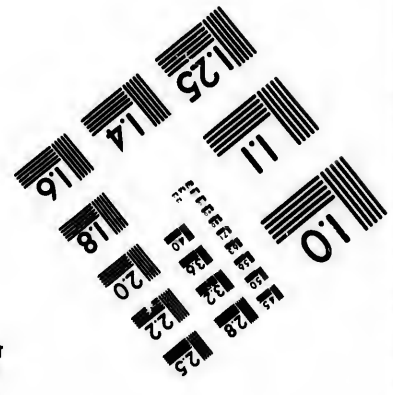
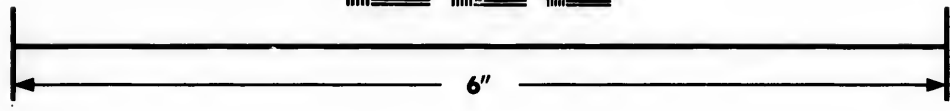
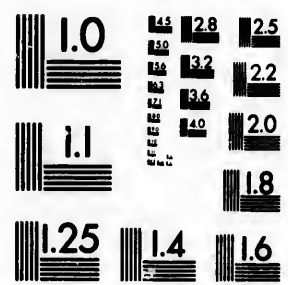


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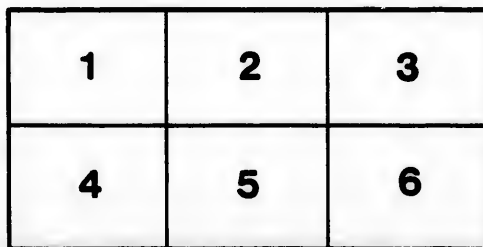
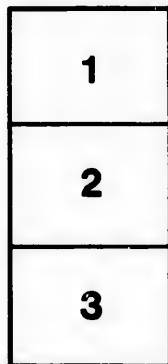
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(Reprinted from the Montreal Medical Journal, November, 1896.)

## THE RESPONSIBILITY OF THE STUDENT OF MEDICINE.

BY

H. A. LAFLEUR, B.A., M.D.,

Assistant Professor of Medicine and Associate Professor of Clinical Medicine  
McGill University, Assistant Physician to the Montreal General Hospital.

Another academic year has rolled by, and to-day marks the official opening of the sixty-fourth session of the Faculty of Medicine. I say official advisedly, for at least three-fourths of your number have already some time since girded your loins after the summer siesta and started in earnest on the steep and rugged path which leads to the tree of knowledge and, let us hope also the fountain of wisdom. I trust, nevertheless, that a few of the things I wish to say to you may not savor too much of, as the French say, *après dîner mou-tarde*—and that my remarks may be of assistance both to those who are on the road and to those whose journey begins to-day. If one may judge from one's personal experience, a word of advice comes not amiss in such circumstances. I can recollect distinctly the feeling of helplessness, of vague groping and uncertainty, that came over me at certain periods of my medical course—particularly the introduction to a new and unfamiliar class of studies—and many times the advice of a senior college mate or, better still, of one of my teachers served to dispel doubt and bring light out of darkness.

In the first place, on behalf of my colleagues in the faculty, I extend to you all a cordial welcome, none the less cordial because official and collective. You obtain thereby your place in the sphere of intellectual effort in which we are all units striving toward a common goal—the furtherance of the science and art of medicine, and co-incidentally of medical education.

Those of you who are entering these class-rooms for the first time may possibly not have realized the responsibilities—immediate and prospective, and they are not light ones—which such a step entails. The immediate responsibility is that of working earnestly to the best of your ability during the four years of your course, acquiring such knowledge of, and skill in your profession as will make you a credit to the institution that has given you your training and conferred upon you a widely-known and respected degree. The prospective responsibility is the one contained in the oath exacted from you on your graduation-day—to practice medicine: *Caute, caste et probe*. Of the latter I shall say nothing. It shall be the duty of one of my

colleagues, ripened in years and wisdom, to enforce its solemn simplicity upon a chosen few of you at the end of this session.

