The Higher Education

George Trumbull Ladd

Rev

In Memoriam

Dr. Richard J. Cotter

Rev. R. J. Cotter, D. D

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ESSAYS

ON

THE HIGHER EDUCATION

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BY

GEORGE TRUMBULL LADD

PROFESSOR OF PHILOSOPHY IN YALE UNIVERSITY

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PREFACE

THE four essays which are now gathered into this volume were originally written for different audiences, and have already been published in different magazines. The paper on "The Development of the American University" was read before the "Round Table" of Boston, and that on "The Place of the Fitting-School in American Education" before the New England Association of Colleges and Preparatory Schools. A request from the editors of the "Andover Review" to reply to the presentation, made by a friend and colleague, of another system of higher education than that of which I was the chosen advocate, led to the article on "Education, New and Old." The occasion of its production, therefore, accounts for the more special and polemical character of the third essay. The address on "The Essentials of a Modern Liberal Education" was delivered before the Association of the Alumni of Western Reserve University at the Commencement of 1895. All four of these essays are here published with very few and unimportant verbal changes.

Since the first three of these essays were written at a period of more than ten years ago, they contain many particulars of statement which would need modification if revised in view of later facts, and some particulars of opinion which I should now express in a different way. It is gratifying to find that certain suggestions made in them as to possible remedies for then existing evils and deficiencies have been adopted and more or less successfully carried out. It is also a cause for hope that some of the mists arising from the first thawing of the fields congealed by long continued customs and traditions have begun to clear away; so that a more judicious estimate of the path which lies behind us in educational matters and of the lines of educational progress in the nearer future, can be more easily attained. But he certainly overestimates the assured and thoroughly well proven value of much that is "new" in education, and also underestimates the numerous puzzling problems which remain to be solved, the practical difficulties still to be overcome, who regards the permanent courses of the more popular or of the higher education in this country as by any means clearly marked out.

The enthusiastic advocate of what is new in educational ideas — as to subjects, methods, curricula, organization, etc. — regards it as highly unfortunate that *institutions* are not so plastic, so

easy to change, as are ideas. The man who is wise in practical affairs, and profound in his reflections upon the truths of history, knows that, on the contrary, this abiding and relatively stable character of the institutional expression of ideas is the fortunate thing about educational, as about other forms of progress. Most fortunate of all are those institutions which change just fast and far enough to conserve the priceless lessons of the past, while unfolding constantly to receive the suggestions of the better time coming.

It is not, then, because any of the details of opinion expressed in these essays are regarded as a finality that I have thought it possibly worth while to publish them. As respects these very details I should still be unwilling to commit myself unalterably to any of the current conflicting opinions. And I have already indicated that the events of the last decade have modified, in ways which need not at present be discussed or even noted, what was said upon various points before the original hearers of these essays. But if they possess any value sufficient to justify calling attention to them again, collectively and in this unobtrusive way, it is because they all intend to emphasize the three following truths: First, there are *some* settled and permanent principles which belong to all educational systems, in all times; and we may know what these principles are. But,

second, every age, and every country, has its own problems which concern the actual application of these unchanging principles, *in an institutional way*, to its own demands and necessities. Every age is "modern," in its own thought; but the rapidity of the current changes, and the vastness of the forces at work, create for us some especially pressing demands and peculiarly hard necessities. And, third, nothing but practical wisdom — a combination of knowledge of the values involved in the different studies and disciplines with a generous and sympathetic spirit toward each, and tact and patience in dealing with details — will solve for us, in this country and to-day, our educational problems.

GEORGE TRUMBULL LADD.

YALE UNIVERSITY,
January, 1899.

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Rev. R. J. Cotter, D D

ESSAYS

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THE DEVELOPMENT OF THE AMERICAN UNIVERSITY

NEITHER of the two most attractive and promising methods which ordinarily lie open for the discussion of a question like this, can in the present instance be followed exclusively. These two methods may be styled the descriptive, or historical, and the speculative, or ideal. By following the first method one would be led to state what the university *has been* and *is* in this country, and in other parts of the world whose civilization most nearly resembles our own; and then to show by what modifications the institution, as it now exists, might be made what it should be. Even in this way, however, it is plain that one would have to set up some ideal standard, in accordance with which any proposed modifications should take place. In following the second method one might feel emboldened at once to state what the preva-

lent form of the university *ought* to be; but one would then have to show how our existing educational institutions may be changed in order to bring them into conformity with such an ideal standard.

Now, in this country, up to the present time, there has existed no form of an educational institution which we can call "the American university," if by this term we intend to designate something other and higher than "the American college," with its possible attachment of one or more professional schools. Any one possessed of the requisite information knows at once what is meant by the university of France, the English universities, or a German university; but no one can become so conversant with facts as to tell what an American university is. It would by no means be fair, however, to sum up the history of the development of this institution with the curt sentence: "There are no universities in America." To be sure, it is hardly twenty years since the rector of Lincoln College, Oxford (Mark Pattison), wrote: "In America scientific culture has never been introduced. It has no universities such as we understand by the term." But the same writer speaks of Yale University as "stated to be a poor and hard-worked seminary," and marvels at the extent and variety of its required curriculum. Since Mr. Pattison's writing, a large number of schools have

sprung up in our West, some private and some state institutions, most of which have but veiled thinly over their deficiencies in scientific quality, equipment, and force and aim in teaching, by putting on the title of "university." Yale (and, to a greater extent, Harvard) has changed rapidly in the effort to validate this title. Johns Hopkins has made a noble start toward the realization of a high ideal, and various other institutions have given notice of their claims to be, or intentions to become, genuine universities. Still, it is scarcely less true than it was a score of years ago that, although there may be universities in America, no one can tell what an *American* university is.

