

STILLÉ (A) *Dr. H. C. Wood,*
With Dr. Stillé's compliments

MEDICAL EDUCATION:
WHAT IT IS, AND WHAT IT MIGHT BE MADE.

AN ADDRESS

BEFORE THE

SOCIETY OF THE ALUMNI

OF THE

MEDICAL DEPARTMENT

OF THE

UNIVERSITY OF PENNSYLVANIA,

AT ITS

Annual Meeting, March 12, 1873.

BY

ALFRED STILLÉ, M.D.

PUBLISHED BY THE SOCIETY.



PHILADELPHIA:
COLLINS, PRINTER, 705 JAYNE STREET.
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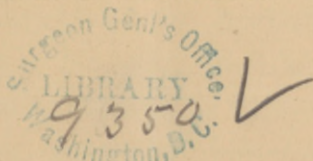
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GENTLEMEN :

The greater number of the audience I have the honor of addressing are newly emancipated from the thralldom of lectures, and naturally will expect that the professorial tone of the speaker shall be laid aside, and that they shall be treated as equal brothers rather than as sons under tutelage. They may very properly hope to be entertained with something different from the discourses that have saturated and satiated them for the last three or four years, and that in this jubilant hour of their new departure they may be spared a disquisition on either the scientific or the clinical aspects of medicine.

Moreover, the Society of the Alumni is not a scientific society. However high it desires to raise the medical profession, it does not seek that object by direct means, but leaves all such matters where they belong, in the hands of the

numerous associations created for the purpose. In the words of its Constitution, "The object of the Society shall be to sustain and advance the interests and influence of the Medical Department of the University of Pennsylvania, by the promotion of sentiments of general brotherhood and amity among the graduates, and by aiding in all efforts to elevate the standard of medical education, and to extend the progress of medical science and art." It is a family gathering of the children and grandchildren of Alma Mater, to do her honor and repay her some portion of the debt which they owe her; to acknowledge her care, affection, guidance, and instruction at a time when they were unable to think for themselves or to find other protection against the errors and temptations of the world; to proclaim their pride in her scientific reputation, in her skilful teaching and her unstained honor; and to inspire one another with zeal to make her future as honorable as her past career, and still more eminent and useful.

If this were merely a social reunion of our medical family we might indulge in pleasant reminiscences, in a little pardonable and harmless laudation of the present state of the Medical Department of the University, and enjoy a complacent outlook on the fresh fields and pastures

new that invite us in the future. Enough of such things might be said to fill the passing hour, and leave us at its end in a state of serene and contented self-admiration. We might parade our domestic gods, and while we burned incense to the Lares and Penates of the University, inhale a little of the intoxicating fumes for our own delectation, and exclaim—"Behold in us the children of heroes who shall be held hereafter to be heroes ourselves!" It is so pleasant to be self-satisfied! It animates the heart with such benevolent sentiments towards our fellow men! For, being filled ourselves, how can we conceive that others may be starving, or imagine that there is any better food than has satisfied our wants?

In this serene and contented frame of mind the natural bitterness of the human heart turns to sweetness; the fires that we burn in our own honor and for our own glory upon the domestic altar, shed their pyrotechnic rosiness even upon our rivals, and we behold in them, also, heroes of successful campaigns in the fields of medicine, prodigies of genius inferior only to ourselves, who have, like us, and with the same weapons and in similar wars, achieved reputations which shall forever be glorious. Our rivals, not to be outdone, asperge us with the

rose-water of flattery and anoint us with unctuous praise, until, at last, we and they and all of us, filled with the intoxicating spirit, join together in a vast society of mutual admiration at whose banquets one toast at least never fails to bring down the house—"Our Noble Selves!"