It is of the first of these responsibilities that I wish to speak. You are beginning, or have begun, the study of medicine presumably with the view of eventually practising that profession. For prudential reasons—to take the lowest motive first—it behooves you from the first to make the very best use of your time. Competition—sharp, not to say at times unscrupulous—which has made mercantile pursuits so uncertain, and in many cases but barely remunerative—has of late years rapidly invaded the professional classes, and medicine in this respect has suffered perhaps more than any other profession.

The absence of state-endowed and state-supported institutions, in which a very high standard of education might be maintained irrespective of revenue, the absence or laxity of state regulation, of private educational corporations, the curse of sectionalism and individualism so characteristic of the western hemisphere, and the apathy of the public in the matter of education in general and medical education in particular—all these factors have tended to produce a mushroom-growth of so-called medical schools (fortunately be it said more among our neighbours than in our own country) from which a yearly brood of doctors of medicine has been delivered upon the unsuspecting public. To many people one degree is as good as another, and it will take them some time, to their cost, and perhaps to yours, before they appreciate the difference between a graduate of a reputable school and one of the mushroom variety. Moreover, your training will have taught you to despise methods which your competitor makes no scruple of using—and in this respect you will be at a disadvantage. But granted that in the long run you have little to fear from competition with the ill-trained physician, is it not a fact that even from the best medical schools the supply of graduates is at least equal to the demand? Ponder this well—if there be any of you who may be tempted to think that a degree is to be won by a minimum of work, and that the profession of medicine is an easy and genteel way of earning a living. For such there is no place in a medical school of the highest standing.

But there is a higher motive, which the majority, if not all of you, will recognize and accept. By working to the best of your ability you are in reality aiding, no matter how little, the cause of higher education in medicine. Wherever you go, in whatever place you cast your lot, you will bear the hall-mark of your Alma Mater, and should be the living embodiment to your surroundings of the high professional ideal which this school has ever aimed at maintaining. This

you cannot be unless you make up your mind from the first to utilize to the fullest extent the great advantages that are offered to you throughout your collegiate course. Moreover, by so doing you will materially lighten the labours of your teachers, and stimulate them to yet greater efforts on behalf of yourselves and those who shall follow in your footsteps.

The highest motive is one that should form part of your very nature, if you are rightly constituted. It is the moral obligation to do your duty by your fellow-creatures. No student can conscientiously receive the degree of doctor of medicine who knows and feels that he has not caused to profit the talent that was entrusted to him. Heaven knows, gentlemen, when you leave these halls—it has been the experience of your predecessors and teachers—your store of knowledge will be scanty enough, even if you have diligently employed your time—a fraction with a very small numerator, and it is with this fraction that you must enter upon your life work—the understanding and care of all the ills the flesh is heir to.

If a due sense of responsibility is incumbent upon you, the majority, who are to become practitioners of medicine, it is all the more imperative for you, the minority—and I trust it may be a large one—who are even now cherishing the idea of yourselves becoming the teachers of a future generation of students, or investigators in one of the many unexplored regions of medical science. The teacher or investigator to be successful must have received the very best possible training, a deep and solid foundation on which to rear a no less solid and harmonious superstructure. In the case of either, failure means not only personal loss from wasted opportunities, but incalculable and progressively increasing harm to others through educational incapacity or lack of "geist," and the publication of immature or faulty researches—for there is none like your practising physician or surgeon to accept without a murmur of dissent the dicta of those who speak *ex cathedra*, be it from the professor's chair or the holy of holies of the laboratory.

