The new departure in medical teaching : a lecture delivered at the beginning of the course on pathology and practice in the University of Michigan, October 1st, 1877 / by A.B. Palmer.

THE

NEW DEPARTURE

IN

MEDICAL TEACHING.

A LECTURE

DELIVERED AT THE BEGINNING OF THE COURSE ON
PATHOLOGY AND PRACTICE OF MEDICINE IN
THE UNIVERSITY OF MICHIGAN,
OCTOBER 1ST, 1877,

BY

A. B. PALMER, A. M., M. D.,

Professor of Pathology and the Practice of Medicine.

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UNIVERSITY OF MICHIGAN,
ANN ARBOR, October 9th, 1877.

To Prof. A. B. Palmer, A. M., M. D.,

Dean of the Dept. of Medicine and Surgery, U. of M.:

DEAR SIR,—At a meeting of the Senior Lyceum of the Department of Medicine and Surgery, Oct. 4th, 1877, a committee was appointed and instructed to request you to allow the Society to publish the introductory lecture of the course of 1877-'78, delivered by yourself Oct. 1st, 1877.

Respectfully,

Committee: T. H. WILCOX.
T. C. CHURCH.
G. H. WILSON.

UNIVERSITY OF MICHIGAN,
October 10th, 1877.

To T. H. Wilcox, T. C. Church, and G. H. Wilson:

GENTLEMEN,—Your note requesting on behalf of the Senior Lyceum the privilege of publishing the lecture to which you refer, is received. In justice to the subject and myself, I should say that it was hastily prepared, and solely with a view to the occasion, without the remotest idea of its being published; but if its publication will gratify those to whom it was addressed; and if it is thought it will in any degree promote the cause of Higher Medical Education—a subject now occupying to a greater extent than ever before the professional and public mind of the country—I am willing to place the manuscript at your disposal.

Very truly yours,

A. B. PALMER.

HIGHER MEDICAL EDUCATION.

GENTLEMEN:

In behalf of the authorities of the University, of my colleagues and myself, I welcome you to the instruction in the Department of Medicine and Surgery in the University of Michigan.

I am particularly gratified to see so many present at the opening of the 28th annual session, when such changes have taken place, in the extension of the term to nine months, and in the thoroughness of the course, as it was thought would materially diminish the number of students.

That some, who would have been here if the term had not been lengthened, have gone to schools with much shorter and more imperfect courses of instruction, is very probable; but it is hoped—it is now certain—that their number has been more than made up by those who more fully appreciate thoroughness, and who are unwilling to assume the obligations and duties of a physician—to take upon themselves these deep responsibilities of health and disease, of comfort and suffering, and of life and death, without as full a mastering of the subjects as is possible in the three short years of study required by all respectable colleges for graduation in medicine.

Gentlemen, you are not here simply to be told in an empirical way that certain medicines are believed to be good for certain diseases, and that a woman in child-bed is to be managed so and so, and that a broken leg is to be treated in this or that manner. Neither have you come here to be taught any particular "*System*"—to be given a set of rules or precepts, based on some *one dogma*, with pretensions to universal application. This narrow view, this baseless conception, and often *base* pretension, the different irregular medical sects endeavor to impress on the minds

of those ignorant of true medical science. But I repeat, you have not come here to be taught any such *system.* You are not to be taught *allopathy* or *antipathy*, or *homœopathy.* We are not to talk to you in the language of the ignorant Thompson, whose doctrines once spread all over this country, that "*Heat* is Life and *Cold* is Death," and that the only way to cure disease is to apply and keep up the heat; nor, in the words of the more intelligent but similarly erring Priessnitz, that the only cure for disease is in the use of water—that this is the universal remedy. We are not to dwell upon the maxim, whether it be true or not, that diseases are always cured by contraries or differences; much less are we to repeat parrot-like the old exploded dogma derived from the dark ages of speculative medicine, and revived, though extended, by Hahnemann—the exclusive doctrine of *similia similibus curanter*—that is, that disease can only be cured by *like* remedies. You are not to be told that Brandreth's Pills or Ayers' Pectoral, or Kennedy's Discovery, or somebody's alterative, will cure all the diseases to which men are subject, on some universal purifying principle. If we were to teach any of these *systems*, or advocate any of these humbugs; if we were to announce any of these follies as the staple of our teaching, any one member of our Faculty could go through with a whole course of such instructions in a very few weeks, or even a few days.

