The Student Life

A FAREWELL ADDRESS TO
CANADIAN AND AMERICAN MEDICAL STUDENTS

BY

WILLIAM OSLER, M.D., F.R.S.

REGIUS PROFESSOR OF MEDICINE IN THE UNIVERSITY OF OXFORD

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I

Except it be a lover, no one is more interesting as an object of study than a student. Shakespeare might have made him a fourth in his immortal group. The lunatic with his fixed idea, the poet with his fine frenzy, the lover with his frantic idolatry, and the student aflame with the desire for knowledge are of 'imagination all compact.' To an absorbing passion, a whole-souled devotion, must be joined an enduring energy, if the student is to become a devotee of the grey-eyed goddess to whose law his services are bound. Like the quest of the Holy Grail, the quest of Minerva is not for all. For the one, the pure life; for the other, what Milton calls 'a strong propensity of nature.' Here again the student often resembles the poet—he is born, not made. While the resultant of two moulding forces, the accidental, external conditions, and the hidden germinal energies, which produce in each one of us national, family, and individual traits, the true student possesses in some measure a divine spark which sets at naught their laws. Like the Snark, he defies definition, but there are three unmistakable signs by which you may recognize the genuine article from a Boojum—an absorbing desire to know the truth, an unswerving steadfastness in its pursuit, and an open, honest heart, free from suspicion, guile, and jealousy.

At the outset do not be worried about this big question—Truth. It is a very simple matter if each one of you starts with the desire to get as much as possible. No human being is constituted to know the truth, the whole truth, and nothing but the truth; and

even the best of men must be content with fragments, with partial glimpses, never the full fruition. In this unsatisfied quest the attitude of mind, the desire, the thirst (a thirst that from the soul must rise), the fervent longing, are the be-all and the end-all. What is the student but a lover courting a fickle mistress who ever eludes his grasp? In this very elusiveness is brought out his second great characteristic—steadfastness of purpose. Unless from the start the limitations incident to our frail human faculties are frankly accepted, nothing but disappointment awaits you. The truth is the best you can get with your best endeavour, the best that the best men accept—with this you must learn to be satisfied, retaining at the same time a due humility and an earnest desire for an ever larger portion. Only by keeping the mind plastic and receptive does the student escape perdition. It is not, as Charles Lamb remarks, that some people do not know what to do with truth when it is offered to them, but the tragic fate is to reach, after years of patient search, a condition of mind-blindness in which the truth is not recognized, though it stares you in the face. This can never happen to a man who has followed step by step the growth of a truth, and who knows the painful phases of its evolution. It is one of the great tragedies of life that every truth has to struggle to acceptance against honest but mind-blind students. Harvey knew his contemporaries well, and for twelve successive years demonstrated the circulation of the blood before daring to publish the facts on which the truth was based[1]. Only steadfast-

[1] 'These views, as usual, pleased some more, others less; some chid and calumniated me and laid it to me as a crime that I had dared to depart from the precepts and opinions of all Anatomists.'—*De Motu Cordis*, chap. i.

ness of purpose and humility enable the student to shift his position to meet the new conditions in which new truths are born, or old ones modified beyond recognition. And, thirdly, the honest heart will keep him in touch with his fellow students, and furnish that sense of comradeship without which he travels an arid waste alone. I say advisedly an honest heart—the honest head is prone to be cold and stern, given to judgement, not mercy, and not always able to entertain that true charity which, while it thinketh no evil, is anxious to put the best possible interpretation upon the motives of a fellow worker. It will foster, too, an attitude of generous, friendly rivalry untinged by the green peril, jealousy, that is the best preventive of the growth of a bastard scientific spirit, loving seclusion and working in a lock-and-key laboratory, as timorous of light as is a thief.

You have all become brothers in a great society, not apprentices, since that implies a master, and nothing should be further from the attitude of the teacher than much that is meant in that word, used though it be in another sense, particularly by our French brethren in a most delightful way, signifying a bond of intellectual filiation. A fraternal attitude is not easy to cultivate—the chasm between the chair and the bench is difficult to bridge. Two things have helped to put up a cantilever across the gulf. The successful teacher is no longer on a height, pumping knowledge at high pressure into passive receptacles. The new methods have changed all this. He is no longer *Sir Oracle*, perhaps unconsciously by his very manner antagonizing minds to whose level he cannot possibly descend, but he is a senior student anxious to help his juniors. When a simple, earnest spirit animates a college, there is no

appreciable interval between the teacher and the taught—both are in the same class, the one a little more advanced than the other. So animated, the student feels that he has joined a family whose honour is his honour, whose welfare is his own, and whose interests should be his first consideration.