How shall you make the best use of your time?—avoiding both Charybdis and Scylla; the whirlpool of overwork, perplexity and ill-health; and the dangerous rocks of temptation, neglect of work and failure. To a great degree this problem has been solved for you in the published time-table of the curriculum. There are, at fixed hours, arranged with due regard to your physical welfare, lectures, clinics and demonstrations to attend, which will fairly well fill the hours of the day. With regard to these let your chief virtues be punctuality and attention, for your own sake and that of your teachers and

fellow-students. The aim of these various exercises is to teach you to *observe* and to *think*. And here let me repeat the oft-given but ever necessary advice concerning note-taking. Your teachers profess to be exponents, not oracles, and do not expect you to make a stenographic report of their dissertations—a lecture is not to be considered in the light of an exercise in dictation. Note, if you will, the salient points, and at the close of the day you may fill in the minor points at your leisure; it is a good mental exercise and serves to cultivate the memory. Avoid mere memorizing; it is a debasing exercise and will inevitably lead you to the vain and idolatrous worship of facts. Facts are necessary, and those which cannot be established by personal observation must of course be obtained from books, demonstrations or lectures; but they are at best means to an end, and of little value apart from the inferences to which they lead and the principles of which they form the basis.

Might I not add a word of warning to the teachers themselves? We are perhaps addicted to laying too much stress on the practical side of the subjects we teach, assimilating our work more or less to the style of the modern text-book, which is too often a mere agglomeration of facts, true and well-established if you will for the time being, but devoid of that stimulus to thought which the scholarly and philosophical presentation of the growth and development of principles would afford. This defect I freely admit to be more common in the treatment of the final branches of the curriculum than in that of the primary. The ideal series of didactic lectures would be one that dealt with groups of allied morbid conditions, rather than individual ones, showing their fundamental relations, tracing the gradual steps by which the members composing them became differentiated, and outlining the trend of modern thought in the solution of the still vexed questions with which they abound. In other words, the tendency of such lectures would be toward synthesis rather than toward analysis. The penchant of the present period of medicine is towards refinement in subtle distinctions and the investigation of minutiae, which too often result in loss of mental perspective and the consequent inability to grasp broad principles. The type of the ideal lecture I have referred to is well illustrated by the admirable lectures on "Convulsive Seizures," delivered a few years ago by the eminent London neurologist, Hughlings Jackson, in which he develops the theory of functional levels in the central nervous system. Such lectures not only give one a more accurate conception of individual morbid conditions, but throw a new light on familiar phenomena, and open up new avenues of thought and speculation.



Clinics and clinical lectures on the other hand are, or should be, intensely objective, their aim being to cultivate the faculty of observation. It is remarkable in what an embryonic state this faculty exists in the average student. Things that "jump to the eyes," as the French say, very commonly pass unobserved, or in transit between the retina and the higher visual centres undergo such refraction as to result in very imperfect images. Indeed a large part of the clinical teacher's work consists in correcting visual, auditory and tactile impressions in the student, and as this work of educating the senses must of necessity be done individually for each student, it follows that a large proportion of time must be devoted to this part of your technical training. It requires also individual work, *bon-vouloir* and patience on the part of both teacher and pupil. Nothing but the most earnest co-operation on your part can make our teaching successful, for indifference in the taught represses the zeal of the teacher, and freezes the genial current of his soul.

There are in this city ample, very ample, facilities for the acquirement of a good clinical training in large and well-appointed hospitals. It is safe to say that in no other city on this continent is the student in medicine afforded such opportunities of seeing disease from a close and intimate point of view, and of coming into personal contact with the sick. As senior students you are practically allowed the freedom of the wards during certain hours of the day, and all of you have at one time or another a certain number of cases to report on and observe from day to day. In the out-patients department you have daily opportunities of studying the minor complaints, both medical and surgical, which will form the largest part of your future practice, and of familiarising yourselves by repeated examinations, with normal physical signs. Finally, there are the special departments and the maternity hospital, in which systematic instruction is given to groups of students in rotation.

These are great and exceptional advantages, and if you are inclined to think that they are but your due, remember that in many hospitals not only is the opportunity of personally examining and reporting cases absolutely unknown—I had almost said undreamed-of—but access to the wards is only possible in the company of the chief of service or his interne, and the student must rest satisfied with studying disease from the lofty point of view of the amphitheatre. This school can point with pardonable pride to the fact that it was among the first in America to inaugurate thorough and systematic bedside teaching in the hospital, and to insist on personal and individual clinical work. And here I may be pardoned for entering upon a

digression. The system of teaching I have referred to is commonly known as the "Edinburgh method." In reality, it is the German method—though it eventually came into force in the famous Scotch school. Graves, in the introduction to his "System of Clinical Medicine" (published in 1843), speaking of methods of clinical teaching, draws attention to the lack of personal work on the part of the student in the medical schools of Great Britain, and contrasts these with the schools of France and Germany. In France the system adopted was certainly an improvement on the methods in vogue in his own country, but there were still many defects. For the German method, however, he has nothing but praise, and describes somewhat in detail the manner in which the "praktikant" is required to examine, report and even prescribe for cases in the hospital, undergoing on all these points a strict cross-examination by the physician in the presence of his fellow-students.