When we have thus bestowed upon that which stands first in our affection and admiration the homage we conceive to be its due, we naturally widen our embrace until it includes the peculiar medical institutions of the rest of the country. Fired with new zeal as we contemplate its grandeur and their greatness, we burst into a pæan of jubilant praise, soaring as on eagles' wings into the highest regions of hyperbole. There, serenely surveying the universe beyond our boundaries, we regard with a pitying eye those benighted nations among whom the most prodigious labor is essential to the most eminent success; where many indeed are called, but few are chosen, for the highest professional rank; where the State compels all its citizens or subjects to contribute to the fund which will enable the meanest of them all in social station, and the poorest in purse, provided that God has given him genius or talent, to rise to the very highest degrees of knowledge and power. And then we congratulate ourselves on our open gates, our freer roads and easier as-

cent, and the utter unconcern of our government whether those who travel on such roads, are equipped for their journey, or hindered, or helped, or ruined by the way!

Having become somewhat chilled by this involuntary but inevitable comparison, and perhaps a little wearied by our empyrean flight, we descend once more to ordinary levels, and after this manner commune with ourselves: By common consent, patriotism is ranked among the noblest sentiments. To be without it is to be less than man. Yet, when we come to trace its sources, and analyze its nature, it is found to be akin to the love of our native village or of our childhood's home, to the love of family, and the love of self. It is an instinct rather than a sentiment; is fostered by habit and example, and not by reason; and its exaggerations may move to pity, but ought not to provoke censure. Since it belongs to all civilized nations, and even to savage tribes, it can as little be expected that other nations will confess our pre-eminence, as that we shall admit their superiority over ourselves. Like all other instincts, this one has its noble qualities as well as its base influences and tendencies. It is, for example, at the foundation of all national independence and greatness. Egypt, China, Greece, Rome, England, and France, has each in its

turn ruled the world, and maintained the exclusiveness which regarded all other nations as more or less outside barbarians, fit only to be harried in war, or taxed in peace, but beneath consideration as examples to be respected, or as teachers to be obeyed. But in every one of these countries the time arrived when it became evident that there was a larger circle of human sympathy and co-operation than could be bounded by family or nationality; that however salutary the love of self, and home, and friends, and even of country, there are limits beyond which it ceases to be a virtue, begets some of the least amiable qualities, such as conceit and pride, tends to narrow the range of thought and action, to petrify virtues into mere habits, and dwarf the character instead of elevating it.

It is folly for us to compare ourselves with ourselves alone, when commerce and travel oblige us to learn the excellencies and defects of others. To claim exclusive merit when the superiority of other nations is conspicuous all around us, is simply to imitate the idiot who shuts his eyes and denies that the sun is shining. They who flatter us by extolling our methods of professional culture, for example, like all other flatterers, are false. They speak of that which they do not know, and cannot under-

stand. No American of ability and character, unless his education has been altogether exceptional, has spent even a year or two of study in foreign schools without feeling his own inferiority in knowledge, and recognizing the radical defects of the system he has hitherto pursued. The spring-time of his life is passing, the buds of his future hopes are swelling, and he finds that unless he can succeed in enriching the soil from which he draws his intellectual sustenance, he will be in great danger of seeing the fruit which nature fitted him to produce, dwarfed and unsavory instead of being full flavored and nutritious. When he seeks reasons for the shortcomings of our homebred physicians, he is not long in discovering them. He knows that it is impossible to gather grapes from thorns, or figs from thistles, and that what a man sows, that will he also reap; he perceives that it is folly to look for a general high attainment in medical science from a profession, the most of whose members received no scientific training before entering on the study of the most intricate, extensive, and difficult of all the sciences; or for perfection in skill among those whose period of instruction was but three years of nominal, and perhaps less than one year of real and earnest study, of an art in which the

experience of a lifetime must still leave them comparatively unskilled.

He looks around him upon the ranks of the profession at home and abroad, and observes here and there men whose world-wide reputation is founded upon something accomplished by them beyond what others have done; by their skill as practitioners; by their eloquence as teachers; by their power or learning as writers; by their originality as observers and experimenters. On inquiring to what their superiority and their fame is due, he learns the secret of their success. In no single instance does he find that it has been obtained by original genius merely, however elevated or brilliant that may have been; he discovers that every one of these eminent men has been an earnest student, during many years, of the groundwork of his profession, and a toiler in the field he selected for especial culture, concentrating upon it alone the whole of his native energy and acquired knowledge, until it produced fruits which not only deserved but commanded admiration. He has not frittered away his time nor wasted his strength in the vain attempt to grasp more than he could hold, but has deliberately devoted all his energies to making his knowledge and skill, within determinate limits, perfect. In pursuing this object,