The hardest conviction to get into the mind of a beginner is that the education upon which he is engaged is not a college course, not a medical course, but a life course, for which the work of a few years under teachers is but a preparation. Whether you will falter and fail in the race or whether you will be faithful to the end depends on the training before the start, and on your staying powers, points upon which I need not enlarge. You can all become good students, a few may become great students, and now and again one of you will be found who does easily and well what others cannot do at all, or very badly, which is John Ferriar's excellent definition of a genius.

In the hurry and bustle of a business world, which is the life of this continent, it is not easy to train first-class students. Under present conditions it is hard to get the needful seclusion, on which account it is that our educational market is so full of wayside fruit. I have always been much impressed by the advice of St. Chrysostom: 'Depart from the highway and transplant thyself in some enclosed ground, for it is hard for a tree which stands by the wayside to keep her fruit till it be ripe.' The dilettante is abroad in the land, the man who is always venturing on tasks for which he is imperfectly equipped, a habit of mind fostered by the multiplicity of subjects in the curriculum; and while many things are studied, few are studied thoroughly. Men will not take time to get to the heart of a matter.

After all, concentration is the price the modern student pays for success. Thoroughness is the most difficult habit to acquire, but it is the pearl of great price, worth all the worry and trouble of the search. The dilettante lives an easy, butterfly life, knowing nothing of the toil and labour with which the treasures of knowledge are dug out of the past, or wrung by patient research in the laboratories. Take, for example, the early history of this country—how easy for the student of the one type to get a smattering, even a fairly full acquaintance with the events of the French and Spanish settlements. Put an original document before him, and it might as well be Arabic. What we need is the other type, the man who knows the records, who, with a broad outlook and drilled in what may be called the embryology of history, has yet a powerful vision for the minutiae of life. It is these kitchen and back-stair men who are to be encouraged, the men who know the subject in hand in all possible relationships. Concentration has its drawbacks. It is possible to become so absorbed in the problem of the 'enclitic δε,' or the structure of the flagella of the Trichomonas, or of the toes of the prehistoric horse, that the student loses the sense of proportion in his work, and even wastes a lifetime in researches which are valueless because not in touch with current knowledge. You remember poor Casaubon, in *Middlemarch*, whose painful scholarship was lost on this account. The best preventive to this is to get denationalized early. The true student is a citizen of the world, the allegiance of whose soul, at any rate, is too precious to be restricted to a single country. The great minds, the great works transcend all limitations of time, of language, and of race, and the scholar can never feel initiated into the

company of the elect until he can approach all of life's problems from the cosmopolitan standpoint. I care not in what subject he may work, the full knowledge cannot be reached without drawing on supplies from lands other than his own—French, English, German, American, Japanese, Russian, Italian—there must be no discrimination by the loyal student, who should willingly draw from any and every source with an open mind and a stern resolve to render unto all their dues. I care not on what stream of knowledge he may embark, follow up its course, and the rivulets that feed it flow from many lands. If the work is to be effective he must keep in touch with scholars in other countries. How often has it happened that years of precious time have been given to a problem already solved or shown to be insoluble, because of the ignorance of what had been done elsewhere. And it is not only book knowledge and journal knowledge, but a knowledge of men that is needed. The student will, if possible, see the men in other lands. Travel not only widens the vision and gives certainties in place of vague surmises, but the personal contact with foreign workers enables him to appreciate better the failings or successes in his own line of work, perhaps to look with more charitable eyes on the work of some brother whose limitations and opportunities have been more restricted than his own. Or, in contact with a master-mind, he may take fire, and the glow of the enthusiasm may be the inspiration of his life. Concentration must then be associated with large views on the relation of the problem, and a knowledge of its status elsewhere; otherwise it may land him in the slough of a specialism so narrow that it has depth and no breadth, or he may be led to make what he believes to be important dis-

coveries, but which have long been current coin in other lands. It is sad to think that the day of the great polymathic student is at an end; that we may, perhaps, never again see a Scaliger, a Haller, or a Humboldt —men who took the whole field of knowledge for their domain and viewed it as from a pinnacle. And yet a great specializing generalist may arise, who can tell? Some twentieth-century Aristotle may be now tugging at his bottle, as little dreaming as are his parents or his friends of a conquest of the mind, beside which the wonderful victories of the Stagirite will look pale. The value of a really great student to the country is equal to half a dozen grain elevators or a new transcontinental railway. He is a commodity singularly fickle and variable, and not to be grown to order. So far as his advent is concerned there is no telling when or where he may arise. The conditions seem to be present even under the most unlikely externals. Some of the greatest students this country has produced have come from small villages and country places. It is impossible to predict from a study of the environment, which a 'strong propensity of nature,' to quote Milton's phrase again, will easily bend or break.