To return to the theme; I wish to insist on the point that in clinical work you are to be actors, not passive spectators or supernumeraries on the scene. Avoid perfunctory performance of your hospital duties, and when you are reporting a case do so with as much zeal as if it were your first patient in practice. There is no better training than that obtained by thorough and independent examination at the bedside, controlled subsequently by your teacher's criticism. The eliciting of information, the careful sifting and arrangement of the patient's statements—one of the most difficult arts to acquire, and not unlike the cross-examination of a legal witness; the thorough and systematic physical examination—which tests your knowledge of normal signs and appearances; and finally the process of reasoning called into play in making a diagnosis from the data obtained—all these are mental exercises of great value, and require the exercise of your best intellectual powers. The committing of the whole to paper, in the shape of an orderly and well-written report—so seldom met with—cultivates precision of thought and diction—"writing maketh an exact man."

To make rational inferences from correct observations is in a few words the gist of the problem involved in the diagnosis of disease. At times this is an easy matter, given an accurate history and unequivocal signs of disease: at others, the indications are so scanty or obscure as to tax the ablest clinician's powers of observation and reasoning. You may have wondered how in certain cases a correct diagnosis has been reached from isolated and seemingly trivial signs. There is, however, nothing marvellous in this, it is not intuition, nor is there any mystery about it—nothing more than the facility

acquired by long experience based on observation, of forging the missing links in the chain of evidence. You remember Voltaire's story of how Zadig was enabled to give an accurate description of the queen's strayed spaniel and of the runaway steed of the king, without ever having seen either of these animals, but by observing the character of their footprints, and the marks they or their trappings had left on the trees and stones of the path by which they had made their escape. In many instances this is the method by which the diagnostician arrives at his conclusions—the "method of Zadig," or in more modern phraseology, the method of Sherlock Holmes.

There is another aspect to an hospital training—its humanizing influence. It is not possible that two or more years spent in daily association with the sick and the injured should not have some influence for good on your character, and develop in you, at least, the quality of mercy which is not strained. There are foibles to be overlooked and idiosyncrasies to be understood and respected; there are sullen patients and garrulous ones, melancholic patients and cheerful ones, and tearful ones—most trying of all—to each and all of whom you must accommodate yourselves. Kindness, gentleness and courtesy—with firmness in the background for emergencies—are never out of place, and should be meted out in the same measure to No. 15, Ward X., as to Mr. Dividends of Capital street.

I need hardly insist on the importance of faithful attendance in the various laboratories—university and hospital—including the dissecting-room. The hope and the promise of the medicine of the future lie in the extension of laboratory teaching, not only from the educationist's point of view, but from the stand-point of the diagnostician and the therapist. The discovery of the diphtheria antitoxin is still fresh in our minds—a discovery, it cannot be too often repeated, entirely the product of the bacteriological laboratory. Again, in all the clinical laboratories of the great medical centres of the world, investigations are being carried on which are yearly adding to the more intimate knowledge of disease, and more or less directly to further advances in therapeutics. Notably of quite recent interest is the discovery by Widal, that in the action of human blood serum on cultures of the bacillus of typhoid fever, we possess a reliable means of establishing or denying the presence of that disease in the individual from whom the serum has been obtained,—a most valuable addition to the hitherto accepted criteria in obscure cases.

