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THE AMERICAN TYPE OF UNIVERSITY¹

Mr. Chancellor, and Ladies and Gentlemen, and, more particularly, you young men and women of the Class of 1907:

There is no more fascinating, indeed no more exhilarating, spectacle than a commencement scene in an American university, on a clear and bracing morning in the rosy month of June.

It is not only the hour when an eager and ambitious class—justly proud of substantial intellectual accomplishments, with the proper confidence which comes of very considerable intellectual discipline, truly courageous and sanely idealistic through much contact with the very best in human life—receives the standard stamp of approbation and commendation which the best scholarship can give; but it is also the hour when the university comes out into the open and presents to the activities of actual life the finest new energies which it can generate and train.

There are universities—and many of them—in other countries which never have commencements. They give credits for work done, and when one has enough credits he exchanges them for a degree. I say *he* because the women have little or nothing to do with it. The whole thing is as guiltless of ideality, of imagination, of incentive, of spirit in any form, as the building of a canal-boat or the buying of a pair of shoes. There are universities in this country which have inherited so much from

¹ Commencement address at Syracuse University, June 12, 1907.

the universities of the old countries that they are able to understand the spirit and meet the educational needs of the United States only with the greatest difficulty and only in the most apprehensive, ponderous, and distressing kind of way. And there are universities in all countries which have inbred so much, which are so self-satisfied, which have got so much transmitted 'culture' which did not come through heavy work, that they are innocently unjust and necessarily unfair to the people upon whom they must depend for the continuous reinforcement of virile life. There is a scholarship so unemotional as to be gloomy, so aristocratic as to be useless, so 'cultured' as to be insipid, so cynical as to be tormenting; but scholarship of the modern type in America has little in common with it.

The great fact that makes a university commencement in our country of such absorbing popular interest is that it is the annual occasion of an *American* university. The world sees, if willing to see, a new type of university in this country in the last half-century. Let us inquire, with necessary brevity, how it has come to be, and what are the features which distinguish it.

All of the older social systems of the world, no matter how proficient in political philosophy or in the arts and sciences of civilization, have shown a distinct cleavage between the upper and the nether classes. The names of things have been different in different countries and the things themselves have had all manner of forms and colorings, but the fact has been well-nigh universal that there have been two great classes and that a small higher class has ruled a much larger lower class. As universally as this has been true, the universities have been the creations and have reflected the outlook and executed the purposes of the higher class. The outlook of the higher class has seldom caught a

glimpse of the wisdom of giving every one his chance, and the self-interest of that class has never been much tempered by anxiety for widely diffusing a universal learning. The change has come through the fact that in this country the larger class is having something to say about it.

Until in our country, and practically in our time, the university has stood for some manner of exclusiveness. It may have been for a monarch and what he implies; it may have been for a more or less constitutional state; it may have been for a church; it may have been for a profession or a guild: never, until now and here, has it stood for all learning and for all the people.

This was almost as true of early American as of foreign colleges or universities. We too often forget—if, indeed, we have ever realized—that our American democracy, with its great elements of toleration, equality before the law, free right of opportunity for all, no special privileges, and with its public institutions of equal service to all, did not all at once come full-fledged into the world by the migration of a few thousand people of well-settled notions across the sea. The common thought and the social and institutional life of the old world persisted in the new world. Harvard, William and Mary, Yale, Princeton, Columbia, Pennsylvania, Rutgers, Brown, Dartmouth, all stood for aristocracy in the state, for denominationalism in religion, and for a learning which was exclusively culturing and professional. They never dreamed of uplifting the common people or of applying scientific research to the industries of the country.

