients in a morning, listen quietly to all their innumerable complaints, and sympathise with all their wants. Even after a man has finished his six months' charge of cases, six months' work in the special hospitals, and six months abroad, there are circumstances under which he may have time to further extend his knowledge, and, if at all possible, he should take advantage of them. Such an opportunity is the occasion of a graduate taking his M.D. or M.S. degree. At last, the University of London has conceded the truth of the self-evident proposition that there are limits to the usefulness of examinations, and that the more foreign method of writing a thesis should take the place of the absurd plan of composing a commentary on a single case, and answering a few questions on half a dozen more. It would be a very great advantage if this thesis system were to lead to the general custom of a man taking up a piece of original work and thoroughly investigating some important point in physiology or pathology. The whole tenour of English science has always been towards the elucidation of new facts, and it is a great pity that the amount of energy that one sees enshrined in volumes like those of the Pathological Transactions should lead to nothing or next to nothing. There is scarcely one subject in the whole forty odd volumes which embodies the discovery of the causation or mode of action of any *materies morbi*. The remedy for this lies in making by means of original work at least one brick for the edifice of medical science. To take a most striking example of the importance of laboratory work as compared with bedside observations, I may quote from an article in *Nature* some time back. For centuries, we may say thousands of years, medical men have stared at patients dying of zymotic disease. Although the most ample clinical notes have been taken and hundreds and thousands of cases carefully observed, this process might have gone on for thousands of years to come, and we should have been as far off as ever from knowing what the real cause of such disease is had it not been for the laboratory labours of Pasteur and his followers in bacteriology. The sources of error and the want of limitation in clinical work are so countless and so complex that it is very difficult, even for the most extensively experienced, to make accurate deductions, whereas no one can take up some experimental work without obtaining facts of much interest and value. Every experimental result is a true fact; it is the interpretation which may be erroneous. The indiscriminating part of the public are apt to confuse these together, and in their haste (to put it mildly) they abuse science, instead of, as they should rather do, the observer, who has mistakenly understood what he has seen. Nothing is commoner than to see in the papers mud thus thrown at scientific investigation, and yet people might just as reasonably abuse the rapids of Niagara because some courageous idiot has got himself drowned in trying to swim down them. Let me therefore strongly urge you to gain your degree by clearing away one of our stumbling-blocks of ignorance. Success is

certain; for Science deals out all prizes and no blanks to anyone who honestly works for her.

Imagine, now, that we are ready to settle down in practice. Where are we to do it? It may seem impossible to choose any place where doctors do not already abound; so the first practical consideration is, What number of population is able to support a medical man? And this, I believe, is usually supposed to be 1200. Under these circumstances nothing would seem to be easier than in choosing any locality to find out the number of the population and of the doctors already there. But a factor of still greater importance is the question whether the population of that particular place is or is not on the increase. If it be increasing, then the certainty, other things being equal, of your success is assured. With a population that is stationary there is always the chance that some day there will come one mightier than yourself, who by his superior skill will attract your patients from you; and the exemplification, by their naturally selecting him, of the struggle for existence, would not be agreeable to you. Obviously where the field is unlimited this danger does not exist; hence, from every point of view, choose a place which is growing, and not standing still.

In making these remarks, I have assumed that you will elect to start by putting up a brass plate and waiting. There are two cases in which the population question is supposed to have little weight—(1) where a son steps into his father's place, and (2) where purchase of a practice or interest in one has been made. Referring to the first of these, I know many of my fellow-students who have verified the truth of the supposition, and have shown themselves not only fully able to uphold a previously gained reputation, but have elevated and extended it beyond its original limits. As regards the second case, however—viz., the much vexed question of purchase,—that is another matter altogether, and one which must be considered in various aspects before it can be criticised in a manner to be of any use to you. To buy a practice, or part of one, is a very serious thing. It means a final parting with capital on the part of those who are lucky enough to have it, which they otherwise would have used to keep themselves comfortably going until they should have become sufficiently well known in their new surroundings to make the brass plate attractive. Now, there are two chief ways in which it is supposed that immediate work can be secured by means of purchase. One is to buy a practice right out; the other is to obtain introduction as a partner into one already thoroughly well established by paying a part share. Of these two the latter is incomparably the safer, and of the cases which have come under my own observation I do not know one which has not proved a financial success—a fact which reflects, it seems to me, credit on both sides. It is far otherwise with the plan of purchasing a practice *in toto*. To judge by the facts known to me, that, with one small class of exceptions, is invariably a mistake, to put it as mildly as possible. The exceptional instance is where the small nucleus of a commencing practice in an increasing neighbourhood has been secured. That is well worth having to an energetic man, for it practically saves him a couple of years, and two years' estimated income of one who has started *de novo* would be a fair price, in most instances, for this special benefit. Purchase, on the other hand, of a practice of a moderate or long-standing history is unsatisfactory, and with the increase of the means whereby people travel more about the country, and are easily able, therefore, to consult whom they will, it must become still less advisable a thing to do. The public, moreover, are not so stereotyped nowadays that their health interests can be handed about as a matter of business between two indifferent individuals without their own consent; and it is not always possible, even if the vendor have the best intentions, to transfer cases to the new comer. My observation of the results of such an arrangement may have been unfortunate. I cannot say. All I know is that I have for several years made it a matter of interest to follow the results of purchase amongst my friends, and whenever it has been a case of buying the whole practice it has never seemed to succeed. Finally, never buy a practice without carefully determining what is the atmosphere in which you are going to live; in other words, what reputation your predecessor bears amongst his colleagues and patients. Taking everything into consideration, it would appear that, for private general practice, the best plan, if you have no family or partnership opening, is to put up a plate in a thriving and increasing neigh-