From the purely educational point of view a thorough training in laboratory work is not less to be recommended. For a clear *exposé* of this aspect of the question, and of the value of the ex-

perimental method in medical education, I must refer you to the interesting address delivered three years ago, on an occasion similar to the present one, by one of the members of this Faculty.<sup>1</sup> But "the head and the hoof" (to use an expression of Kipling) of the argument in favour of the educational value of laboratory work is to be found, just as in the analogous case of individual clinical work, in the fact that such work teaches how to observe and to think correctly.

I have outlined somewhat sketchily the programme of your studies as laid down in the curriculum—what may be called the fixtures of the medical course. There remains a considerable portion of time which is not officially provided for. It may be asked how, in view of the amount of intellectual pabulum you are daily required to ingest and digest, the sorely taxed brain can possibly be stimulated to further effort. This is a matter that must be left to the individual worker, and each one must be a law unto himself, remembering the adage—*il ne faut pas forcer son talent*. It is to be assumed that a portion of this time is to be devoted to independent study, and this usually takes the form of reading. If done at fixed hours and not in a desultory way, this may be productive of much good. The object of such reading should be in the first place to revise the work of the day and crystallize the knowledge acquired. This the excellent text-books in every department of your work should enable you to do without much expenditure of mental energy. The student of even average ability should find no difficulty in keeping up with the daily work in reading if he bears in mind two cardinal points—to have regular hours and to refrain from memorizing. For the advanced student, who is supposed to have already an elementary knowledge of the subjects he is studying, and possesses or has acquired facility and despatch in his work, there are at his disposal in the library of the faculty, numerous books of reference with which an instructive hour may be spent, comparing the opinions of the masters in our profession. I would dissuade you entirely from devoting much time to the perusal of current medical literature. It is safe to say—and it is a humiliating confession to make—that fully nine-tenths of the material published in the medical press of this country, and perhaps of others, is worthless from an educational point of view—not to say from any point of view,—and you have neither the time nor the mental perspective required to sift the wheat from the chaff. With the student perhaps even more than with the busy practitioner it is "*omne ignotum pro mirifico*." Far better, if you

<sup>1</sup> The Place of Chemistry In a Medical Education, by R. F. Ruttan, M.D., *Montreal Medical Journal*, November, 1863.

want something a little out of the way of routine work, are the essays of Holmes and of Austin Flint, and many others equally refreshing and instructive.

Finally, to those who perchance may still have leisure—though that is barely credible—I would say, dip a little into the history of medicine. What can be more interesting than to try to appreciate the genius and sound common-sense of Hippocrates, to trace the gradual growth of modern ideas from the fantastic superstitions and grotesque practices of the Middle Ages, to realise the condition of mind of those who propounded the "vitalistic," the "Brunonian," the "inflammatory" and other equally extraordinary and exclusive theories of disease; or again, to read the lives of the great masters of the profession—Vesalius, Ambroise Paré, Harvey, Sydenham, Boerhaave, Laënnec, Jenner and many others equally distinguished, ancient and modern? At the risk of being called a medical Torquemada, I would suggest as the next addition to the curriculum of studies, a course of lectures on the history of medicine. I firmly believe that the extra labour entailed upon the student, would be amply compensated by the result—the cultivation of the philosophical spirit, the stimulation of a deeper interest in the fundamental discoveries in medicine, and a proper appreciation of the genius of the pioneers in our art, coupled with a due spirit of humility and modesty with respect to our own efforts.

We are only too apt to take for granted as elementary truths, discoveries that in years gone by were the battle ground of the fiercest controversies, and to think that the present period of medical science is the only one that can lay claim to the gratitude of suffering humanity. In the introduction to his "Grundriss der Geschichte der Medicin," Baas emphasises as follows the value of the study of the history of medicine: "An acquaintance with the history of his science is, however, especially indispensable to the practical physician, if he would thoroughly comprehend and penetrate the secrets of his profession. To him, indeed, it is the bright and polar star, since undoubtedly it alone can teach him the principles of a medical practice independent of the currents, the faith and the superstition of the present. Moreover, it offers him as scientific gain, thorough knowledge of the past, the measure for a just and well-founded criticism of the doings of his own time, places in his hand the thread by which he unites past conditions and efforts with those of the present, and sets before him the mirror in which he may observe and compare the past and the present, in order to draw therefrom well-grounded conclusions for the future. An acquaint-