It does not signify any lack of appreciation of the great qualities which the early settlers brought to this country, to say that the dominant and distinguishing thought of the nation has come from the compound-

ing of a new nation out of pretty nearly all kinds of people in the world. The very necessities of the situation have broken down all general distinctions between classes and brought forth a national political philosophy with a universal freedom of initiative and a popular efficiency in consummation which the world has never seen before. It is this which has made a new manner of university. It has remodeled the earlier universities and it has brought very quickly into vigorous life many powerful institutions which stand for the universal purpose to promote the universal good. Some of them have resulted from the benefactions of a man of wealth, some from the leadership of a great executive and the work and love of a multitude of others who had little besides work and love to give, and some through the popular determination working through the political machinery of the state. But *all* have had to appeal to a constituency which was wider than any class, or sect, or party, and such as have been able to meet the needs of such a constituency have found overwhelming support and response to their ability to do it.

It is interesting to note that the university development has been strongest where our democracy has been the freest. As new states were settled to the westward by a people who lacked little in moral purpose and nothing in initiative or in courage, they not only took good care of an elementary school system but commonly provided for a state university in their new constitutions. The older states could not do that when *they* were organized because neither legal opportunity, nor political philosophy, nor educational theory, nor the force of popular initiative were up to the point of doing it at that time. And the lead in freedom and in force of popular initiative which the newer states gained from the

fulness of their opportunity, they seem likely to hold. They are certainly diffusing the higher learning more completely among all the people without regard to heredity or wealth than any other people in the world. They have established proprietorship in a universal school system of sixteen grades, beginning with the kindergarten and continuing along a smooth and unbroken road up to and through the university, which is unique in the history of education. They see, as most of us in the east do *not* see, that the logical educational result of our fundamental political theory, that every child of the republic shall have equality of opportunity, leads to a university so free at least that none who is prepared for it and aspires to it shall fail to get it only because he lacks the money to pay the cost. It is as inevitable as the natural outworking of our political philosophy is certain that this ideal will obtain in the course of time wherever the presence of the flag of the union determines the educational policy of a people.

When it was settled that we were to have a universal public high school system all over this country, it was practically settled that we should have a public university system as well. One thing in intellectual evolution and educational opportunity accomplished in America, another thing—and a higher thing—will follow almost as a matter of course. If one asks where it is to end, the answer must be “I do not know.” The hereafter ought to have some things to settle, and that is one of them.

The building of public high schools made it certain that the colleges already established would have to forego much of their exclusiveness and that there would be new colleges and groups of colleges in which the control would not be with any class.

The great difficulty with the systems of education in other lands is not that they

have no elementary school system. They very generally have excellent ones. Attempting less than we do in the primary schools, they sometimes do it better than we do; and, better still, they have less difficulty than we do in making every child attend upon the instruction provided for him. Nor is the difficulty that they have no university system. Very generally they have an excellent one, from which we have much to learn. The difficulty is that there is no connecting link between the two, and that it is not intended that there shall be one. There is not only no continuous road from one to the other, but there are insurmountable barriers between them. The universities serve an exclusive class, and no matter how educationally entitled a child of the masses may be, it is difficult, almost to the point of prohibition, for him to secure the advantages of the advanced schools.

That is the thing which the fundamental political philosophy and the deliberate democratic purpose of this country are obviating. It is not that any of us are against all the exclusiveness that anybody wants in his private or family life. We all want some of that ourselves; it is a matter of temperament, of congeniality, of experience and of taste, and in personal affairs these are to have their way; but the public policy of the country will give every one his public chance, his equal opportunity—at least so far as the common wealth and the common political power are used to create individual opportunity at all.

Happily, the high-school movement in America has proved to be a great disorganizer of classes, as well as a great help to the diffusion of higher learning. It has made men and women of all classes know each other better and regard each other more. It has gained and retained the

interest of many of quick mentality, marked business success, and newly-acquired wealth in popular education. It has been the secret spring of many a great gift to a university, and of much munificence for the common good.