But we are to do very different work from all this. We are here to teach the *Science of Nature*; you are here to *study Nature scientifically*—to get some insight into those laws which govern the universe, by studying the facts of Nature, and particularly are you to study the facts pertaining to living-beings, and more especially those belonging to *human* beings, so as to be able to combat disease, or, in better words, to modify and correct those wrong actions of the body which constitute the process of disease—so to study these principles as to be able to prevent accidents, and remove their effects, and to thereby mitigate human suffering and prolong human life.

Now this knowledge of nature and its application to the objects of our profession, is certainly of vast extent; and nothing which has reference to this, our present state of being, can be of more importance. This must be seen at a glance; and at the first blush, every *conscientious* man *must feel* that his great object

here should be to obtain *thorough knowledge*, and not to *speedily get through*.

It is not only unwise as operating injuriously upon the future standing and success of the student, but it is positively *wicked;* it is reckless indifference to all human interests for one to seek a medical school through which he can pass with the least knowledge and in the shortest time, rather than the one which will afford him the greatest advantages, and give the greatest amount of knowledge.

Our course has been extended to twice the length of the majority of the Medical Schools in this country, and to a period one-third longer than heretofore occupied in this school.

Is there reason for this change?

In the early history of medical education in this country, the student read medical books in the office of his preceptor for a certain length of time, and was then licensed to practice by the judges of county courts.

All who know how easy it is for clerks in lawyers' offices to be admitted to the *bar*, can form some idea of the protection to the community from ignorance on the part of these court licensed practitioners, which such a system afforded. To remedy these defects, Medical Schools were established—not with the expectation or for the purpose of giving a full medical education—but for the purpose of supplementing the instruction given in the doctor's office, affording some demonstrations in Chemistry, Anatomy and Surgery, that could not so well be given or afforded in the private office, and as a means of testing and certifying to the student's knowledge by a proper examination, and the granting of a diploma. For this purpose of merely supplementing the study in an office and substituting an examination and the granting of a diploma by competent medical men for the license of a county court; four months were thought to be sufficient, and therefore the term of instruction in the colleges was made four months long.

The first Medical School in this country was that of the University of Pennsylvania. This was established in Philadelphia, in 1765, in the Colonial days—112 years ago; and in an American Register, published in 1773, the requirements for admission to and graduation in the school are described. The appli-

cant for admission, unless a Bachelor of Arts, was obliged to pass a preliminary examination. This requirement, during the disturbed state of the Revolution, was abolished, and as other Medical Schools came into existence, this preliminary examination, the omission of which occurred as a necessity of the times, was never practiced by any of the schools until established, but without a high standard it must be confessed, by the University of Michigan.

At the early period referred to, the University of Pennsylvania conferred two degrees—Bachelor of Medicine, M. B., and Doctor of Medicine, M. D. The first was granted after an apprenticeship and a course of study in a practitioner's office, and one course in the schools; while the second degree—the M. D. was not given until three years after M. B. was conferred, and then upon the presentation and defence in public of a Latin thesis on some medical subject.

Whatever may be thought of the importance of a knowledge of Latin, the ability to write and defend a thesis in that language, indicates an amount of scholarship greater than is now demanded by any college in America for the degree of Doctor of Medicine.

Although the graduates of the present day may possess better medical knowledge than those of one hundred years ago, they have certainly not more scholarly cultivation, and their superior medical knowledge, is due not to more study but to the vast improvements in medical science. In fact, the amount of *learning* at the present day demanded for a degree in medicine is not equal to that of one hundred years ago. It cannot be denied that by persistent private study of books, and by observing practice with an intelligent preceptor under favorable circumstances, a fair medical education may in time be obtained without the aid of Medical Schools. But the difficulties of obtaining such an education without the aid of schools are very great, and very few not attending such schools have ever been successful.

As time went on and other Medical Schools came into existence, the office-reading was less and less depended upon, and the work of instruction was more and more entrusted to the schools. The busy practitioner could not afford to spend his time in teaching one or two students, and few were fully qualified to give the most efficient instruction, and almost none

had the means of proper illustrations. Now, and for years past, almost the entire work of teaching medicine devolves upon the schools, and private teaching is almost entirely neglected.