" tance with the views and knowledge of epochs already submerged in  
 " the shoreless ocean of time, frees the mind from the fetters and  
 " currents of the day, with its often repressive restraint, widens the  
 " horizon for a glance into the past, and an insight into the present  
 " of human activity, deepens the view for a comprehension of the  
 " ideas which guided the earlier and the more recent physicians, and  
 " gives, on the other hand, to our daily professional labour a higher  
 " consecration, by inserting it as a most useful and necessary link in  
 " the chain of development of past and future humanity. The signifi-  
 " cance of the work of the individual, and his true value and true  
 " position with regard to all humanity, are first revealed to us clearly  
 " in and through history." (Translation by H. E. Handerson.)

The tasks that are to be performed require, as I have said, the exer-  
 cise of the best intellectual powers. What are the factors which may  
 make you good students? I cannot do better than to quote some-  
 what *in extenso* from a masterly address, delivered some time ago to  
 the medical students of the University of Minnesota, by one who is  
 well-known to most of you—at least by name: <sup>1</sup>

" In the first place acquire early the *Art of Detachment*, by which  
 " I mean the faculty of isolating yourselves from the pursuits and  
 " pleasures incident to youth. By nature man is the incarnation of  
 " idleness, which quality alone, amid the ruined remnants of Edenic  
 " characters, remains in all its primitive intensity. Occasionally we  
 " do find an individual who takes to toil as others to pleasure, but the  
 " majority of us have to wrestle hard with the original Adam, and  
 " find it no easy matter to scorn delights and live laborious days. Of  
 " special importance is this gift to those of you who reside for the  
 " first time in a large city, the many attractions of which offer a  
 " serious obstacle to its acquisition. The discipline necessary to secure  
 " this art brings in its train habits of self-control and forms a valu-  
 " able introduction to the sterner duties of life . . . Ask of any  
 " active business man or a leader in a profession the secret which  
 " enables him to accomplish much work, and he will reply in one word,  
 " *system*; or as I shall term it the *Virtue of Method*, the harness with-  
 " out which only the horses of genius travel. There are two aspects  
 " of this subject; the first relates to the orderly arrangement of your  
 " work, which is to some extent enforced by the roster of demonstra-  
 " tions and lectures, but this you would do well to supplement in  
 " private by a schedule in which each hour finds its allotted duty.  
 " Thus faithfully followed day by day system may become at last  
 " engrained in the most shiftless nature, and at the end of a semester

<sup>1</sup> Teacher and Student. By Wm. Osler, M.D., &c., &c.

" a youth of moderate ability may find himself far in advance of the  
 " student who works spasmodically and trusts to *cramming*. . . .  
 " And thirdly add to the Virtue of Method, the *Quality of Thorough-*  
 " *ness*, an element of such importance that I had thought of making  
 " it the only subject of my remarks. Unfortunately, in the present  
 " arrangement of the curriculum, few of you as students can hope to  
 " obtain more than a measure of it, but all can learn its value now,  
 " and ultimately with patience become living examples of its benefit.  
 " Let me tell you briefly what it means. A knowledge of the funda-  
 " mental sciences upon which our art is based—chemistry, anatomy,  
 " and physiology—not a smattering, but a full and deep acquaintance,  
 " not with all the facts, that is impossible, but with the great principles  
 " based upon them. You should, as students, become familiar with  
 " the methods by which advances in knowledge are made, and in the  
 " laboratory see clearly the paths the great masters have trodden,  
 " though you yourselves cannot walk therein. With a good prelimin-  
 " ary training and a due apportioning of time you can reach in these  
 " three essential studies a degree of accuracy which is the true prepara-  
 " tion for your life duties. It means such a knowledge of diseases and  
 " of the emergencies of life and of the means for their alleviation, that  
 " you are safe and trustworthy guides for your fellow-men. . . .  
 " The Art of Detachment, the Virtue of Method, and the Quality of  
 " Thoroughness may make you students, in the true sense of the word,  
 " successful practitioners, or even great investigators; but your char-  
 " acters may still lack that which can alone give permanence to  
 " powers—the *Grace of Humility*. . . . In these days of aggres-  
 " sive self-assertion, when the stress of competition is so keen, and the  
 " desire to make the most of oneself so widespread, it may seem a  
 " little old-fashioned to preach the necessity of this virtue, but I insist  
 " for its own sake, and for the sake of what it brings, that a due  
 " humility should take the place of honour on the list. For its own  
 " sake, since with it comes not only a reverence for truth, but also a  
 " proper estimation of the difficulties encountered in our search for it.  
 " More perhaps than any other professional man, the doctor has a  
 " curious—shall I say morbid?—sensitiveness to (what he regards)  
 " personal error. In a way this is right; but it is often accompanied  
 " by a *cocksureness* of opinion (to use a Johnsonian word) which, if  
 " encouraged, leads to so lively a conceit that the mere suggestion of  
 " mistake under any circumstances is regarded as a reflection on his  
 " honour, a reflection equally resented whether of lay or of professional  
 " origin. Start out with the conviction that absolute truth is hard to  
 " reach in matters relating to our fellow-creatures, healthy or diseased,