And, whatever else it has done, it has created an overwhelming influence for the development of universities and for determining the essential features of new universities in America. There was reason for the earliest and most decisive manifestation of this movement in the newer states. There were no old-line academies and colleges there to stand in the way of it. The settlers were of the finest New York and New England stock: they knew about the very best in education. The parents were ready to lay down their all, even their lives, for their children; and they had a clear field. Of course, with such a people the school house became the most conspicuous building in the pioneer village, and of course a little 'college' sprang up in every considerable town. Of course, again, with such a people the public high school had its quickest and perhaps its most luxuriant development. The sooner the high school became a fact the sooner higher education became a passion. When the federal land grants were made to higher education in all the states, right at the darkest hour in the Civil War, the eastern states hardly knew about them at all, and have never made more than perfunctory and indifferent use of them, while the western states have seized them with avidity, put them to their utmost possibilities, added to them from ten to an hundred-fold, and cry for more with an eagerness and an audacity that would have made young Oliver Twist a veritable hero.

And these federal land grants in themselves have had much to do in fixing the predominant type of university in America.

With them, with the complete recognition of the principle that it is within the functions of a democratic state to do—or to delegate the legal power to do—whatsoever the people want to do for learning, and with general education boards with millions at their disposal every year for the higher institutions, it is not difficult to see that the colleges and universities in America which will endure will minister to all the people, without reference to their means, and will promote every phase of honorable endeavor without regard to class or station.

Let it not be inferred that the typical American university is, or is to be, the poor man's university. It is not to be burdened with any qualifying adjectives. It is to be the rich man's and the poor man's alike. Its strength is, and is to be, in the fact that it is representative of the common life. It is to be no more exclusive than the constitution of the country is exclusive, save upon the one point of ability to do its work. It brings rich and poor, men and women, together upon the basis of advanced scholarship, and it gives intellect an opportunity which is distinctly higher and nobler than any that can follow the mere accidents of birth or the mere incidents of life.

No university can be a real or an effective American university and follow the exclusive educational ideals of other countries and other times. A new nation has been compounded in this country out of people from all social, industrial, political and moral conditions in the world. That nation is working out its own salvation. It is doing it upon lines that are peculiar to itself. I think it is doing it safely and effectually. The net result will be the freest and the finest uplift to the intellectual and moral state of men and women that the world has ever seen. This thing is not only going through this nation, but,

largely through the instrumentality of this nation, it is going through the world. It must, of necessity, create instrumentalities which are peculiarly its own. Above all, its educational institutions of the first rank, which must regulate the ebb and flow of the nation's best and truest thought, can not be limited by ideals which had reached their zenith before our nation was born and before our political science had begun to make its revolutionary impressions upon the thinking and the destiny of mankind. Nor, indeed, can we be limited by conditions which prevail at this time in other nations and their institutions. Without, by any means, descending to the low level of declaring that things in this country are better than things in other countries only because they *are* in this country, and cheerfully recognizing the vastness of the knowledge we are yet to gain from other lands, I dare make the declaration, in words that will leave little to be misunderstood, that we can not follow the British university, with its narrow, purely classical and purely English scholarship, which is studiously prevented from being broadened by that fatuous policy of the ruling classes which stubbornly refuses the organization of all secondary schools through which the only people who can broaden it may come to the universities at all. We can not accept the scheme of the French universities, overbalanced as they are with the mechanical and the imaginative, and dominated by the martial feeling and the military organization of a people who need the opportunity of thinking freely above all other things. Nor can we copy the German university, which puts the scientific method first, regards sound morals but little, and conveniently absolves itself from all responsibility about the character of its students, so long as they can use a microscope to magnify the strength of the empire. And

if we can not be guided by the English or French or German universities, we can not be guided by any. We will take and we will leave whatever will serve our ends either by taking or leaving. We will build up institutions which make for scholarship, for freedom and for character, and which, withal, will look through American eyes upon questions of political policy, and train American hands to deftness in the constructive and manufacturing industries of most concern to the United States.