also, his motive has not been a sordid one. He has toiled, not for money as his chief end, but for fame. If wealth has flowed in upon him as a consequence of his useful discoveries in the science, or of his valuable improvements in the art of medicine, he has not been apt to feel puffed up by its possession, but has regarded it rather as an incident of that more solid wealth of wisdom which gold cannot purchase, and of which not even the bankruptcy of nations can rob him. But riches are not commonly the reward of the highest attainments in medicine, or in any other scientific pursuit. Our travellers abroad are surprised to find how simple in their habits, how frugal in their expenses, how modest in their demeanor, are many of the men whom they have been accustomed to think of as kings and princes in the intellectual world, and whose judgments and precepts actually control the opinions and the acts of thousands in every civilized nation.

These results are the flower and the fruit of a civilization which has been growing, through many vicissitudes, for thousands of years, and similar productions are not to be looked for from a comparatively youthful civilization like our own. The expectation that communities, in which the standard of education is relatively

low, however generally that education may be enjoyed, should adopt a high grade of general or professional study, is quite as chimerical as to expect that nations who have had neither instruction nor experience in self-government should establish and maintain republican institutions. All the world knows the bloody and disastrous ending of attempts to do so. We cannot expect gardens to bloom and harvests to thrive upon the sands of the sea-shore.

We boast of being "the fastest nation in all creation," and although the vaunt may not be gainsayed, we should not forget the adage, "The more haste the worse speed." The country is vast, its energy prodigious, and its achievements are equally so. Yet, if you look back at the steps that it has taken, you will observe from what rude beginnings, and by what gradual progress we have reached our present position in material things. The hut of rough boards that sheltered the solitary pioneer upon the prairie, or in the recesses of the forest, has been followed by a decent farm-house; the farm-house by a village, the village by a town, the town by a city. In many a city, in the very oldest of them all, perhaps, may be found relics of the primitive dwellings of our great-grandfathers not altogether out of sight of the brick mansions of our fathers,

and of the marble palaces in which the luxury and wealth of the present generation reside. Have we made a corresponding progress in the development of intellectual wealth? It will hardly be affirmed that we have; nor is it singular that we have not. In the natural order of things the material has always preceded the spiritual. Yet, when we examine the seething mass of humanity that peoples the United States, we cannot fail to observe that centres of intellectual crystallization have sprung up within it, which tend to grow year by year in an increasing ratio. But all of these centres are formed by men who owe their acquirements either to a prolonged residence abroad, or to an earnest and successful culture of foreign science, literature, and art. Let us understand that it is no disparagement of our national credit to recognize the necessity of going to school to foreign masters. In doing so, we are but repeating and renewing the process by which knowledge has been diffused from the beginning of the world. What were the Greeks until Egypt taught them letters and science? Mere barbarians. What were the Romans before they imported the arts from Greece? Or the French before Italian culture polished them? Or the English until the Norman conquest civilized

them? A purely indigenous literature or science is a thing as unknown to history as an original language, as impossible as a living being without progenitors. Are we at once so ignorant and stupid, or so in love with ignorance, as to expect to perform a miracle, and build up a science and an art upon foundations exclusively our own?

In material civilization, in the mechanical arts, in practical legislation even, so far as it relates to masses of men and the ruder forces of Nature, the American people have revealed, and are every day developing an intelligence which no other nation ever exhibited on so grand a scale. Even popular education is more general, interests and occupies a greater number of persons, creates a larger number of pupils imbued with the rudiments of knowledge, than in any other country. In all this we may feel pride without boasting, and pleasure without being accused of self-complacence. But when we ask ourselves what has been accomplished among us in science, learning, polite literature, and art, in those departments which require the utmost exertions of genius, and the steady, patient, and laborious application of knowledge and skill to the production of great results, a different answer must be given. We are compelled to admit that our scholars and writers, our scientists

and artists, who have gained the highest reputation, are pupils of European masters, and have themselves often been trained in European schools. In spite of ourselves, as it were, our younger civilization is nursed by the elder, and we draw from its exuberant stores the nutriment on which our higher culture thrives.