The student must be allowed full freedom in his work, undisturbed by the utilitarian spirit of the Philistine, who cries, *Cui bono?* and distrusts pure science. The present remarkable position in applied science and in industrial trades of all sorts has been made possible by men who did pioneer work in chemistry, in physics, in biology, and in physiology, without a thought in their researches of any practical application. The members of this higher group of productive students are rarely understood by the common spirits, who appreciate as little their unselfish devotion as their

unworldly neglect of the practical side of the problems.

Everywhere now the medical student is welcomed as an honoured member of the guild. There was a time, I confess, and it is within the memory of some of us, when, like Falstaff, he was given to 'taverns and sack and wine and metheglins, and to drinkings and swearings and starings, pribbles and prabbles'; but all that has changed with the curriculum, and the 'Meds' now roar you as gently as the 'Theologs.'

What I have said upon the general life and mental attitude of the student applies with tenfold force to you on account of the peculiar character of the subject-matter of your studies. Man, with all his mental and bodily anomalies and diseases—the machine in order, the machine in disorder, and the business yours to put it to rights. Through all the phases of its career this most complicated mechanism of this wonderful world will be the subject of your study and of your care—the naked, new-born infant, the artless child, the lad and the lassie just aware of the tree of knowledge overhead, the strong man in the pride of life, the woman with the benediction of maternity on her brow, and the aged, peaceful in the contemplation of the past. Almost everything has been renewed in the science and in the art of medicine, but all through the long centuries there has been no variableness or shadow of change in the essential features of the life which is our contemplation and our care. The sick love-child of Israel's sweet singer, the plague-stricken hopes of the great Athenian statesman, Elpenor, bereft of his beloved Artemidora, and 'Tully's daughter mourned so tenderly,' are not of any age or any race—they are

here with us to-day, with the Hamlets, the Ophelias, and the Lears. Amid an eternal heritage of sorrow and suffering our work is laid, and this eternal note of sadness would be insupportable if the daily tragedies were not relieved by the spectacle of the heroism and devotion displayed by the actors. Nothing will sustain you more potently than the power to recognize in your humdrum routine, as perhaps it may be thought, the true poetry of life—the poetry of the commonplace, of the ordinary man, of the plain, toil-worn woman, with their loves and their joys, their sorrows and their griefs. The comedy, too, of life will be spread before you, and nobody laughs more often than the doctor at the pranks Puck plays upon the Titanias and the Bottoms among his patients. The humorous side is really almost as frequently turned toward him as the tragic. Lift up one hand to heaven and thank your stars if they have given you the proper sense to enable you to appreciate the inconceivably droll situations in which we catch our fellow creatures. Unhappily, this is one of the free gifts of the gods, unevenly distributed, not bestowed on all, or on all in equal portions. In undue measure it is not without risk, and in any case in the doctor it is better appreciated by the eye than expressed on the tongue. Hilarity and good humour, a breezy cheerfulness, a nature 'sloping toward the southern side,' as Lowell has it, help enormously both in the study and in the practice of medicine. To many of a sombre and sour disposition it is hard to maintain good spirits amid the trials and tribulations of the day, and yet it is an unpardonable mistake to go about among patients with a long face.

Divide your attentions equally between books and men. The strength of the student of books is to sit

still—two or three hours at a stretch—eating the heart out of a subject with pencil and notebook in hand, determined to master the details and intricacies, focusing all your energies on its difficulties. Get accustomed to test all sorts of book problems and statements for yourself, and take as little as possible on trust. The Hunterian 'Do not think, but try' attitude of mind is the important one to cultivate. The question came up one day, when discussing the grooves left on the nails after fever, how long it took for the nail to grow out, from root to edge. A majority of the class had no further interest; a few looked it up in books; two men marked their nails at the root with nitrate of silver, and a few months later had positive knowledge on the subject. They showed the proper spirit. The little points that come up in your reading try to test for yourselves. With one fundamental difficulty many of you will have to contend from the outset—a lack of proper preparation for really hard study. No one can have watched successive groups of young men pass through the special schools without profoundly regretting the haphazard, fragmentary character of their preliminary education. It does seem too bad that we cannot have a student in his eighteenth year sufficiently grounded in the humanities and in the sciences preliminary to medicine —but this is an educational problem upon which only a Milton or a Locke could discourse with profit. With pertinacity you can overcome the preliminary defects, and once thoroughly interested, the work in books becomes a pastime.

A serious drawback in the student life is the self-consciousness, bred of too close devotion to books. A man gets shy, 'dysopic,' as old Timothy Bright

calls it, and shuns the looks of men, and blushes like a girl. The strength of a student of men is to travel—to study men, their habits, character, mode of life, their behaviour under varied conditions, their vices, virtues, and peculiarities. Begin with a careful observation of your fellow students and of your teachers; then, every patient you see is a lesson in much more than the malady from which he suffers. Mix as much as you possibly can with the outside world, and learn its ways. The student societies, the students' union, the gymnasium, and the outside social circle should be cultivated systematically, to enable you to conquer the diffidence which goes with bookishness and which will prove a very serious drawback in after-life. I cannot too strongly impress upon the earnest and attentive men among you the necessity of overcoming this unfortunate failing in your student days. It is not easy for every one to reach a happy medium, and the distinction between a proper self-confidence and 'cheek,' particularly in junior students, is not always to be made. The latter is met with chiefly among the student pilgrims who, in travelling down the Delectable Mountains, have gone astray and have passed to the left hand, where lieth the country of Conceit, the country in which you remember the brisk lad Ignorance met Christian.