“ that slips in observation are inevitable even with the best trained faculties, that errors in judgment must occur in the practice of an Art which is largely the balancing of probabilities ;—start, I say, with this attitude of mind, and mistakes will be acknowledged and regretted ; but instead of a slow process of self-deception, with ever-increasing inability to recognize truth, you will draw from your errors the very lessons which may enable you to avoid their repetition. . . . The truth that lowliness is young ambition’s ladder is hard to grasp, and when accepted, harder to maintain. It is so difficult to be still amidst bustle, to be quiet amidst noise ; yet, “ es bildet ein Talent sich in der Stille ” alone, in the calm life necessary to continuous work for a high purpose. The spirit abroad at present in this country, is not favourable to this Teutonic view, which galls the quick apprehension and dampens the enthusiasm of the young American. All the same it is true, and irksome at first though the discipline may be, there will come a time when the very fetters in which you chafed shall be a strong defence and your chains a robe of glory.”

But you will be inclined to say, “ We have had enough of the Gospel of Work, it is time we had a little of the Gospel of Play,” and this brings me naturally to discuss the more material side of your existence as students of medicine. At the risk of being very prosaic, let me give you a few words of advice as to the manner of life that is most conducive to the welfare of a student. If you wish to do good work you must have appropriate environment, you must live with a certain degree of comfort and take a reasonable amount of physical exercise. In the much-to-be-regretted absence of a University residence, in which the conditions of existence would be arranged on a proper hygienic basis, you must necessarily fall back on the boarding-house. There are model boarding-houses—and there are others. This city may fairly lay claim to having a “ Latin Quarter ” of its own, but while this is not far behind its Parisian analogue in sordidness, it lacks all of the picturesqueness and attractiveness of the latter. It is poor economy, for the sake of a small saving, to confine oneself in a small not over-clean and dingy room in a dark and dismal street, when relative comfort at least is to be obtained by a trifling extra expenditure.

Murger’s “ Bohemia ” is a most interesting study of one phase of student-life, but his students did no work to speak of, and their sole object seems to have been to amuse themselves in their own peculiar way, and as regards the material needs of life to confine themselves to what he aptly calls “ the strictly superfluous.” The main desiderata in a student’s working more or less, in canonical sufficient cubic space



and plenty of fresh air. I would not insist on such apparently obvious matters, did I not know from personal experience with students—and by no means medical students alone—that such considerations of health are constantly neglected. Many a brain-racking headache owes its origin to no other cause, and “faces” which are presumably “sicklied o’er with the pale cast of thought,” may find their pallor changed to the rosy hue of health by a simple change of residence. It must not be forgotten, too, that living in crowded quarters and a vitiated atmosphere exposes—or rather predisposes—the individual to the approach of one or the other of the various infections, and especially to the modern “great plague”—tuberculosis. As regards exercise, the motto *Suum cuique* is the only one that is applicable. Suffice it to say that in some form it is essential to the maintenance of perfect health, and there are so many ways in which it may be taken that there is only the embarrassment of choice. I need only repeat here the warning against excessive athleticism, which not only defeats its own object, but often works irreparable mischief in its victim.