None but the ignorant or the wilfully blind can doubt these truths. The very first to confess it are the historians, the artists, the scholars of every sort, the learned lawyers, and the scientific physicians, who have done most by their own genius and industry to advance our intellectual civilization. The best of the lectures that we hear would be unspoken, and of the books by American authors that we read would be unwritten, were they not supplied from the overflowing fountain of European learning. Into the youthful, virgin, active mind of America the stream of European knowledge is perpetually pouring, just as, centuries ago, Greek and oriental wisdom fructified the germs of European thought. It is generating here a brood of ideas which in due time will rival their progenitors in the intellectual field, as American handicraft is already rivalling that of the old world, filling our shops and our houses with the fruits of in-

genuity and skill, and to the same extent, excluding the rival products of foreign manufacture.

In arriving at this successful competition it has never, for a moment, been proposed that we should rely upon our own genius and experience alone. On the contrary, there has been a perpetual effort to discover the most successful methods and mechanical appliances in use abroad, which are generally concealed with cautious jealousy; we have imported materials and workmen and instruments, and in every way sought to excel our rivals by using their own methods, and improving upon them.

Even with these advantages we should have failed now, as we have often failed before, had it not been that circumstances aided us unexpectedly. A few years ago, and all the energy, and talent, and skill, and industry of our producing classes struggled manfully, but in vain, against foreign and domestic competition. From every town where the hum of the cotton mill, or the clang of the machine shop was heard, went up the despairing cry to the government, "Save us, or we perish!" But the government, always doing right by halves, distracted by opposite counsels, divided by conflicting interests, gave to the industry of the manufacturers a faint-hearted and feeble support; and while foreign merchandise

glutted our markets, the hum of the cotton mill died away, and the ring of the anvil was still. Then came the civil war, in some ways an unparalleled calamity, in others an unspeakable blessing. In proportion as it compelled the imposition of duties upon foreign merchandise, it offered the strongest inducements to native production. Immediately the hives of domestic industry awakened from their lethargy, and poured forth their products, as from a horn of plenty;* foreign training, taste, and knowledge were enlisted by high rewards; the importation of foreign goods was more and more restricted to articles of luxury; the greatest establishments waxed greater in capital, enterprise, and skill, and devoured their leaner rivals. Hard as it might be upon the individual, society was unmeasurably benefited by the extinction of the weak, and "the survival of the fittest;" and strangest of all, the very populations and trade interests which before had clamored most loudly for protection, being now assured of their ability to stand against all comers, became the most earnest in their argu-

* "The census of 1850 showed the value of the annual product of all our industries to be \$1,019,106,616. Ten years later this had increased nearly ninety per cent., the annual product in 1860 being \$1,885,861,676. The census of 1870 showed that the annual product of our manufactures is more than *two and one-third times* the annual product of 1860, the total reaching the enormous figure of \$4,232,325,442."

ments and appeals for free trade, just as the English had already done when protection to their manufactures had dispelled their fears of foreign competition.

And now may I not say to the medical profession, to the schools of medicine, to our own University, "*De te fabula narratur*"? Does not this epitome of industrial and commercial progress teach a lesson which may be profitable to us in considering the causes which tend to obstruct and hamper the higher developments of medicine in this country? For it is evident that just in so far as the commercial element enters into a profession it must be subject to commercial laws; and it is certain that the expenses of a medical education, and the prospect of deriving a support from its use in medical practice, must determine the average amount of it which will be acquired by the members of the profession.

May not this lesson be profitable to us in view of the present condition of our profession, and especially of our schools? Does it not show that in teaching, as in trade, development is dependent upon one or on both of two things, protection and capital, and that where both of these are wanting, success, in any high or enlarged sense, is simply impossible?

As regards protection—that is to say, the possession by certain institutions of exclusive rights and immunities, and the extinction of all rival institutions, that, it need hardly be remarked, is, under our political system, simply impossible. If it were possible, it would still be undesirable, as a system containing within itself the seeds of its own decay; for it would perish of dry gangrene, from very lack of quickening stimuli and vitalizing nutriment. The only remaining source of safety to our medical schools as they now exist, the only possible agency for their future development, is CAPITAL.