There has been no more noteworthy or promising development in our intellectual, political, or industrial life than the flocking of students in recent years to the universities which show a rational appreciation of the educational demands of our American life, and a reasonable disposition to meet the needs of the educational situation. Even where a university is not situated in a large city and is not sustained by an attendance which *will* go somewhere and can go nowhere else, it has stood in no need of students or of support if it could enter into the spirit of the Republic and would offer sound instruction which had some human interest and some real bearing upon practical training for our own professional and industrial life.

A mere English or culturing training, no matter how excellent and necessary a thing in itself, is no longer a preparation for the professions. The legal profession demands that and also a great and varied special library; a knowledge of legal history and theory; certainty about the statutes and the decisions; aptness at associating all in a comprehensive and logical whole, and readiness at applying the correct parts to new cases. It requires years of study under expert and practical teachers, with ample accommodations, in a special school, almost necessarily associated with a university. Medicine claims the English

training, and then exacts years of research in chemistry, zoology, bacteriology, physiology and other fundamental and kindred sciences, requiring great laboratories and costly equipment which can hardly be provided at all outside of the great universities. After that, the theory and practise specially appertaining to the profession must have a special school, and again almost necessarily, one associated with a university. It is the same with architecture, and engineering, and agriculture, and all the professional and industrial activities of the country. It is even largely so with the fine arts. All demand the libraries, and laboratories, and drafting rooms, and shops, and athletic grounds, and gymnasiums, and kitchens, and all the other things which only the large universities can provide, and all students do their own work more happily and absorb much from the work of the others when they get their training in association with the crowd in the university. Wherever the university offers all these things, there the students gather; there thought is free—but is very liable to have the conceits taken out of its freedom; there the actual doing outweighs the mere talk; there practical research cuts dogmatism to the bone; there honest work has its reward, and pretense its quick condemnation; there men and women measure up for what they *are* rather than for what they claim; there inspiration is given to every proper ambition, and there a great and true American university develops.

All this has led to some very sharp differentiation between the external forms and the manner of government and the plan of work of American and foreign universities. For example, the board of trustees is largely peculiar to American universities. It stands for the mass in university government and policy. On the other side of the sea there is no *mass* in university affairs. Charters run in the

name of the king; the king is the head of the university, as of the state; and the king, or the king's minister, determines the course the university is to pursue. The early American colleges were all chartered by the king; even parliament had no part in the matter. In the midst of the revolution, just following the defeat of St. Leger at Oriskany, of Clinton in his movement up the Hudson, and of Burgoyne at Saratoga, when neither king nor parliament were much in vogue in New York, and when a petition was presented to the young state government for the chartering of Union College, there was not a little embarrassment as to whether it should be addressed to the governor or to the legislature, and as to which should deal with it. Yankee ingenuity met the difficulty by addressing the prayer to both, and statecraft split the difference by creating the board of regents to deal with such matters. But, however chartered, the board of trustees stands for the donors, the creators and the public, in giving trend to the course of the university. The point of it is that the founders, either the donors or the public, or both, are represented in the matter.

There is no office like our *presidency* in foreign universities. The reason for this appears in the fact that there is no faculty to be gathered, assimilated, partly eliminated, reinforced, and dealt with, according to our usage. The reason for *this* is that the intellectual provender is provided upon the *European* rather than upon the *American* plan. You pay for what you get, rather than pay for everything and then take what you like. The charges are for single courses. The professor gets the fees. The thing works automatically. If he can not teach he lacks students and soon obliterates himself. So far it is well. If another comes along who can gather students, he is welcome. There is something to be said for the system, but it lacks compre-

hensiveness, grasp, and the strength to bear responsibility for the balanced training of youth and the harmonious evolution of character. It will suffice where the institution has no care about intellectual balance or morals, and therefore it will not do in this country. The office of president holds things together, makes the parts fit into each other, stands for the public, the trustees, the teachers, the parents and the students, and carries the whole forward to the great ends for which a wealth of money, and of holy effort, and of the world's wisdom, has been put into it. And there is nothing clearer than that the university flourishes, that is, that the purposes of all that centers in the creation are most completely accomplished, when it has a sane and capable all-round executive who can mark out a good way and has *will* enough to make it go.