I cannot conclude without drawing your attention to a subject which has always interested me very much, and which many, I am sure, will agree with me in considering of prime importance—I refer to the relation of general culture to a medical education.

Bacon said somewhere that “the physician should begin with philosophy, the philosopher end with medicine;” and there is much truth in this statement, if we take the term philosophy in the largest sense—the spirit of philosophical enquiry and the philosophical method of thought. Judged by this criterion and weighed in this scale, I fear that the majority of us would be found sadly wanting. And yet this spirit and this method form the very ground work of that other method, the experimental method, which is the one on which the science of medicine is, or should be, based, and which is indispensable to further progress in that science. All experiment is futile, unless it be productive of conclusions, and conclusions are apt to be erroneous unless they are drawn by a mind trained in the methods of induction. Current and standard medical literature are full of examples of erroneous conclusions, drawn from apparently correctly observed facts and carefully performed experiments. Such a training implies a more or less extended period of study prior to the inception of purely professional work, and the only means at present known of obtaining this training are supplied by the higher institutions of learning, those that afford the opportunity of acquiring what is generally known as a liberal education. Unfortunately but

few of those who enter the field of medical study in this country come provided with the required intellectual baggage. Such is the hurry, or necessity, in the Western Hemisphere of starting on the actual bread-winning path of life, that few will, or think they can, devote the time necessary to the acquirement of a purely intellectual training. In Europe the conditions are vastly different, for a University education is considered as the necessary, and, in most countries, as the obligatory preliminary to a professional training. Take France as an illustration; in that country no individual may aspire to the degree of doctor of medicine, unless he have previously obtained the baccalaureate degree in arts or in science, and in the other states the requirements are on a similar basis. Contrast this with the condition of affairs in America, where the Johns Hopkins University is the only one requiring from the candidate for a medical education a degree of Bachelor of Arts or Bachelor of Science.

Apart from the advantage accruing to the individual from a general mental training acquired before initiation to technical studies, there is also a manifest advantage to the school itself. Many of the subjects of study which are, owing to present necessities, included in the curriculum of the medical school, are at the same time taught in the academic department—notably elementary botany, chemistry, physics, and even physiology. Were the medical student enabled to show a previous acquaintance with the rudiments at least of these branches of study, the time now employed in elementary work might be employed profitably in obtaining a knowledge of the deeper problems, and especially those having a direct bearing on human life.

The University, of which this Faculty is one of the component parts, has at all times recognized the force of the arguments advanced in favour of preliminary training as an introduction to professional studies, and has at last been able to perfect a plan which meets at least some of the requirements of the case. According to this plan a student may proceed in the course of six years to the double degree of Bachelor of Arts and Doctor of Medicine, obtaining at the same time a general intellectual culture and the special professional training. This is manifestly a step in the right direction, and while it is in reality only a compromise with the ideal, it is one for which all—teachers and students alike—should be devoutly thankful.

It is the earnest wish of the members of this faculty, and of their collaborators in the other faculties of the university, that year by year an ever greater number of the candidates for the study of medicine may learn to appreciate the value of a liberal education, and to utilize

to the fullest extent the great advantages—the price of much labour and thought—that are now offered to them

But in any case, waiving the purely professional conception of general culture, is not a liberal education a thing to be aspired to for its own sake, for the satisfaction of the inner man—that consciousness of our own acquirements and powers which follows us through life, whether we will it or no? The leisure hours of an active professional career will be made more enjoyable from a capacity to return to intellectual pursuits, the taste for which has been carefully fostered during an earlier period of life, and should we seek companionship and intercourse with our fellow-men, we shall not experience that feeling of isolation which comes from exclusive engrossment in one's own particular sphere of mental activity, however meritorious it may be.