If we look around upon American medical schools, and examine the qualifications of their teachers, we shall find, in all the leading ones, that the faculties are composed of men, a great number of whom would be distinguished in any civilized country for native talent, elaborate culture, earnestness, thoroughness, and skill in teaching. If they fail to educate their pupils up to the standard which they know to be the best and only true one, it is because they are fettered on the one hand by the defective training of the students, and their consequent inability either to appreciate the merits or to detect the shortcomings of their teachers; and on the other, and far more

heavily, by the fact that the success of a school is dependent, not only on its merits, but also on the number of its students.* This it is which destroys the independence of the schools, and compels them to perpetuate a system of education which their judgment condemns, and their conscience reprobates. Were they not forced by the inexorable laws of trade to keep down the value of their wares, and furnish them at the same price as their rivals charge, some among them would soon be found to supply a system of medical education in accordance with their own attainments, with the ambition of their educated

* We once conversed with an accomplished professor concerning the prospects of a new medical journal which had appeared in his native city, and incidently upon lectures. His remarks were more pungent than flattering, but may serve to point the moral of our text.

"The journal," said our professor, "is too dignified to succeed. Physicians outside of the large cities, and a majority in them, prefer a gossiping, trifling journal, which is all the time giving them receipts which are 'good' for this disease or the other. Your country doctor, like his antitype in town, has half the time no library but what is left of his text-books, and those of the most antediluvian editions; and if he takes a journal at all, he does not want one that obliges him to observe and think, but one that has all the impudence and self-assertion of a quack advertisement. There is no use in preaching over the heads of your audience. They are sure to fall asleep, and your discourses are very apt to be interrupted by their porcine grunts and snores. You must come down to their level. I myself," he continued, "once imagined that I should be able to lift my audience up to my own level, and fill them with the same love of scientific medicine which I felt myself; but I have seen my mistake, and I now go through a round of elementary lectures which are wearisome to my spirit, and humbling to my pride, but which are strongly relished by my class."

pupils and the wants of the profession, and in harmony with the higher standards used in European schools.*

To place them upon this firm footing and enable them to remodel education, making its foundations stronger and wider, its superstructure higher, and in every part of it employing more durable materials, the schools must be rendered independent of one another, so that the earnest and true shall not be held back by the apathetic and incompetent. Whenever the support of the professors shall cease to depend upon the number of the students, and shall be drawn from funds in the hands of the college corporations, this end will be attained. Upon the continent of Europe it has never been otherwise; and the professors

* The plan of making the incomes of professors dependent upon the number of students in medical schools was originally borrowed from the University of Edinburgh, which, in so many other respects, served as a model for our medical institutions. To this day each of its medical professors receives four guineas from every student in attendance on his lectures, a sum almost identical with our own fee. They are also paid salaries varying in amount from \$500 to \$1000 (£100 to £200), derived from endowment funds. The system of fees paid by the student to the several professors is the prevalent one also in London and Dublin. It may very pertinently be asked why it is that so many students from the United Kingdom should, after graduating at home, repair to the centres of medical education upon the continent, while it is almost without example that a German or French physician receives any portion of his medical education in Great Britain. It may also be remarked that among British medical men who have been distinguished as scientific physicians, the greater number have enjoyed the advantages of a training in continental schools.

in its schools would probably find it difficult to comprehend that they were expected not only to teach science, but at the same time to manage the domestic economy of their respective institutions, and exhibit their skill in the invention of ingenious devices to entice students. It is related of the builders of the Jewish temple that the sword was girded at their side while they plied the tools of their craft ; but our medical professors, and by a monstrous anomaly the medical professors alone, are obliged to be tradesmen and politicians as well as philosophers and physicians, to fight on one side with Mammon, and on the other, work for God. It is a familiar fact that they who live constantly in a tainted atmosphere grow insensible to its foulness, and no doubt it is for some similar reason that we become unconscious of the manifold influences around us that tend to lower the dignity and impair the usefulness of our medical institutions ; and that familiarity with their homeliness renders us dull to perceive the charms of a nobler type, or emulous to possess it. It has even been suggested that if the schools of medicine were endowed, their professors would grow supine and indolent, wanting the stimulus to exertion supplied by the present struggle for emolument. The object is a valid one just in so far as professors are unworthy of