The early American colleges, copied upon foreign prototypes, have had to do so much readjusting that their old friends would not recognize them, and the ones which came a little later have naturally been created to fit a situation and fall in with a very general order. From now on they will not be able, and probably they will not be disposed, to dominate university policy in the United States. They will be obliged to work in accord with the overwhelming number of universities, colleges and secondary schools taken together. They will have to accept students *who can do their work* and who want to do it, without so much reference to how or what they have studied somewhere else. The western boys and girls say that under the accrediting system, by which institutions are examined more than students, it is easier to get into western than into eastern universities, but that, once in, it is hard to stay in a western university, while one who gets into an eastern university can hardly fail to be graduated if he will be polite to

the professors and pay the term bills. And the western people say that their way is best; that every one must have his chance; that at least his chance is not to be taken away upon a false premise; that if he "flunks out" after having had his chance it is his fault and no one is going to worry about it; and that it is better to regard the graduation standards and apply them to four years' work that the faculty must know all about than to make a fetish of entrance requirements and have so much ado about prior work—about which they can know very little at the best. It is all worth thinking about. I am not a westerner: I am thoroughly a New Yorker. But I am for the open, the continuous and the smooth road from the primary school to the university, and for every one having his chance without any likelihood of his losing it upon a misunderstanding or a hazard.

The large and strong universities will not only wax larger and stronger, but they will multiply in number. Because there will be so many of them, no one of them will serve so widely scattered a constituency as heretofore. Women are going to have the same rights as men to the higher learning. Boys will not always go to a university because their grandfathers went there. The time will come, while members of this graduating class are yet in middle life, when every large and vigorous city and the territory naturally tributary thereto will have a great university, able not only to satisfy its needs of the culturing studies but also its demands for professional and business upbuilding.

What is to become of the literary colleges? They are to flourish so long as, and wherever, they can provide the best instruction in the humanities, and do not assume names which they have no right to wear, and do not attempt to do work which they

can only do indifferently. They will train for culture and they will prepare for the professional work as of yore. And wherever one does this well and is content to do so, it is to have every sympathy and support which an appreciative public can give. But no institutions, of whatever name or grade, are going to fool all the people for a great while, and the young men and women of America are going to have the best training that the world can give, and have it not a thousand miles from home. It is no longer necessary to cross the sea in order to get it, and even our own older universities are close upon the time when their work must be reinforced from the newer ones, more than the newer ones from the older ones.

Obviously, the American university, as no other university in the world, must regard the life, and especially the employments, of the people. It must exhibit catholicity of spirit; it must tolerate all creeds; it must inspire all schools; it must guard all the professions, and it must strive to aid all the industries. It must quicken civic feeling in a system where all depends upon the rule of the people. It must stand for work, for work of hand as well as of head, where all toil is alike honorable and all worth is cornered upon respect for it.

In a word, our immigration is making a nation of a wholly new order; our democracy is developing a new kind of civilization; our system of common schools, primary and secondary, has brought forth a type of advanced schools peculiar to the country. Institutions that would prosper may better recognize the fact. The universities that would thrive must put away all exclusiveness and dedicate themselves to universal public service. They must not try to keep people out: they must help all who are worthy to get in. It is not necessary that all of these institutions shall

stand upon exactly the same level; it is necessary that each shall have a large constituency; it is necessary that all shall connect with some schools that are below them. It is imperative that all shall value the man at his true worth and not reject him because his preparation has lacked an ingredient which a professor has been brought up to worship. Essentially so when, in case the boy has studied the subject in the high school, the professor is as likely as otherwise to tell him that he has been wrongly taught and that he must get what he has learned out of his head before he can start right and hope to know the thing as he ought. It is necessary that all shall be keen enough to see what is of human interest and broad enough to promote every activity in which any number of people may engage.