I wish we could encourage on this continent among our best students the habit of wandering. I do not know that we are quite prepared for it, as there is still great diversity in the curricula, even among the leading schools, but it is undoubtedly a great advantage to study under different teachers, as the mental horizon is widened and the sympathies enlarged. The practice would do much to lessen that narrow 'I am of Paul

and I am of Apollos' spirit which is hostile to the best interests of the profession.

There is much that I would like to say on the question of work, but I can spare only a few moments for a word or two. Who will venture to settle upon so simple a matter as the best time for work? One will tell us there is no best time; all are equally good; and truly, all times are the same to a man whose soul is absorbed in some great problem. The other day I asked Edward Martin, the well-known story-writer, what time he found best for work. 'Not in the evening, and never between meals!' was his answer, which may appeal to some of my hearers. One works best at night; another, in the morning; a majority of the students of the past favour the latter. Erasmus, the great exemplar, says, 'Never work at night; it dulls the brain and hurts the health.' One day, going with George Ross through Bedlam, Dr. Savage, at that time the physician in charge, remarked upon two great groups of patients—those who were depressed in the morning and those who were cheerful, and he suggested that the spirits rose and fell with the bodily temperature—those with very low morning temperatures were depressed, and vice versa. This, I believe, expresses a truth which may explain the extraordinary difference in the habits of students in this matter of the time at which the best work can be done. Outside of the asylum there are also the two great types, the student-lark who loves to see the sun rise, who comes to breakfast with a cheerful morning face, never so 'fit' as at 6 a.m. We all know the type. What a contrast to the student-owl with his saturnine morning face, thoroughly unhappy, cheated by the wretched breakfast bell of the two best hours of the day for sleep, no appetite, and permeated with an

unspeakable hostility to his *vis-à-vis,* whose morning garrulity and good humour are equally offensive. Only gradually, as the day wears on and his temperature rises, does he become endurable to himself and to others. But see him really awake at 10 p.m.! While the plethoric lark is in hopeless coma over his books, from which it is hard to rouse him sufficiently to get his boots off for bed, our lean owl-friend, Saturn no longer in the ascendant, with bright eyes and cheery face, is ready for four hours of anything you wish—deep study, or

> Heart affluence in discoursive talk,

and by 2 a.m. he will undertake to unsphere the spirit of Plato. In neither a virtue, in neither a fault; we must recognize these two types of students, differently constituted owing possibly—though I have but little evidence for the belief—to thermal peculiarities.

II

In the days of probation the student life may be lived by each one of you in its fullness and in its joys, but the difficulties arise in the break which follows departure from college and the entrance upon new duties. Much will now depend on the attitude of mind which has been encouraged. If the work has been for your degree, if the diploma has been its sole aim and object, you will rejoice in a freedom from exacting and possibly unpleasant studies, and with your books you will throw away all thoughts of further systematic work. On the other hand, with good habits of observation you may have got deep enough into the subject to feel that there is still much to be learned, and if you have had ground

into you the lesson that the collegiate period is only the beginning of the student life, there is a hope that you may enter upon the useful career of the *student-practitioner.* Five years, at least, of trial await the man after parting from his teachers, and entering upon an independent course—years upon which his future depends and from which his horoscope may be cast with certainty. It is all the same whether he settles in a country village, or goes on with hospital and laboratory work; whether he takes a prolonged trip abroad; or whether he settles down in practice, with a father or a friend—these five waiting years fix his fate so far as the student life is concerned. Without any strong natural propensity to study, he may feel such a relief after graduation that the effort to take to books is beyond his mental strength, and a weekly journal with an occasional textbook furnish pabulum enough, at least, to keep his mind hibernating. But ten years later he is dead mentally, past any possible hope of galvanizing into life as a student, fit to do a routine practice, often a capable, resourceful man, but without any deep convictions, and probably more interested in stocks or in horses than in diagnosis or therapeutics. But this is not always the fate of the student who finishes his work on Commencement Day. There are men full of zeal in practice, who give good service to their fellow creatures, who have not the capacity or the energy to keep up with the times. While they have lost interest in science, they are loyal members of the profession, and appreciate their responsibilities as such. That fateful first lustrum ruins some of our most likely material. Nothing is more trying to the soldier than inaction, to mark time while the battle is raging all about him; and waiting for practice is a