the chairs they occupy; and the very object of the proposed plan is, among other things, to render this anomaly more rare. It is very evident that, under that plan, incompetent professors would be appointed less frequently than now; for the honor and success of the schools would forbid it. In every country of continental Europe professors have fixed salaries, and we imagine that if the suggestion were made to them that the arrangement tends to foster indolence, they would be utterly unable to comprehend the criticism. No! it is these salaried teachers to whom the progress of medicine is mainly due. They are able to pursue their studies and experimental researches without being harassed by questions of finance, or hampered by debating whether they may dare do this, or dare not do that—some act, perhaps, of doubtful probity—which a rival school employs to swell the number of its students. And so it might still be in our own country, unless our ancestors belied the ancient sentiment, and changed their nature as well as their climate in crossing the sea.

But, however desirable it must be that medical education should be placed upon an independent basis, the practical question arises, "Can it be accomplished?" Every one knows how unproductive of improvement in the programme of

official teaching have been the discussions of its inadequacy which have been repeated for so many years, as to have at last become wearisome and almost impertinent. But no one, we believe, has hitherto proposed to untie the knot by cutting it, by providing funds, that is, for the endowment of professorships in any of the leading medical schools. One institution, to its honor let it be spoken, has reformed its whole plan of teaching, upon the model which reason and experience agree in approving as the best. Much as I desire, in this instance, to be a false prophet, I have little fear of meeting with the fate of one, when I declare with unfeigned sorrow my conviction that the Medical Department of Harvard University, which has heroically undertaken so difficult a task without providing endowments for its professors' chairs, must of necessity fail to secure the success which its liberal policy deserves.*

* From the "Forty-seventh Annual Report of the President of Harvard College, 1871-72," we learn that immediately on the adoption of the new system of instruction, the number of medical students fell from 301 in 1870-71 to 203 in 1871-72. The catalogue of the Medical Department for 1872-73 gives the names of 170 students. Under the new system, therefore, the classes have thus far progressively diminished. The receipts have fallen off in the same proportion, and the professors have nearly twice as much work to do, with a remuneration only half as great as they formerly received. The result of this arrangement must necessarily be to compel men of real eminence to withdraw from professorships which are so meanly

Without entering into arithmetical details, which on this occasion would be out of place, it may be sufficient to say that a fund of less than two hundred thousand dollars would produce a revenue, which, when added to the fees paid by the students themselves, would be sufficient to remunerate at least eight professors for courses of lectures of not less than six months each.* Even

salariéd, and to substitute for them young and immature teachers, who will regard their position in the Medical College as a passport to reputation and practice, and who are willing to purchase this result by a few years of unrecompensed labor. By this plan the traditions of university education are set at nought, its dignity compromised, and its authority impaired. If any profession requires in its teachers the weight of character which maturity of intellect and learning and ripe experience give, it is certainly the medical; but a plan which virtually excludes such qualifications by refusing to compensate them is too much in opposition to human nature and experience to succeed.

The President of Harvard College observes: "It is greatly to be regretted that the Medical School is not sufficiently endowed to make it practically independent of the number of students." It may be respectfully asked if it would not have been better to secure a sufficient endowment before adopting a system of education which directly diminishes the number of students, by its disproportionate elevation above the average standard of students' acquirements? A system which tends on the one hand to sacrifice the best professors by reducing their emoluments to a mere pittance, and, on the other hand, excludes all students except those only who are really qualified to appreciate and profit by the highest instruction, is too illogical, too inconsistent with itself, to have a long and vigorous life.

* Eight would be a minimum number of professors; but that number should include a professor of General Pathology and Morbid Anatomy. It is incomprehensible that those subjects, which lie at the very foundation of the science of medicine, should have no provision made for them in the curriculum of the largest American medical schools.