The American university will carry the benefits of scientific research to the doors of the multitude. It will make healthier houses and handsomer streets, richer farms and safer railways, happier towns and thriftier cities, through the application of fundamental principles to all the activities of all the people. It will train balanced men and women and therefore it will promote sport as well as work and control the conduct of students as well as open their minds. It will not absolve itself from any legitimate responsibilities which instructors are bound to bear towards youth. It will preserve the freedom of teaching, but it will not tolerate freakishness or license in the name of freedom of teaching. It will engage in research as well as instruction, but when men absolve themselves from teaching for the sake of research it will insist upon a grain of discovery in the course of a human life. We have a distinct national spirit in America. An American university will understand how that has come to be and what it is aiming

at, will fall in with it, will be optimistic about it, and will help it on to its fullest consummation.

I have discussed this theme here because it ought to be realized by the people and particularly by the universities of New York; because I think the university which I have the honor to address is—quite as completely as any institution in the state—actuated by the spirit and outlook which an American university must have, and therefore because I had reason to believe my discussion would have hospitality under this roof. I would be false to my sense of justice and my standard of public usefulness if I did not say that since my return to the state it has appeared more and more clearly to me that the marvelous growth of Syracuse University has resulted from the fact that it has been moved by the true spirit of modern American university progress.

I know something of the details of university evolution. I know that many people have combined to produce this splendid evolution. It has all come from individual giving and cooperative effort. The people of this thrifty inland city have surely done much for it. The return upon the investment will be a great one—how great only a few can now foresee. The Methodist church has been true to its history, its character and its aggressive democratic spirit, in the valiant support it has given to this university. The donors who have made its equipment possible, the trustees who have kept it in the middle of the road, the teachers who have given it tone and distinction, the students and the graduates who have given it reputation for energy and valor, are all entitled to a warm word of commendation and congratulation from an educational representative of the state. And to you, Mr. Chancellor, for the

masterful management which has bound all of these factors together and wrought out this magnificent creation, I shall always, respectfully and heartfully, remove my hat.

I can not close without a direct word to this graduating class. It is essentially their day and my direct word to them has already been too long delayed. They would hardly realize that they had been graduated, without a little preachment. Young men and women, you have now learned enough to cause you to fear a little. But fear not overmuch. You are reasonably prepared for work; hesitate not to go about it. There is a place for you, but you will have to go and win it. The rivalries will be sharp; but you have as much chance as any. Your salvation is to come through work. The world honors the man or woman who loves and honors work. It makes little matter what the work may be; take a step at a time and keep doing it all the time. You will always have knowledge and strength for the next step. Think not so much about the wages as about health and responsibility and the knowledge and skill for more and better work. You are not entitled to exact much yet. Make the best of whatever opens to you. Be prudent, but not over-prudent. "A penny saved is a penny earned" is a maxim which is not true. In many a case the penny saved is a dollar lost, and it sometimes happens that it is public respect and fraternal regard lost. Do not stand aloof; certainly do not be a cynic; above all, do not get to be a freak. Keep step with the procession. It is a pretty good crowd and it is generally moving in the right direction. Have standards and stand by them. You can live by yourself and maintain your standards with little trouble, but then the standards will be of small account and you will make no more impression upon life