serious strain under which many yield. In the cities it is not so hard to keep up: there is work in the dispensaries and colleges, and the stimulus of the medical societies; but in smaller towns and in the country it takes a strong man to live through the years of waiting without some deterioration. I wish the custom of taking junior men as partners and assistants would grow on this continent. It has become a necessity, and no man in large general practice can do his work efficiently without skilled help. How incalculably better for the seniors; how beneficial to the patients; how helpful in every way if each one of you, for the first five or ten years, was associated with a senior practitioner, doing his night work, his laboratory work, his chores of all sorts. You would, in this way, escape the chilling and killing isolation of the early years, and amid congenial surroundings you could, in time, develop into that flower of our calling—the cultivated general practitioner. May this be the destiny of a large majority of you! Have no higher ambition! You cannot reach any better position in a community; the family doctor is the man behind the gun, who does our effective work. That his life is hard and exacting; that he is underpaid and overworked; that he has but little time for study and less for recreation—these are the blows that may give finer temper to his steel, and bring out the nobler elements in his character. What lot or portion has the general practitioner in the student life? Not, perhaps, the fruitful heritage of Judah or Benjamin, but he may make of it the goodly portion of Ephraim. A man with powers of observation, well trained in the wards, and with the strong natural propensity to which I have so often referred, may live the ideal student life,

and even reach the higher levels of scholarship. Adams, of Banchory (a little Aberdeenshire village), was not only a good practitioner and a skilful operator, but he was an excellent naturalist. This is by no means an unusual or remarkable combination, but Adams became, in addition, one of the great scholars of the profession. He had a perfect passion for the classics, and amid a very exacting practice found time to read 'almost every Greek work which has come down to us from antiquity, except the ecclesiastical writers.' He translated the works of Paulus Aegineta, the works of Hippocrates, and the works of Aretaeus, all of which are in the Sydenham Society's publications, monuments of the patient skill and erudition of a Scottish village doctor, an incentive to every one of us to make better use of our precious time.

Given the sacred hunger and proper preliminary training, the student-practitioner requires at least three things with which to stimulate and maintain his education, a notebook, a library, and a quinquennial brain-dusting. I wish I had time to speak of the value of note-taking. You can do nothing as a student in practice without it. Carry a small notebook which will fit into your waistcoat pocket, and never ask a new patient a question without notebook and pencil in hand. After the examination of a pneumonia case two minutes will suffice to record the essentials in the daily progress. Routine and system, when once made a habit, facilitate work, and the busier you are the more time you will have to make observations after examining a patient. Jot a comment at the end of the notes: 'clear case,' 'case illustrating obscurity of symptoms,' 'error in diagnosis,' &c. The making of observations may become the exercise of a jackdaw-like trick, like

the craze which so many of us have to collect articles of all sorts. The study of the cases, the relation they bear to each other and to the cases in literature—here comes in the difficulty. Begin early to make a three-fold category—clear cases, doubtful cases, mistakes. And learn to play the game fair, no self-deception, no shrinking from the truth; mercy and consideration for the other man, but none for yourself, upon whom you have to keep an incessant watch. You remember Lincoln's famous *mot* about the impossibility of fooling all of the people all of the time. It does not hold good for the individual who can fool himself to his heart's content all of the time. If necessary, be cruel; use the knife and the cautery to cure the intumescence and moral necrosis which you will feel in the posterior parietal region, in Gall and Spurzheim's centre of self-esteem, where you will find a sore spot after you have made a mistake in diagnosis. It is only by getting your cases grouped in this way that you can make any real progress in your post-collegiate education; only in this way can you gain wisdom with experience. It is a common error to think that the more a doctor sees the greater his experience and the more he knows. No one ever drew a more skilful distinction than Cowper in his oft-quoted lines, which I am never tired of repeating in a medical audience:

> Knowledge and wisdom, far from being one,
> Have oft-times no connexion. Knowledge dwells
> In heads replete with thoughts of other men;
> Wisdom in minds attentive to their own.
> Knowledge is proud that he has learned so much;
> Wisdom is humble that he knows no more.

What we call sense or wisdom is knowledge, ready for use, made effective, and bears the same relation to knowledge itself that bread does to wheat. The full

knowledge of the parts of a steam engine and the theory of its action may be possessed by a man who could not be trusted to pull the lever to its throttle. It is only by collecting data and using them that you can get sense. One of the most delightful sayings of antiquity is the remark of Heraclitus upon his predecessors—that they had much knowledge, but no sense—which indicates that the noble old Ephesian had a keen appreciation of their difference; and the distinction, too, is well drawn by Tennyson in the oft-quoted line:

Knowledge comes, but Wisdom lingers.