bourhood, and to make your own way. That brings us, therefore, to the point of your having made a start; and now let us review what dangers and impediments tend to block a medical man's progress and mar his success.

I think it best to divide these under two headings—(a) professional, (b) social.

(a) *Professional Drawbacks*.—The first drawback which everyone experiences after he has been a short time in general practice is an uncomfortable suspicion that medical science and advancement are slipping along just the least bit faster than his own knowledge increases, and later on the constant cry is, "Oh, I have no time to read. I often cannot even find a moment to read the medical journals." Now, at the beginning this is certainly not so, and those who are starting work in or near a large city should make it part absolutely of their daily duty to attend special hospital and post-graduate courses. At this point let me digress for a moment. Post-graduate courses are but things newly sprung up among us, and things which I believe might be of much value to the medical practitioner. They took origin, or at least have developed, most completely in America, but they owed their initiation there, I strongly suspect, to the extreme shortness of the medical curriculum in most parts of that country. If a man were turned out a full-blown M.D. in two or three years, as he used to be in most States, it goes without saying that, being only partly trained, he was of necessity obliged to get the rest of his education somewhere else, and, as a matter of fact, the best men either came to Europe for that purpose or thronged the post-graduate schools. Now, that system was a very bad one. The proper function of a post-graduate course is not to fill up the gaps of an imperfect training; its only legitimate purpose is to assist the hard-working and harassed practitioner to keep himself abreast of the incessant progress and consequent change in medical science. Post-graduate lectures, therefore, should not consist of easy lessons on gout or pneumonia, or the methods in vogue of testing for albumen, all of which subjects should figure prominently in the ordinary education of a clinical clerk, but should be a concise and clear exposition of the most recent reliable investigations into the pathology and treatment of diseases, preferably the rarer ones. In thus recommending attendance at lectures &c., I sympathise with the very natural dread that if you are away from your house attending lectures you may be missing the call to some important case. This thought ought not to be allowed to act as a deterrent, for the ultimate gain far outbalances slight temporary losses, and, believe me, such losses are most rare. However, to revert to the difficulty which everyone feels in keeping up his knowledge, I cannot admit the justice of the plaint that there is no time to read the medical papers. There is one plan which makes it quite easy to do this, and that is simply to put aside what you may be going to do when the paper is delivered, or read it directly you have completed what you are actually doing. The numberless opportunities afforded during dressing, driving, &c., make this complaint a very hollow one. Recently the British Medical Association has done much to aid us in this respect by publishing in a very useful supplement to the journal translations and reviews of foreign papers on many important and interesting subjects, and with subscriptions to book clubs the difficulty that is complained of becomes, I think, a very small evil to conquer. There is no doubt, however, that it is unfortunately easy for a man to fall into a groove and to forget not merely the things he once knew, but also the way in which he acquired the knowledge which is, after all, his stock-in-trade. Thus I actually knew of a practitioner who seriously asked a friend of mine last year whether Pasteur had really discovered anything, and I have myself been equally seriously asked by a London consultant what experimental science had taught medicine. Of course, questions of this kind reveal an ignorance which is born of boundless forgetfulness, rather than lack of primary education. Upon this point especially it is astonishing to discover the blanks which some minds are as far as the source of their every-day knowledge is concerned. The pulse, for instance, is a fairly well known phenomenon, but if asked what causes it, everyone would doubtless say, "Of course the pulsation at the wrist is due to the movement of the blood in an artery caused by the action of the heart as a pump." But if it had not been for an experiment of Galen's that little fact would have remained for ever unknown unless some other experimental scientist had taken up the