Besides this change in teaching, in the rapid advancement of science, in the immense multiplication of the facts of Chemistry, in the new revelations of the microscope, in the creation of modern pathology, in the recognition of new diseases, in the new appliances and processes—medical, surgical, and obstetrical,—in the vast increase, in short, of the whole field of medical knowledge, the time required to obtain that knowledge must have proportionately increased; and yet, most strange to say, such has been the force of precedent, such the desire on the part of students to get through with the requirements made upon them quickly, and such the rivalry of private schools for obtaining students and their fees, that the same four months' courses have, for the most part, been continued, and the higher degree of M. D. has been the only one sought for.

Twenty-eight years ago the University of Michigan established six months' courses of lectures, but her example was not followed, until Harvard College very recently came forward and instituted a nine months' course—charging for it, however, $200,—and absolutely requiring only one such course; though, in common with all other respectable schools, demanding a certificate of three years' study of medicine, however much or little that certificate may mean, in order that the student may present himself for graduation.

A few years ago the Chicago Medical College (not *Rush* Medical College—that school still adheres to the old method and the short course) adopted a graded course, but continued their required annual session for the usual shorter period; and now the venerable University of Pennsylvania has taken a step in advance, establishing a graded and extended course; and the Johns Hopkins Medical School of Baltimore is to be conducted upon the same advanced plan. A determination for advancement in medical education has taken possession of the professional and public mind, and though all the changes proposed may not prove the wisest possible, the outcome will be a higher medical education for our country. The necessity for reform is too obvious and imperative to be much longer resisted.

As already stated this University has extended its course of instruction to nine months, has provided a gradation of studies, continuing three years, and requires attendance upon at least two courses for graduation ; though by our original endowment and the liberality of the State, we are enabled to afford the instruction on such terms as those of fair abilities and close and persevering application can comply with, though possessed of moderate means.

If one hundred years ago—indeed, if thirty years ago, four months' time was required to go over the curriculum of medical studies in a school, the multiplication of the knowledge now constituting a respectable medical education, must require more than twice that time; and if, at the beginning, when schools were intended simply to supplement the office study, four months were required, certainly now when they are depended upon for giving a full education, the time of continuing should be more than doubled.

When both of these conditions concur, when medical knowledge has so much increased and the schools are expected to furnish it all, can we regard the term of nine months too long, or the taking even three such courses too much ? Should we not at least demand two full courses ? Those of you who have already attended the instruction here know this is right—and those who have just commenced, will be as fully convinced of it before this term is closed.

We shall continue to have four didactic lectures a day, as hitherto, besides work in the dissecting-room, the Chemical Laboratory and the hospital, and in addition to these, as there will be more time in nine months than in six, there will be very important work in the Physiological and Pathological Laboratory, in becoming familiar with the use of the microscope and other aids to knowledge, and in studying the minute structures and more intimate workings of tissues and functions, normal and abnormal. Those who take, as we strongly advise, the three years' course in the College, will not be expected to attend all the didactic lectures that are in course of delivery at any one time, and will therefore have full opportunity for the laboratory work.

One of the leading characteristics of our American people is a restless desire to *go ahead*—to pass rapidly from one condition to another—to be impatient of delays and of minute de-

tails. Young America gets into pantaloons and boots sooner than any other urchin. The nursery in this country is occupied by children only during the earliest infancy. As soon as long dresses are dispensed with, the child's abiding place is in the library and the parlor. In fact, the period of childhood, with its simplicity and innocence, has become almost extinct. The infant of days assumes the thoughts, the language and the manners of adult life.

In the old world, no one assumes to practice a trade without an apprenticeship of years. In this country apprenticeships are abolished, the raw boy expecting wages from the beginning.

In England, the law student resides in chambers, reading law, or pretending to do so, for years before he is called to the bar. In this country, he often calls at the "bar" at a very early period, and frequently practices in the courts before his beard has grown.

This national peculiarity has its advantages and its disadvantages. While it is an evidence of energy and enterprise, and while those of real ability and industry among us often develop, by after study, into men of great power and professional efficiency, it leads to superficiality and inferiority with others, and where skill and success follow, they are often achieved after many blunders and failures. In medicine, this may be at the expense of precious lives.

It is, however, true that as native energy, force and adaptability are more important than culture or training, on the whole our mechanics, our artisans and our professional men compare favorably with those of any other nation.

Since the Philadelphia Centennial Exposition, the whole world has become convinced that Americans do work *faster*, if not better than any other people.