The following schedule presents a plan of medical studies which might, we think, be adopted within a very few years: *1st Year.*

if the higher grade of instruction which would then be given and required, should cause, for a time, one-quarter or even one-third of the present average number of students to prefer institutions where the value of the teaching is proportioned to its smaller cost, the University would lose nothing permanently, but would gain exceedingly in reputation and rank.

Is this plan Utopian? Is it to be added to the many that, like bright bubbles, have burst upon the surface of the stagnant waters of medical education? Whatever might have been thought regarding it a few years ago, such a judgment of its merits would be rash now when so much has been accomplished in behalf of the University at large, and especially of its Collegiate and Scientific Departments, and so great liberality has been displayed in providing a site and funds for the erection and endowment of the University Hospital. That we may be encouraged not only to hope but to work, let me conclude this

Chemistry, lectures and laboratory; Anatomy, lectures and dissections; Physiology; Materia Medica, Medical Botany and Pharmacy. *2d Year.* Anatomy; Physiology; General Pathology; Morbid Anatomy; Materia Medica and Therapeutics; Clinical Medicine and Surgery. *3d Year.* Medicine; Surgery; Obstetrics; Diseases of Women and Children; Clinical instruction in these branches; Medical Jurisprudence and Toxicology. Examinations at the end of every year's course, their result to determine the fitness of the student to advance.

Address with a sketch of what has been done for the permanent illustration of clinical medicine and surgery in the University, and of what it is hoped to do for the erection of a new building for the medical department. It is known to most of my audience that, several years ago, it was determined to remove the University from its present site to another on the western side of the Schuylkill, where ample grounds had been secured by purchase, or in the aggregate at a nominal price, from the city. Already in that situation stands the imposing edifice of the collegiate and scientific departments, and there the medical department and its hospital will soon be erected. The latter is indeed already begun. For some time previous to the spring of 1871, the subject had been freely canvassed; but the first definite step taken was at the meeting of the Alumni Association in that year, when a motion was adopted to appoint a committee to confer with the Faculty and Trustees as to the feasibility of securing the erection of a hospital in connection with the University. This committee addressed the Faculty on the subject, and were answered by the appointment of a committee to act in concert with the Committee of the Alumni.

An address was presented to the Trustees, and a resolution was adopted by them, agreeing to

appropriate a portion of their ground in West Philadelphia for the erection of a hospital. The joint committee then prepared an appeal to the public which was signed by a number of influential citizens and widely circulated. At a meeting of the signers of this appeal an Executive Committee was appointed, which was soon enlarged into the Finance Committee, by which all subsequent movements were directed.

Efforts were then made to obtain subscriptions from corporations and individuals: the amount determined to be necessary for carrying out the project being \$700,000. The subscriptions in most instances were made payable in four annual instalments; and by a special resolution of the Board of Trustees it was determined that \$5000 should endow one free bed. Several of the great railway corporations have subscribed in this way, and a number of large firms and individuals have done the same.

In the early part of 1872 the subscriptions having reached the sum of about \$125,000, application was made to the Legislature for an appropriation of \$100,000 to be spent in the erection of the building. In order to show how strong was the support given to this enterprise by the citizens, the appeal for the appropriation requested that it should be made contingent upon

the additional subscription of \$250,000. This appropriation was unanimously voted, and when on November 15th, the subscription reached the required sum of \$250,000, application was made to the State Treasurer, and the amount appropriated (\$100,000) was paid.

Finding that as the sum of the subscriptions rapidly increased, it would be possible to erect a much larger hospital than was at first deemed possible, application was made in May, 1872, to the City Councils for a lot of ground as a building site; and by an ordinance, approved May 18th, 1872, a piece of ground (extending between Thirty-fourth and Thirty-sixth Streets, embracing nearly six acres in immediate continuation of the remaining property of the University), was given to the Trustees in trust as a building site for the proposed hospital. In return the Trustees agreed to complete the building within five years, and to permanently maintain in it at least fifty free beds for the use of the poor of the community disabled by accident or sickness. In addition to the smaller private subscriptions, the sum of fifty thousand dollars has been contributed by a generous and benevolent gentleman, payable so soon as the endowment fund shall actually amount to \$250,000.