than as though you had never lived. Reinforce yourself all the time. Accumulate a library. While you follow a business with devotion, seek recreation in literature, particularly in the literature of biography and history, that your lives may have more joy in them, that you may gain the inspiration that quickens action, that you may follow your business to the fullest measure of success and round out your years with the fullest regard of the people among whom you live. Be patient. Keep steady. Bide your time. Success in the game will not come by a chance play, no matter how brilliant, so much as by uniform efficiency and unceasing persistence. It is remarkable how men and women go up or down according to the direction they take and the regularity with which they keep at it. If you have a fair foothold at forty, you will be a round success at sixty. Be tolerant, but have faith in things. Do not let your student habit of inquiry and investigation unsettle all the faith that you learned at your mother's knee. Believe in your village, your ward, your city, your state. Sustain a church and at least some of the philanthropic effort that sets rather heavily on one half of the world but ameliorates the hard situations of the other half. Act with a party; yell for a ticket; whoop it up for the flag. Withal, don't take yourselves too seriously. You will count for more if you do not. See things in sane perspective. Have a sense of humor in your outfit. Cultivate cheerfulness. Love sport, and play for all you are worth. Don't get to be one of the lunatics who work eighteen hours a day, recognize no Sundays, and never take a vacation. Submit to no coercion. Think out what is about right and stand by it. The others will eventually have to come to it. If you find you are in error, back out without attempting to disguise it; the farther on you go the more

humiliation you will have. Be a good mixer. Give and take. Meet every obligation. On the basis of common decency make all the friends you can. Then you will carry the spirit of your university with you and do much to pay the debt which you will always owe her.

But be on the alert for special opportunities to help her. Assume not too conclusively that it must be in the conventional way. The unexpected will happen. Half a dozen years ago the richest man in the country became suddenly ill. In the absence of his regular physician he called in a young graduate of the Harvard School of Medicine and impulsively assured him that if he would get him out of that scrape he would pay any charge that he might make. The case was not serious to an educated man. The young man understood the difficulty and soon he wrought the needed cure. No bill was sent and in time it was asked for. The young physician reminded the multimillionaire of the promise. "Oh, yes," he said, "but I assumed, of course, that your charge would be within reason." The doctor's time had come. He said: "I shall make no charge, but I shall ask you to do something for me. The Harvard School of Medicine needs help. I would help her if I could. Under all the circumstances I feel warranted in asking you to look into the matter with a disposition to aid her justly, as you easily may." The old man said, "Would you like to bear a message to President Eliot?" "Yes." "Ask him to come and tell me all about it." In a week the man of wealth had given his pledge to the president of Harvard for a million when the balance should be raised, and in a month the five millions had been assured which have erected and equipped the finest plant for a medical college that is to be found in the wide, wide world.

You may not accomplish all these things,

but if you will aim at them, if you will put the training of this university to its logical use, I am sure that when the long shadows come they will bring ease and comfort and honor and that when it is all over there will be peace with the hereafter.

ANDREW S. DRAPER

DEPARTMENT OF EDUCATION,
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SCIENTIFIC BOOKS

A Text-book of Botany and Pharmacognosy, intended for the use of students of pharmacy, etc. By HENRY KRAEMER, Ph.B., Ph.D., A.B. Pp. 840. Illustrated with 321 plates and upward of 1,500 figures. Lippincott & Co.

To regard a piece of work as good pharmaceutical botany, under the educational conditions which have existed in modern pharmacy, is practically equivalent to a declaration that it is not good botany. The theory of professional education, that the technical study of a subject follows that of its general field, has not here applied, since, except in a very small minority of cases, such general preparation has been wanting. The teacher in the pharmacy school has been faced by the problem of presenting the technical aspects of his subject to students wholly unprepared for them. If he essays to supply this needed preparation, he encounters a strong protest from a profession that in the main regards schooling as objectionable in itself, and to be tolerated only as the necessary means to a pecuniary end. The chief interest, therefore, that inheres in a new book in this field of activity is the degree of ingenuity manifested by its author in juggling with his subject. If imbued, as most of these authors are, with a genuine ambition to improve existing conditions, he will not yield to the temptation to stand aloof, but will endeavor to smuggle more or less of the scientifically valuable into his presentation of the professionally necessary.

Professor Kraemer's book is more fortunate than those of his predecessors, in coming forward at a time of educational renaissance in