matter, and we should have only had to guide us in disease the erroneous idea, which anatomy teaches, that the arteries contain air or little else. I would not, however, spend further time on a side issue of this sort but that the forgetfulness of some of our own profession should be used as a handle by the enemies of science and medical progress is so regrettable a fact that one feels obliged to warn you against falling into the same pit. But all these you will perhaps regard as very minor difficulties, and fear as much more serious such things as professional competition and ethical matters, which, while acute, may seem very formidable obstructions, not only barring your progress, but even suggesting failure. Now, in the first place, as regards professional competition, have no fear of that whatever, if you can say to yourself, "I have done my best." In ninety-nine cases out of a hundred, a patient who has left you will come back to you, and acknowledge with regret not having followed your advice. Where, therefore, others may seem to have reaped where you have sown, never mind. If you have done your duty to the utmost, your reputation and probable success are as safe as ever. This brings us to the all-important question of the ethics and etiquette of the profession. The public is always ready to laugh at "doctors' etiquette." It does so, as usual, in ignorance, and in the very special ignorance that these same medical ethics have grown up from a loyal desire on the part of medical men to protect the best interests of their patients. The public does not recognise that the reason why the care of a patient is apparently hedged round with this or that formality is that the profession feels that every one of its members who undertakes the treatment of a case does so with a full sense of his responsibilities, and it is only just and equitable towards him to regard his assumption of that responsibility as a loyal one, and consequently to abstain from interference with his work save with his full consent and coöperation. This is a very simple and straightforward consideration, the reasonableness of which must strike all whom it especially concerns. The ethics of the profession have been admirably summarised by a committee of a branch of the British Medical Association. No one, I think, can read the kindly judgments and criticisms which the medical journals pass upon the difficulties and disputes submitted to them without feeling that in their columns we have a safe and good opinion upon whose advice we can rely, if plunged in some difficulty of the kind. If, therefore, the even tenour of your way be interrupted by some dispute with a brother practitioner upon a point of this nature, take the advice of the ethical correspondence column, and I believe your difficulty and worry will vanish speedily. Connected with ethical disputes in which mere professional ability is in discussion are others in which your honour may be involved. Such matters are as serious as the others are relatively trifling. It is not easy for you at the commencement of your career, and, above all, if you know little of the world, to be sure how you ought to act. It is so easy for others to advise compromise on the plausible grounds of the "good of the profession" &c. that you may readily listen to such suggestions, and the more so if you want to live and let live. But to do so is fatal. If the matter becomes at all public, as it must if it involves your honour, make no compromise whatever; but, with your facts orderly arranged, make a full statement of the matters in dispute, and as each attack is delivered, repel it as strongly, albeit as quietly, as possible. Life, after all, in these cases is usually a repetition of the playground; and you may rely upon it that if from witnessing your good nature the other boys get the idea that you may be kicked with impunity, your difficulties will rather accumulate than decrease.

(b) *Social Drawbacks*—I come now to social drawbacks, and thereby I mean the troubles you may meet with in dealing with your patients, and above all their friends. I have already touched upon the chief points in which your success as dependent upon your relations with the laity is concerned. There are some others which may appear to you when struggling your hardest to be most serious, and, in fact, fatal, but which nevertheless you gradually learn by experience are to be survived, and that without special difficulty. I suppose that the worst of these is an unsuccessful case. You may have done your best; you may have made a mistake. In any case, the result is a failure, and as you stand by the bedside and watch slipping away a life you would give anything to save, you may believe that with it is also expiring, not only your reputation and your future, but the chance of