An extraordinary pamphlet has lately been published by M. Bally, the proprietor of a great manufacturing establishment in Switzerland, in which he warns Europeans of the dangers of American competition in the production of all manufactured articles of commerce; and he is amazed to see *how much*, in a business point of view, *is made of a man* in this country—how much a single man does—how he turns his hand to several things at once—and, in short, how much more he can do than one of the slower human machines of the old world.

There can be no doubt that we have a *faster* way of doing things in this country than in Europe—have greater adaptability, and we can probably accomplish more in a given time in studying medicine than the average European. Our methods are different. We have a way of seizing upon the more essential things —are more practical—and hence the body of American physicians will compare favorably as *practical* men with any others. But still our students go out from our Medical Colleges with far less theoretical and scientific knowledge than our brethren across the water. Our deficiencies are made up after leaving college, in some cases, by the reading of more books and journals than foreign practicioners read, but that reading is mostly of what is called *practical* matter; while with the masses of the profession solid scientific attainments are never reached. The sharp, shrewd Yankee doctor, manages the common cases of disease very well—often with much skill—but still, when thrown out of his routine by obscure or unusual cases, he may be sadly at sea without the rudder of profound science, and is often drifted far away from the right course.

The accumulation of scientific knowledge is not like the acquisition and practice of a mere trade. *Time* and *study* are required to obtain the foundation of facts upon which high skill is built.

A sharp Yankee may pick up a trade—may hit upon a lucky mechanical invention; but he cannot thus "pick up" the learning of the profession of medicine. Learning has no royal road, and is not obtained by any artful trick or lucky hit. I repeat, it requires *time* and *study*. There is not so much difference between an American and an Englishman or a German, that the latter should require three or four times as much time and study as the former to obtain the same amount of knowledge. In fact, in accumulating profound, minute and exact knowledge, the *German* especially, is the American's superior. The practical application of that knowledge is another thing; and in this practical application consists the American's advantage.

Give the American the thorough study and training of the Englishman or the German, and he will outstrip him in the race for professional excellence and success.

It may interest you to know how much time and study are required in Great Britain and on the Continent for one to obtain admission to the medical profession. The present hour will not allow me to give an account of all the different classes and grades of the medical practitioners in Great Britain or on the Continent of Europe, but the time of medical study even for the lowest grade of practitioners is from four to six years or more. Nowhere and for none will less than four years of study suffice.

The lectures in all, or nearly all, the medical schools continue a whole university year, or nine months, and at least three or four years' attendance upon them—the different courses in succession—is required.

Throughout Germany, France, Switzerland, Russia, Denmark, Norway and Sweden, says the venerable Prof. Geo. B. Wood, "Medical education is carried on essentially in the schools. These are never independent establishments," as many are with us, gotten up by enterprising physicians, self-appointed, to make reputation and money—"but are always connected with some great general school or University, from which the honors emanate."

The incidental advantages connected with the associations of a large University, such as we have here, are not to be ignored or lightly esteemed; and a recent writer in a popular journal has shown that the advantages of large schools of whatever kind over small ones, are decided. Large schools have the power to be better than small ones. Their resources are greater, they can command better accommodations, better and more complete means of illustration, and very naturally they secure a better class of teachers.

Even if larger salaries are not paid, there is an attraction and stimulation in numbers to be taught. One does not like to spend his force upon a few, and he is excited to do his best before many, and having experience with large numbers, he knows better what is best for the average and for each. By these influences upon the teachers, the pupils are of course benefited.

There can be no doubt that the intellectual stimulus to the pupil is greater in a large school than in a small one. He is car-

ried on by the momentum of the general movement, and cannot become listless and sluggish amidst so much activity.

Besides all this, in a large school the student is much more likely to ascertain his comparative value, and find his proper level. The isolated student, without an opportunity of comparison, almost necessarily has a wrong or defective estimate of his ability; and when there are but few with whom he can compare himself, he is almost sure to either over-estimate or under-estimate his talents, according as he may be with an inferior or superior class of men.

When jostled with large numbers, however *smart* he may consider himself, or may really be, he will find some, at least, his equals—probably a number who may be regarded his superiors—and thus he will have an inconvenient amount of conceit taken out of him. And however inferior in his modesty and diffidence he may regard himself, he will find those weaker and stupider than he is, or at least on a par with him, and will say to himself, "If they can get on, so can I," and will thus be encouraged to effort and perseverance. In short, he will be stimulated by those above him in ability, and encouraged by those beneath him; while there will be the excitement of emulation by association with his equals in the contest for success. It is said that large bodies move slowly. This is certainly sometimes the case; but they always move with great momentum, and large bodies of men in association carry the weak and timid with them.