As the plans that have been adopted for the

hospital will involve an outlay of over \$200,000 in building alone, it has been decided to apply to the Legislature for a second sum of \$100,000, contingent upon the securing of an additional \$100,000 by subscription.* If this application meet with the success which is hoped for and confidently anticipated, it will put the Trustees in possession, on account of the hospital, of nearly six acres of ground, free from all incumbrance; a building fund, given by the State, of \$200,000; and an endowment fund raised by contribution of \$350,000.

During the past summer a Building Committee, with the aid of the University architect, elaborated the plans for the hospital with the greatest care. The proposed building will harmonize in architecture with the already completed Department of arts and science, and like it will be in the University Gothic style. Its plan is specially designed to admit of the continued growth and extension of the hospital without injury to its unity or to its architectural symmetry. It comprises a central building and a series of lateral pavilions, each designed to accommodate ninety patients. The central building consists of a basement floor, three stories, and a Mansard roof.

* This sum has been appropriated by the Legislature.

It is sixty feet front by one hundred and fifty deep. It contains a lecture room on the basement floor for two hundred persons, and a great amphitheatre in the upper portion, capable of seating seven hundred. It contains, also, the general kitchen, offices of administration, sleeping rooms for Resident Physicians, apartments for private patients, etc.

It is proposed to erect at present but two pavilions, which are to be connected with the central building by corridors about forty feet long. The entire structure will be about two hundred and twenty feet long, and will front on the south side of Spruce Street but a short distance back from the curb, so as to allow as much space as possible in the rear for exercise and ventilation. Each pavilion will consist of a basement floor (devoted to dispensary work, servants' rooms, cells for mania à potu patients, etc.), two main floors, and a Mansard roof, with rooms for servants. The laundry and heating apparatus will occupy a building immediately in the rear of the centre building; and the entrance for patients, waiting room, morgue, and pathological laboratory another small building on Pine Street.

The foundations of the central building and west pavilion are already far advanced.

It is generally known that the Board of Trus-

tees of the University determined to sell the ground where we now stand in order to obtain funds for the erection of the new buildings in West Philadelphia, and also that a Commission appointed by the Government of the United States has reported in favor of its purchase as a site for the public buildings required in this city. The Congress has made an appropriation for this object, and now it only remains for the Secretary of the Treasury to approve of the report of the Commission, which was presented several months ago. There is every reason to believe that this approval will not be withheld.* As soon thereafter as possible, a building for the Medical Department will be erected in the immediate vicinity of the University Hospital. These two buildings will harmonize in architecture with that of the Department of Arts, whose beauty is well known, and when they are completed, and the grounds around them appropriately inclosed and adorned, they will be among the finest public edifices of Philadelphia.

The Medical Department, possessed of a model hospital entirely under its own control, will also be at the very doors of the Philadelphia Hospital, one of the largest in the United States; and

* Since the delivery of this Address the Report has been approved.

within a short distance, a third, the Presbyterian Hospital, will, in a short time, present all the characters of a first-rate clinical institution. Such advantages, concentrated within so small a space, are probably quite unrivalled. To them must be added the great gain to the students of exchanging a site in the midst of a crowded and noisy neighborhood, filled with innumerable temptations, for one which is beautiful in itself and remote from riot and dissipation, where the grounds insure a wholesome atmosphere, and where all the surroundings will be harmonious, and invite to a decorous and studious life.

With this statement before you, gentlemen, of what our Medical School ought to be, of the means by which it can be placed in its proper position, of the work that has been performed and is still vigorously carried on for erecting and endowing its Hospital, and of the advantages that will accrue to it from this source, as well as from its translation to a new locality, I leave the subject to your study, and commend it to your earnest and active co-operation.

Time fails me to present it in all its bearings, and especially to elaborate the ideas which crowd upon the mind in reference to the harmony which ought to exist between this new-birth in material things, and a reorganization of our system of

medical education. But if I shall have inspired some of those who hear me with fresh motives to love and venerate our Alma Mater, and to labor for her future greatness, I shall feel the less regret that the honorable and grateful duty confided to me has been so imperfectly performed.