Of the three well-stocked rooms which it should be the ambition of every young doctor to have in his house, the library, the laboratory, and the nursery—books, balances, and bairns—as he may not achieve all three, I would urge him to start at any rate with the books and the balances. A good weekly and a good monthly journal to begin with, and read them. Then, for a systematic course of study, supplement your college textbooks with the larger systems—Allbutt or Nothnagel—a system of surgery, and, as your practice increases, make a habit of buying a few special monographs every year. Read with two objects: first, to acquaint yourself with the current knowledge on a subject and the steps by which it has been reached; and secondly, and more important, read to understand and analyse your cases. To this line of work we should direct the attention of the student before he leaves the medical school, pointing in specific cases just where the best articles are to be found, sending him to the Index Catalogue—that marvellous storehouse, every page of which is interesting and the very titles instructive. Early learn to appreciate the differences between the descriptions of disease and the manifesta-

tions of that disease in an individual—the difference between the composite portrait and one of the component pictures. By exercise of a little judgement you can collect at moderate cost a good working library. Try, in the waiting years, to get a clear idea of the history of medicine. Read Foster's *Lectures on the History of Physiology*, Baas's *History of Medicine*. Get the 'Masters of Medicine' Series, and subscribe to the *Library and Historical Journal*[1].

Every day do some reading or work apart from your profession. I fully realize, no one more so, how absorbing is the profession of medicine; how applicable to it is what Michelangelo says, 'There are sciences which demand the whole of a man, without leaving the least portion of his spirit free for other distractions'; but you will be a better man and not a worse practitioner for an avocation. I care not what it may be; gardening or farming, literature or history or bibliography, any one of which will bring you into contact with books. (I wish that time permitted me to speak of the other two rooms which are really of equal importance with the library, but which are more difficult to equip, though of co-ordinate value in the education of the head, the heart, and the hand.) The third essential for the practitioner as a student is the quinquennial brain-dusting, and this will often seem to him the hardest task to carry out. Every fifth year, back to the hospital, back to the laboratory, for renovation, rehabilitation, rejuvenation, reintegration, resuscitation, &c. Do not forget to take the notebooks with you, or the sheets, in three separate bundles, to work over. From the very start begin to save for the trip. Deny yourself all luxuries for it; shut up the room you meant for the nursery,—have the

[1] Brooklyn. Price, $2 per annum.

definite determination to get your education thoroughly well started; if you are successful you may, perhaps, have enough saved at the end of three years to spend six weeks in special study; or in five years you may be able to spend six months. Hearken not to the voice of old 'Dr. Hayseed,' who tells you it will ruin your prospects, and that he 'never heard of such a thing' as a young man, not yet five years in practice, taking three months' holiday. To him it seems preposterous. Watch him wince when you say it is a speculation in the only gold mine in which the physician should invest —*Grey Cortex!* What about the wife and babies, if you have them? Leave them! Heavy as are your responsibilities to those nearest and dearest, they are outweighed by the responsibilities to yourself, to the profession, and to the public. Like Isaphaena, the story of whose husband—ardent, earnest soul, peace to his ashes!—I have told in the little sketch of *An Alabama Student*, your wife will be glad to bear her share in the sacrifice you make.

With good health and good habits the end of the second lustrum should find you thoroughly established —all three rooms well furnished, a good stable, a good garden, no mining stock, but a life insurance, and, perhaps, a mortgage or two on neighbouring farms. Year by year you have dealt honestly with yourself; you have put faithfully the notes of each case into their proper places, and you will be gratified to find that, though the doubtful cases and mistakes still make a rather formidable pile, it has grown relatively smaller. You literally 'own' the country-side, as the expression is. All the serious and dubious cases come to you, and you have been so honest in the frank acknowledgement of your own mistakes, and so charitable in the contem-

plation of theirs, that neighbouring doctors, old and young, are glad to seek your advice. The work, which has been very heavy, is now lightened by a good assistant, one of your own students, who becomes in a year or so your partner. This is not an overdrawn picture, and it is one which may be seen in many places, except, I am sorry to say, in the particular as to the partner. This is the type of man we need in the country districts and the smaller towns. He is not a whit too good to look after the sick, not a whit too highly educated—impossible! And with an optimistic temperament and a good digestion he is the very best product of our profession, and may do more to stop quackery and humbuggery, inside and outside of the ranks, than could a dozen prosecuting county attorneys. Nay, more! such a doctor may be a daily benediction in the community—a strong, sensible, whole-souled man, living a life often of great self-denial, always of tender sympathy, worried neither by the vagaries of the well nor by the testy waywardness of the sick, and to him, if to any, may come (even when he knows it not) the true spiritual blessing—that 'blessing which maketh rich and addeth no sorrow.'