These are some of the advantages of being associated with a large number of persons in the same pursuit, while the more or less intimate association with hundreds of those in other pursuits, as is the case in a large University like this, expands one's conceptions of men and things, and makes one acquainted with the world in which he is to play a part.

In Scotland and Ireland, as on the Continent of Europe, the principal medical schools are in connection with Universities, but in England they are generally away from the Universities, and in connection with large hospitals.

The Universities have a few medical professors—they would not be *Universities* unless all sciences were recognized in them—but they have very few pupils, though the Universities alone

have power of granting degrees. The students, for the most part, receive their instruction at the hospital schools, but are examined by the Universities if taking degrees. The first degree is *Bachelor of Medicine*, as was the case at first in this country. To become a *Doctor of Medicine* from an English University, three years' additional study and attendance in hospitals after the Bachelor's degree, and a very rigid examination are required. A very small proportion of English practitioners take either of the medical degrees, most of them having only what is called an "Apothecaries' License," granted after an examination by what is called Apothecaries' Hall, which is an examining body. But even this license, which makes them general practitioners, is granted not till after four years' attendance at a medical school, and after serving some years as an apothecary's apprentice. Another body—the College of Surgeons—grants licenses to students as surgeons, but after a similar course of study at a medical school. There is still another licensing body—the College of Physicians. Their standard of admission to their fraternity is much higher than in the other bodies, and their members are "Consulting Physicians," receiving patients at their houses, from whom, at least, a guinea fee is always expected, and these men visit patients only in consultation with apothecaries or surgeons, the latter classes being called "general practitioners." Only the wealthy can afford the continued services of a *physician*—the general practitioners doing the great mass of ordinary professional business—the physician being called only in severe or obstinate cases, or among the wealthy. These latter would then call in an apothecary to watch the case, to act in sudden emergencies, and see to the carrying out of the treatment prescribed.

From this very hasty and imperfect account of medical education and practice abroad, you will see how much less time and study is required for entering the profession in this country than anywhere else; and this, together with the absolute needs of the case, should reconcile you to our nine months' course: should, indeed, make you unwilling to take up with anything less than this.

It is regarded as a disgrace to this country by the wisest and best of her medical men, that the general standard of literary and professional education among physicians is so low; and it is

only the necessities of a new country, and the absence of laws prohibiting totally unqualified persons from practicing the profession, that in any degree excuse our common custom.

But though our country is expanding with such wonderful rapidity—though, in the life time of a single man, the States of our Union have increased from 13 to 38, many of the new ones being larger, singly, than the whole original 13—though our country is so great in extent of territory that 59 such countries as England, Scotland and Ireland combined, would be required to equal it—and though in the same length of time its population has increased from 3,000,000 to 45,000,000, yet its general educational advantages have increased almost proportionably, and there is not certainly at the present time such a scarcity of medical men that it is necessary to thrust a swarm of half-educated, unfledged doctors upon a suffering community. Indeed, it is thought by many that, by the multiplication of medical schools and the ease with which students are graduated, there is an over-production of medical men; and it is certainly true that we have a larger proportion of medical practitioners, compared with the population, than any country of Europe. In Great Britain and the principal countries on the Continent there is one medical practitioner to from 1,500 to 2,000 people, while in this country there is one to every 618 of the population. The more scattered condition of our people requires a greater number of physicians to attend them, and a larger proportion are able to pay for professional services than among the denser and poorer people of the old world; but still we have more medical practitioners of one kind and another than can be well supported, and our need is of better doctors rather than more of them. The people are demanding better educated men, and in the future more than in the past, the men of higher qualifications will not only command the greater respect, but will achieve the greater success.

These facts and considerations have determined those who govern this institution to extend and make more thorough our course, thus furnishing the means of a higher medical education. These sentiments induced the Faculty to ask for the extension of the term, prompted the Legislature to provide the means, and the Board of Regents to establish it.

But these are no new views nor opinions confined to this locality. Thirty years ago an active agitation on this subject was commenced, led by Dr. N. S. Davis, of Chicago, then of New York, an agitation which resulted in the formation of the American Medical Association. The original object in the establishment of that body was, by concert of action, and by the influence and anthority it might acquire, to secure improvement in medical education.