meeting your obligations and responsibilities. I suppose nothing is more difficult to a professional man than to believe that such failures are otherwise than irrevocable blows. While not denying that they may retard slightly your progress, the mere fact that to err is human should console you provided that you have done your best, and to remind you that others have also failed and by steady work have obliterated the memory of it. The apparent force of such a difficulty rests upon the relationship between a medical man and his clients, which we speak of as his reputation. Perhaps a more real danger is one from which until recently no satisfactory release offered itself. I refer to the ease with which anyone whose livelihood depends so absolutely upon his good reputation as a doctor's does can be attacked by those vampires of the public who are known as blackmailers. I daresay that there are few practitioners who at one time or another in their career have not either been threatened or served with a legal process by some scoundrelly man or woman for an alleged malpraxis or worse treatment. This special form of attack upon you admits of but one method of repulsion, and however much it may appear better to you to try and "agree with thine adversary while he is in the way with thee," you must disregard any such fatal inclination, and return no answer but the address of your solicitor. The necessity for this course was every year evidenced by appeals in the journals for subscriptions to pay the expenses of Dr. So-and-so, who had been obliged to defend himself against some abominably false accusation, the mere publication of which could not fail to have done harm. A form of tyranny so vile is one to which doctors of all people, as genuine benefactors of humanity, should be the last to be exposed, and it is clearly the province of the profession as a whole, and not of the individual, to undertake the defence in such a case. For this purpose of recent years a Medical Defence Union has been started, and has already exercised most salutary and wholesome effects on this particular social drawback. One of your first duties on entering the profession should be to join this Union. If you should never become an object of attack yourself, a brother practitioner may be; and if you know, as is the case, that the prompt action of the Defence Union will most probably prevent his being exposed to even the obloquy of having to defend himself, you have the satisfaction of lending your aid to the best of all possible causes. So far I have dealt with things which might arise to hinder your progress, and I took the worst first, because to know what the difficulty is in anything is to already half abolish it, and because no one can hope to go through life without some acquaintance with these troublesome matters.

We may now turn to much more pleasant considerations. In the first place, when we compare, as contrasted with others, the openings which the medical profession offers, with its opportunities in civil practice, lunacy, Government work, the army, the navy, the Indian Medical Service, &c., its chances seem unequalled as a means of gaining a livelihood. Every man who honestly works is bound to succeed, and there is work for all. Not only that, but it is work of ever-increasing interest and variety. As physical science advances and becomes more exact, so precisely does our special branch of applied science. This constant improvement, this constant correction of error, instead of being a theme of congratulation, has for ages been a source of ridicule to a misguided people, who know not science or her methods. People laugh at doctors for changing their opinions, especially in the direction of treatment; they forget, or have never realised, that the cause of that change is the highest attribute of human reason—namely, the power of discovering what is wrong and the endeavour to replace it by something better. To them it is as if the treatment of disease was a haphazard sort of affair, and in which the determination of what should or should not be done in this or that or the other disease was a matter of chance or of what is falsely called experience. To us, however, who know the true aspect of the question, it presents itself in a totally different light. We see that our knowledge is daily increasing, is daily acquiring a more scientific basis, and therefore I would say to all, that as far as all your interests in merely living in this world are concerned, you have chosen the best possible means of gaining an honourable success. If you work you cannot fail.

There is one more side of the subject of which I should like to say a few words in conclusion. You have to remember that while a unit in a large profession, that pro-

Session is but one among various communities of men, and consequently in your future you must also think both of what you owe to your profession and science as well as to the community at large. The first duty of every one of us is, it seems to me, to join with his brethren, so that by union the profession can stand and act together. At the present moment the representation of the profession in the House of Commons is about $\frac{1}{2}$ per cent. As for the House of Lords, which decides many questions of the utmost importance to sanitation and to general medicine, it is composed of many noblemen, a large share of lawyers, a few bishops and generals, and one poet, but no representative of our profession or of science. What can be more absurd or unreasonable? Even with all the unity and strength which the British Medical Association affords it is difficult to resist arbitrary Acts being placed on the Statute-book by statesmen who know about as much of the requirements of the profession as we should of the means of circumventing Russia or keeping France tolerably quiet for a week at a time. There is, however, another way in which we can gain strength from bodies outside our own, which we can obtain more and more exactly in proportion as we seek to elevate our profession by cultivating the scientific sides of it, and thus bringing it in touch with all other branches of science. A striking proof of the value of this union with other scientific men was recently given by the decision of the President of the Board of Trade in reference to the Bacteriological Institute, and I should therefore like to allude to it now. As you may know, it became necessary that the great central and National Bacteriological Institute, which is now being founded, should be registered, in order to guarantee that the fund raised could not be devoted to any other purpose. Sir Michael Hicks Beach refused to sanction the registration. Concerted action on the part of the profession, backed up and supported by the sympathetic efforts of all their branches of science, enabled us to overcome the difficulties before us, and to obtain the registration we demanded. It is incumbent, therefore, upon all of us to unite together, and, in spite of its defects, the best way to do this is, I believe, to join the British Medical Association. No human organisation was or is likely to be perfect, and the Association is no exception to the rule. But that it is of the greatest service to the profession none can doubt, and future reform will make it better than it is now. Joining it will bring you into line with and in touch with your fellow-practitioners. You will not feel that you are living only for yourself, but that the opportunity is before you of adding your weight to the furtherance of plans which should tend to the welfare and advancement of the profession, and of helping to resist burdens and attacks which will always be thrust upon us. Finally, let me once more congratulate you on entering a profession in which honest work is sure to succeed, and in which the actual work is always interesting and always advancing; and in congratulating you, let me thank you for the attention you have accorded these few remarks.