The danger in such a man's life comes with prosperity. He is safe in the hard-working day, when he is climbing the hill, but once success is reached, with it come the temptations to which many succumb. Politics has been the ruin of many country doctors, and often of the very best, of just such a good fellow as he of whom I have been speaking. He is popular; he has a little money; and he, if anybody, can save the seat for the party! When the committee leaves you, take the offer under consideration, and if in the ten or twelve years you have kept on intimate terms with

those friends of your student days, Montaigne and Plutarch, you will know what answer to return. If you live in a large town, resist the temptation to open a sanatorium. It is not the work for a general practitioner, and there are risks that you may sacrifice your independence and much else besides. And, thirdly, resist the temptation to move into a larger place. In a good agricultural district, or in a small town, if you handle your resources aright, taking good care of your education, of your habits, and of your money, and devoting part of your energies to the support of the societies, &c., you may reach a position in the community of which any man may be proud. There are country practitioners among my friends with whom I would rather change places than with any in our ranks, men whose stability of character and devotion to duty make one proud of the profession.

Curiously enough, the student-practitioner may find studiousness to be a stumbling-block in his career. A bookish man may never succeed; deep-versed in books, he may not be able to use his knowledge to practical effect; or, more likely, his failure is not because he has studied books much, but because he has not studied men more. He has never got over that shyness, that diffidence, against which I have warned you. I have known instances in which this malady was incurable; in others I have known a cure effected not by the public, but by the man's professional brethren, who, appreciating his work, have insisted upon utilizing his mental treasures. It is very hard to carry student habits into a large city practice; only zeal, a fiery passion, keeps the flame alive, smothered as it is so apt to be by the dust and ashes of the daily routine. A man may be a good student who reads only the

book of nature. Such a one[1] I remember in the early days of my residence in Montreal—a man whose devotion to patients and whose kindness and skill quickly brought him an enormous practice. Reading in his carriage and by lamplight at Lucina's bedside, he was able to keep well informed; but he had an insatiable desire to know the true inwardness of a disease, and it was in this way I came into contact with him. Hard pushed day and night, yet he was never too busy to spend a couple of hours with me searching for data which had not been forthcoming during life, or helping to unravel the mysteries of a new disease, such as pernicious anaemia.

III

The *student-specialist* has to walk warily, as with two advantages there are two great dangers against which he has constantly to be on guard. In the bewildering complexity of modern medicine it is a relief to limit the work of a life to a comparatively narrow field which can be thoroughly tilled. To many men there is a feeling of great satisfaction in the mastery of a small department, particularly one in which technical skill is required. How much we have benefited from this concentration of effort in dermatology, laryngology, ophthalmology, and in gynecology! Then, as a rule, the specialist is a free man, with leisure or, at any rate, with some leisure; not the slave of the public, with the incessant demands upon him of the general practitioner. He may live a more rational life, and has time to cultivate his mind, and he is able to devote himself to public interests and to the welfare of his professional

[1] The late John Bell.

brethren, on whose suffrages he so largely depends. How much we are indebted in the larger cities to the disinterested labours of this favoured class, the records of our libraries and medical societies bear witness. The dangers do not come to the strong man in a speciality, but to the weak brother who seeks in it an easier field in which specious garrulity and mechanical dexterity may take the place of solid knowledge. All goes well when the man is larger than his speciality and controls it, but when the speciality runs away with the man there is disaster, and a topsy-turvy condition which, in every branch, has done incalculable injury. Next to the danger from small men is the serious risk of the loss of perspective in prolonged and concentrated effort in a narrow field. Against this there is but one safeguard—the cultivation of the sciences upon which the speciality is based. The student-specialist may have a wide vision—no student wider—if he gets away from the mechanical side of the art, and keeps in touch with the physiology and pathology upon which his art depends. More than any other of us, he needs the lessons of the laboratory, and wide contact with men in other departments may serve to correct the inevitable tendency to a narrow and perverted vision, in which the life of the ant-hill is mistaken for the world at large.

Of the *student-teacher* every faculty affords examples in varying degrees. It goes without saying that no man can teach successfully who is not at the same time a student. Routine, killing routine, saps the vitality of many who start with high aims, and who, for years, strive with all their energies against the degeneration which it is so prone to entail. In the smaller schools isolation, the absence of congenial