Strenuous efforts have been made at nearly every meeting of that Association, ever since, to secure this object—to induce the schools to extend their courses of instruction and raise their standards of requirements; and the whole profession of the country has been committed over and over again, so far as it could be by the action of its chosen representatives, to radical improvements—to the requirement of preliminary examinations before admission to the schools—to the longer and more thorough courses of lectures—to frequent examinations—to repeated written exercises, and to higher standards in the final examinations.

To give you specimens of the general expressions on this subject, I will read from the nineteenth volume of "Transactions of the A. M. Association, in the proceedings of the meeting at Washington in 1868. A few sentences from the President's Address and from the Report of the Chairman of the Committee on "Medical Education" will give an idea of the opinions entertained. Prof. Gross of Philadelphia was President that year, and I had the honor of being Chairman of the Committee on Medical Education.

Dr. Gross says:

"The subject of medical education continues to be one of deep and absorbing interest with this Association. Although it was one of the principal objects for which the Association was established, it was never brought under its notice in so clear and tangible a form as at our last meeting, in consequence of the action of the Teachers' Convention, which digested a plan of college requirement and instruction which, it was gratifying to see, met with the unanimous approval of this body, and which only awaits, as far as its practical application is concerned, the sanction of the principal schools of the country for its general adoption. It will be a happy day both for medical science and humanity when this important point shall be attained. No men are more conscious of the present imperfect system of education than the teachers themselves, and none more anxious for the introduction and general adoption of the contemplated reform."

"It is a subject of the deepest humiliation that, except in a few honorable instances, no material changes have taken place in the curriculum of instruction in our schools within the last half century."

"The schools are afraid to elevate the standard of requirements without the general co-operation of the colleges, lest they should suffer in the number of their pupils and the amounts of their emoluments."

"Practitioner and professor, private preceptor and college teacher, are, in the existing state of this grave and important question, equally at fault and equally censurable. Every one may justly exclaim, in the language of the devout publican, 'God have mercy upon me, a sinner.'"

In the Report of Medical Education it is stated that:

"Although the subject of medical education, the securing of uniformity to its methods and requirements, and of concerted action for its improvement, called into existence this Association, and reports and discussions upon it have constituted an important part of its yearly transactions; although in these reports and discussions almost every aspect of the subject has been presented, and every argument and persuasion exhausted; although all must have felt the importance, for the honor and success of the profession, that in the general advancement of education and knowledge among all classes, a corresponding advancement should be made in the education of medical men; although none could fail to perceive that, in the recent vast enlargement of the field of medical science, an increase of time must be required for properly traversing it; although our national pride has been appealed to by comparing the lengthened and extended courses of instruction in European countries with the short and meagre courses in our own; yet no standard of preliminary education has been established; the length and number of the terms of instruction in our medical colleges have not been materially increased, the curriculum of subjects has not generally been enlarged, no order in the succession of studies has been secured, no more written exercises have been generally required to test educational and logical qualifications, final examinations are scarcely more rigid; and, in short, though there are exceptions in some cases and in some particulars, the *status* of medical education among us, so far as the positive requirements of the schools are concerned, has scarcely advanced since all this agitation commenced; certainly no advancement has been made commensurate with the repeated recommendations put forth, or the imperative demands of the case."

"If the mass of the schools hesitate, or refuse to combine in the onward movement, which of them will first step forward, and appealing to the interests of students to be benefited, and the liberality of an enlightened profession to be elevated, secure to itself a richly deserved success and a halo of imperishable honor?"

Speaking of clinical and hospital teaching, the committee further said:

"Its importance in a complete course of instruction can scarcely be exaggerated; but we are very strongly impressed with the absurdity of regarding that as proper clinical instruction which is received by students during a four or five months' course, going over the entire range of elementary medicine. Clinical medicine cannot be properly pursued while the student is listening to from five to seven diadactic lectures a day, upon as many different subjects. Besides, attending to clinical matters in a hospital before the elements of the science are mastered is comparatively fruitless, even were proper time allowed. The common result of much of our clinical instruction is to confuse the student, divert his attention from elementary subjects,

and prevent his becoming thoroughly grounded in them, thus making him a superficial and unscientific practitioner. It is far less dangerous to neglect clinical than elementary matters in a course of medical instruction. The defects of the former may be made up in after life; those of the latter almost never are. An imperfect superstructure may readily be improved; a radically defective foundation is fatal!"