Abstracts

OF

INTRODUCTORY LECTURES ETC.

DELIVERED AT THE

MEDICAL SCHOOLS OF LONDON

AT THE

Opening of the Session 1891-92.

MIDDLESEX HOSPITAL.

INTRODUCTORY ADDRESS BY WM. DUNCAN, M.D., F.R.C.S.

AFTER offering a warm welcome to old friends and to those who had come for the first time, Dr. Duncan proceeded to address those present on the subject of Thoroughness. "I feel," he said, "that it is a privilege and an honour to have the pleasure of addressing you to-day in what is, and must be, for me a position of responsibility. For I conceive that my aim should be, if possible, to tell you something which will be useful to you in your future career both as students and as practitioners of medicine. You have chosen

a profession which is an honourable one, one which will most certainly do you honour and amply reward you if you endeavour to follow in the footsteps of such men as Sir Charles Bell, Campbell de Morgan, Murchison, and others, whose names are an honour to our profession and to this hospital, where they studied and taught. In no profession is steady and continued work more essential to success, and I quite think in none is it more certain to receive its due reward. We cannot all have intellectual qualities such as the great men I have named possessed; but we can have the next best thing—namely, a determination to use what we have to the utmost of our powers. Nothing further is needed in the profession of medicine to ensure each of you a successful career. Remember that you can accomplish whatever you are determined to do.

'Animus homini, quicquid sibi imperat, obtinet.'

But at the same time this cannot be effected without hard work. As Horace so truly says:

'Nil sine magno vita labore, dedit mortalibus.'

Genius has been variously defined. It is said by one to be 'a great capacity for work'; Carlyle defines it as 'the infinite capacity for taking pains.' Neither of these definitions, however, seems to my mind to be quite sufficient. I believe the distinctive quality of genius is 'the possession of some mental quality or qualities in an unusual degree beyond the average powers of mankind, giving its possessor the capacity to do, without any trouble whatever, that which talent with all its infinite pains can never quite succeed in accomplishing.' Genius may or may not be joined to a capacity for earnest work, but so much has been done in the world by the hard workers, who have made good use of the new ideas and inventions of the men of genius, that they have often obtained most of the credit, and, perhaps, deserved it. Work to be thoroughly effective must be well directed and systematic, and this is the point to which I wish particularly to draw your attention. The first obstacle which usually confronts those seeking to enter the medical profession is the preliminary examination. All of you, doubtless, have passed a preliminary examination, but the question is have you passed the right one? The differences between the several examinations and examining bodies are not well known to the general public, and very little trouble is taken apparently to instruct them. The consequence is that some men pass a preliminary examination which does not entitle them to enter for a degree in medicine at the London University, and it is only after they have spent some time at their medical studies that they find out their mistake; then circumstances perhaps compel them to go on and be content with another qualification. Care should be taken to prevent this as far as possible by giving the fullest instructions to parents and teachers of intending candidates. Let me, then, earnestly advise all new students who have not passed the matriculation examination of the London University to do so without delay. A new era is now opening for the London medical student by the formation of the Albert University, and those of you who began your studies without matriculating are to be congratulated in that instead of spending the last two and most valuable years of your medical studies elsewhere in order to get the degree and title of Doctor of Medicine, you can now during your whole curriculum remain in London, which possesses the largest amount of material for clinical teaching in the world, and at the end of four or five years you can go forth as fully equipped as your fellows to compete in the keen struggle for existence which goes on in the medical, as in every other profession. Every student should possess a knowledge of biology, chemistry, and physics. The object of a course of study in medicine is not only to make you acquainted with a number of facts, but to train your minds to estimate accurately the relative values of these facts in their bearing on each individual case brought before you—in short, you have to learn the art of reasoning. The two things are essential—viz., the full knowledge of your work in all its details, and a mind properly trained to grasp the whole as well as see each part in logical order and position. No mere parrot learning of your work will effect this—system and method must go hand in hand with accumulation of facts, and the earlier in your work you realise this the better for you. Amongst other things the Greek and Latin, which are now undervalued by some, are capital aids to the training of the reasoning powers, and he is to be congratulated who has