spirits working at the same subject, favours stagnation, and after a few years the fires of early enthusiasm no longer glow in the perfunctory lectures. In many teachers the ever-increasing demands of practice leave less and less time for study, and a first-class man may lose touch with his subject through no fault of his own, but through an entanglement in outside affairs which he cannot control, yet deeply regrets. To his five natural senses the student-teacher must add two more—the sense of responsibility and the sense of proportion. Most of us start with a highly developed sense of the importance of the work, and with a desire to live up to the responsibilities entrusted to us. Punctuality, the class first, always and at all times; the best that a man has in him, nothing less; the best the profession has on the subject, nothing less; fresh energies and enthusiasm in dealing with dry details; animated, unselfish devotion to all alike; tender consideration for his assistants—these are some of the fruits of a keen sense of responsibility in a good teacher. The sense of proportion is not so easy to acquire, and much depends on the training and on the natural disposition. There are men who never possess it; to others it seems to come naturally. In the most careful ones it needs constant cultivation—*nothing over-much* should be the motto of every teacher. In my early days I came under the influence of an ideal student-teacher, the late Palmer Howard, of Montreal. If you ask what manner of man he was, read Matthew Arnold's noble tribute to his father in his well-known poem, *Rugby Chapel*. When young, Dr. Howard had chosen a path—'path to a clear-purposed goal,' and he pursued it with unswerving devotion. With him the study and the teaching of medicine were an absorbing

passion, the ardour of which neither the incessant and ever-increasing demands upon his time nor the growing years could quench. When I first, as a senior student, came into intimate contact with him in the summer of 1871, the problem of tuberculosis was under discussion, stirred up by the epoch-making work of Villemin and the radical views of Niemeyer. Every lung lesion at the Montreal General Hospital had to be shown to him, and I got my first-hand introduction to Laënnec, to Graves, and to Stokes, and became familiar with their works. No matter what the hour, and it usually was after 10 p.m., I was welcome with my bag, and if Wilks and Moxon, Virchow, or Rokitanski gave us no help, there were the Transactions of the Pathological Society and the big *Dictionnaire* of Dechambre. An ideal teacher because a student, ever alert to the new problems, an indomitable energy enabled him in the midst of an exacting practice to maintain an ardent enthusiasm, still to keep bright the fires which he had lighted in his youth. Since those days I have seen many teachers, and I have had many colleagues, but I have never known one in whom were more happily combined a stern sense of duty with the mental freshness of youth.

But as I speak, from out the memory of the past there rises before me a shadowy group, a long line of students whom I have taught and loved, and who have died prematurely—mentally, morally, or bodily. To the successful we are all willing and anxious to bring the tribute of praise, but none so poor to give recognition to the failures. From one cause or another, perhaps because, when not absorbed in the present, my thoughts are chiefly in the past, I have cherished the memory of many young men whom I have loved

and lost. *Io victis!* let us sometimes sing of the vanquished. Let us sometimes think of those who have fallen in the battle of life, who have striven and failed, who have failed even without the strife. How many have I lost from the student band by mental death, and from so many causes—some stillborn from college, others dead within the first year of infantile marasmus, while mental rickets, teething, tabes, and fits have carried off many of the most promising minds! From improper feeding within the first five fateful years scurvy and rickets head the mental mortality bills of students. To the teacher-nurse it is a sore disappointment to find at the end of ten years so few minds with the full stature, of which the early days gave promise. Still, so widespread is mental death that we scarcely comment upon it in our friends. The real tragedy is the moral death which, in different forms, overtakes so many good fellows who fall away from the pure, honourable, and righteous service of Minerva into the idolatry of Bacchus, of Venus, or of Circe. Against the background of the past these tragedies stand out, lurid and dark, and as the names and faces of my old boys recur (some of them my special pride), I shudder to think of the blighted hopes and wrecked lives, and I force my memory back to those happy days when they were as you are now, joyous and free from care, and I think of them on the benches, in the laboratories, and in the wards—and there I leave them. Less painful to dwell upon, though associated with a more poignant grief, is the fate of those whom physical death has snatched away in the bud or blossom of the student life. These are among the tender memories of the teacher's life, of which he does not often care to speak, feeling with Longfellow that the surest pledge of their remembrance

is 'the silent homage of thoughts unspoken.' As I look back it seems now as if the best of us had died, that the brightest and the keenest had been taken, and the more commonplace among us had been spared. An old mother, a devoted sister, a loving brother, in some cases a broken-hearted wife, still pay the tribute of tears for the untimely ending of their high hopes, and in loving remembrance I would mingle mine with theirs. What a loss to our profession have been the deaths of such true disciples as Zimmerman, of Toronto; of Jack Cline and of R. L. MacDonnell, of Montreal; of Fred Packard and of Kirkbride, of Philadelphia; of Livingood, of Lazear, of Oppenheimer, and of Oechsner, in Baltimore—cut off with their leaves still in the green, to the inconsolable grief of their friends!

To each one of you the practice of medicine will be very much as you make it—to one a worry, a care, a perpetual annoyance; to another, a daily joy and a life of as much happiness and usefulness as can well fall to the lot of man. In the student spirit you can best fulfil the high mission of our noble calling—in his *humility*, conscious of weakness, while seeking strength; in his *confidence*, knowing the power, while recognizing the limitations of his art; in his *pride* in the glorious heritage from which the greatest gifts to man have been derived; and in his sure and certain hope that the future holds for us still richer blessings than the past.