In our extended course more time can be profitably given to clinical teaching, and its importance shows more strongly the necessity of extension of the course.

Harvard first took the step of extending the course to nine months, Michigan University followed on what we regard an improved plan, and the University of Pennsylvania is following in the wake.

It is our desire and intention, under this new departure, to furnish the means for as complete a medical education as can be found in this country, and on such pecuniary terms as can be complied with by those of moderate means. We regard brains as more important than money, and do not believe that ability and character are measured by the purse.

While the system of instruction provided shall not be inferior to any, it shall be superior by far in fullness and in the length of time occupied, to all the schools in this country, save two or three, and we expect that those who come to us with adequate preparation, and who avail themselves of all the privileges offered, will go out with such a medical education as will enable them to take the highest rank in the profession in any community in which they may locate. Our students, in the army during the war, and in civil practice before and since, have ever compared most favorably with the best.

We intend hereafter to send out such as shall have few to compare with them.

The little shadow which the proximity of the infinitesimal concern on the other side of the grounds has cast upon us, is passing away, as the sensible and disinterested men of the profession come to see our true relations to it—our position of uncompromising opposition to its puerilities, and our continued exposures of its absurdities, helping it to show its real character and inherent weakness. And we now feel that sunshine is upon us; and whatever may be the machinations of disappointed enemies, or the efforts of those seeking to build themselves up at

others' expense; or whatever may be the indifference of former friends, if we go straight forward in our course, giving the highest grade of medical education which zeal and industry and our enlarged opportunities will enable us to do, we shall, I cannot doubt, bind to us the students for whom we labor, and shall be sustained by an enlightened and liberal *profession*, and a liberal *State*.

The opinions now expressed in the highest circles of the profession are, that the various States of the Union, following the example of the older countries of Europe, should *sustain and regulate* medical education; requiring by law thorough qualifications in those who assume to practice upon the health and lives of the people; and, as a gratifying fact, we find that one after another of the Western States is falling into the ranks of those demanding educational qualifications of the persons holding themselves out as medical practition

The efforts made in certain quarters to induce our own State to retrace its steps and withdraw its support from medical education, and to cease from providing for its people and the country a *higher grade* of qualifications and a better educated class of medical men, it is hoped may meet with the fate of all efforts in opposition to the intelligence and spirit of the age.

I said in the early part of these remarks, that you are here not to be crammed with any *system*, not to be plied with any speculative theories, not to be taught the dogmatic doctrines of any particular *schools*, not to be taken back into the dark ages of dreamy, conjectural and speculative philosophy, nor to be informed of any universal panaceas; but you are to be taught the facts of Nature, the truths of what we regard a Divine economy, and especially the laws which govern human beings in health and disease. We shall not tell you that we know all the facts and the laws of nature, that we know all that relates to the being and actions of our bodies and minds, that we know all about all diseases—their causes, their essential characters and best remedies. We shall confess our ignorance of many things, shall acknowledge the imperfection of medical science and art, and shall make the prediction, judging from the past, that great changes of views will occur in the future as scientific researches develop new facts; but we shall teach you many facts which are well established, and

shall announce many principles which cannot be controverted. Many facts we shall demonstrate, many principles we shall logically prove; but many opinions we shall express which will not admit of demonstration, and which must be accepted or rejected according to the testimony offered or the probabilities shown.

In thus frankly stating the imperfections of our science, and the uncertainties connected with our professional opinions, we do not admit that our profession occupies a lower place as to certitude than other human affairs; than other subjects with which we, as men and women, have to deal.

Everything pertaining to our poor humanity is imperfect; every department of science and every affair of human life has its uncertainties. Bishop Butler very justly said, that "*probability* is the guide of life."

All who have had experience or observation know the uncertainties, as well as the delays, of the law. Not only are lawyers always contending on opposite sides and juries often disagreeing, but one judge decides a question one way and another, with equal authority, another.

There are, indeed, some uncertainties connected with theological questions, as we find wise and good men widely differing in opinion. On metaphysics and political economy there are as many different opinions as there are writers and thinkers; and in the natural sciences—in geology, botany and zoölogy—there are numerous questions entirely unsettled, and constant changes in theory and opinion are occurring, as new facts come to light.

But in all these departments of knowledge there are many facts and principles, established upon foundations that cannot be removed.

So in Medical Science. It may be more or less imperfect than other sciences, but it shares its imperfections with all things human. It deals with the most intricate problems of nature, and a knowledge of nature's facts and ways is the only sure foundation upon which to build, by observation and experience.

When you are informed by a sage* in the profession, and fully comprehend his meaning—"That there is scarcely anything

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* Dr. Geo. B. Wood.

in nature, having relation with our bodies for good or evil, whether a substance, a process, a mental act or emotion, or even the negation of a positive agency, which may not become a *cause* of disease; that in reference to the *nature* of disease, the most numerous, intricate, and subtle experiments have but opened a prospect here and there into its great mysteries, which have occupied the most profound minds for ages, and given rise to countless disquisitions; that the *symptoms* and *signs* of disease embrace every variety of external aspect and movement exhibited by the sick, every indication offered to the ear, the touch or the eye, of internal change, and every deduction of judgment from whatever source as to the existing condition of the deranged system; that the *effects* of disease are almost as numerous and diversified as the morbid states or processes to which the body is liable, these being often only the results of antecedent morbid states or processes; that in the *treatment* of disease, agencies of the most varied character, including not only all the bodies usually called medicines, but all the influences capable of favorably modifying the systemic actions, are to be employed with variations in degree, mode of preparation, application, and association, as numerous as the diversities of the human constitution in the healthy and morbid state; and that finally in the prevention of disease, it is necessary to bring a knowledge of its causes, and of the influences capable of removing, neutralizing, or resisting their operation, to bear upon our decision in the different cases presented;—when all these facts are considered, I am sure you will agree that the subject of Pathology and the Practice of Medicine alone, offers a scope for all the time, energy, industry and talent you can possibly devote to it,"—and that nine months is not too long a period to traverse this vast field.

Not only must we give attention to the vast accumulations of the more remote past, but we must keep our eyes open to the new facts and principles of the recent, and the passing present.

The importance of a knowledge of these subjects to suffering humanity, I need not further state. The importance of a *thorough* knowledge on your part, to yourselves, to your peace of mind, and to your future standing and success, you will, when you come to practice, if not before, appreciate.

But I have said enough in justification of the extension of

the course of instruction to the full college year of nine months, —enough, indeed, to show that we would not have been justified in allowing it to be shorter.

These considerations of the vastness of the field to be traversed and the importance of the subjects to receive attention, should by no means discourage you, but only stimulate you to diligent efforts. There is to be but one step taken at a time—each hour has but the duty of that hour—and if the duty of each hour is faithfully performed, and each step is taken at its appropriate time, the goal of success, and certainly of duty performed, will be reached.

Those of you who take the full course, will be careful to be in your seats—and each one must occupy his assigned seat—promptly at the hour of lectures.

The Board of Regents are of the opinion that very frequent, indeed, daily markings of absences should be made. It is intended that every absence from a lecture which the student undertakes to attend, and for which he wishes a certificate, will be noted, and must be excused before a full certificate can be given. The work will be quietly and effectually done, and a number on a seat remaining uncovered during a lecture will call for a written and reasonable excuse from the student, in order to secure the removal of the absent-mark.

We do not propose to be unreasonable in this matter, but we propose, in obedience to the governing power of the University, to know who is present and who is absent. It is evidently unjust to give the same certificate of attendance to those who are constantly present, and those who are often absent.

A reasonable excuse will always be accepted. Such excuse should be made in writing, signed by the student, giving always the number of the seat occupied, and dropped in the box on the door of the Faculty Room. The absences will be marked by the number of the seat uncovered, and the number must be given in order to have it excused.

You will all understand the importance—the absolute necessity—of quiet, order, and attention, in the lecture room; and if any student is repeatedly disturbed by the whispering or any improper conduct of his neighbor, it will be his duty to report

the fact to the member of the Faculty in whose room the disturbance occurs, or to the Dean, and the case will receive prompt attention from the Faculty.

With this full understanding in the outset of what is expected, we will commence the work of the session.

Notice will be given from time to time of reviews, examinations, written exercises, hospital attendance, work in the chemical, anatomical and physiological laboratories, and other duties out of regular lecture hours.

And now, with the brightest hopes of a profitable and pleasant session, I again welcome you to these halls.