On the other hand, there is no lack of theory and counsel as to the important inquiry, what the American university should be. Perhaps it would not be unfair to say that, as a rule, the less the amount of study which a man has given to the many difficult problems that enter into the development of the highest-class educational institutions in this country, the prompter and more certain is his response to this inquiry. Men who have a million or two of money, and who, from the training of their lives, have come to think all things — save heaven, and scarcely save that — purchasable with so goodly a sum, are peculiarly tempted to try the experiment of founding and calling by their name the one genuine and great American univer-

sity. If the general theory of the purchasableness of all things which enter into a university were true, it would still have to be said that the ordinary estimate of the amount required is inadequate. But surely, as long as the primary and indispensable prerequisite of a genuine and great university, wherever under the sky it may be located, is a body of teachers and pupils rightly trained, and united and animated by the right spirit, the actual result attainable by merely giving large sums of money will not fulfil a worthy ideal.

The speculative method, when employed by persons informed in the principles and practice of education, is, of course, far safer and more valuable than when employed by the ignorant. Yet I can never forget that institutions, unlike systems of abstract truth, are not wisely treated in the purely speculative way. A university is, at most, an *institution;* it is a complicated system of means through which one set of persons operates upon another set of persons for the accomplishment of certain ends. But every means must afford an answer to four inquiries: Out of what material can it be constituted? Who or what is to use it? Upon whom or upon what is it to be used? For what end is it to be used? To inquire as to what the American philosophy should be, savors of irrationality; and the inquiry would have the same savor if it took the form, What should the Scottish,

or French, or German, or Sandwich-Islands philosophy be? For the only answer to all these inquiries is that philosophy is not a matter for adjustment, as a means, to national requirements, but every nation and individual that cultivates philosophy should aim at having a true philosophy. On the contrary, the inquiry, "What should the American university be?" is not an irrational inquiry, for it is an inquiry after the best means to an end. For the same reason it cannot be raised and answered as a purely speculative inquiry; since the nature of the material out of which the American university must be constituted, if it is constituted at all, imposes upon every ideal some very hard and unavoidable limitations.

Accordingly, I shall abstain as carefully from speculating about an unattainable ideal as from describing a nonentity. Since neither the historical nor the speculative method can be pursued exclusively to their final results, let us be content to go only a little way into the subject by the use of both methods. For although there is no history, as yet, of the development of the American university, there are colleges and professional schools and other institutions of the so-called higher learning in this country, and all these institutions have a tolerably rich and instructive history. If we are ever to attain a distinctive university education, such as can be properly called "American," these

institutions, their existing and prospective structure and work, must be chiefly taken into our account, for they furnish the material from which, and the conditions on which, the development of the university must, for the most part, take place. If this material and these conditions are dealt with ill, no amount of talk and enthusiasm will save us from pursuing an unattainable or an unworthy ideal.

One word more should be premised upon this point. The American university must be developed on its own soil, and out of the existing materials, and under the existing conditions. It cannot be imported, or constructed *de novo*, as it were, from the brain and purse of any one man, or of any small number of men. "The University of Oxford," says Mr. Maxwell Lyte, "did not spring into being in any particular year, or at the bidding of any particular founder; it was not established by any formal charter of incorporation." Particular institutions bearing the name of universities may, of course, be founded in this country in a particular year, and at the bidding of a particular founder. But these will not give us the true norm or type. This will come only as the result of a living development.

Nor can I believe that it will be possible to create our university by using large importations of finished foreign goods. Would that the German

model might furnish us certain of the more important and vital factors of the ideal toward which we resolve to grow! Yet the proposal at once to import largely from the methods and constitution of the German university would be likely to result in failure. There are many features of the University as already established in Germany which we should not wish to imitate if we could. The more important commendable factors — the thorough secondary education of those who matriculate, the scientific character of the teachers and the scientific and free quality of their teaching, the relative disregard for what we incline so much to overestimate, namely, the pursuits that fit directly for some form of practical life (*Brodstudien*) — we can gain only in time and by paying the price for them. Many things in the French university system, also, and especially what Matthew Arnold calls "too much requiring of authorizations before a man may stir," unfit it to be our model. Nor can we think of taking very freely and directly from those great English institutions of Oxford and Cambridge, to which we should most naturally look for our models. The expensive character of the education they impart, the dominance of the tutorial system in their colleges to the detriment of the university, the large amount of sinecurism which they permit and encourage, the distinction between "pass" and "honor" examinations, and between the one-

quarter who come to study and win prizes and the three-quarters who come chiefly to gain the social distinction of a degree, — prevent our imitating them. As to the Scotch universities, I cannot avoid thinking that following them is most of all to be deprecated. For this reason it should not escape our notice that certain modifications now taking place in the constitution and working of the American college are liable to encourage in this country some of the worst features of the Scotch universities. At present, however, it is safely within the limits of truth to say that the degree of M.A. in a Scotch university does not necessarily signify (with the exception of logic and metaphysics) so much of training or acquisition as is required for admission to a first-rate American college. To model after the Scotch universities would accordingly be to lower the college as we already have it, and not to develop the university as we should desire to have it.

The development of the American university involves the progressive settlement of two questions concerning the best general method of education, which have been of late much discussed both here and in Europe. These are, the nature and amount of choice which the person under education shall exercise as to the subjects and method of his education, and the kind and proportion of knowledges and disciplines which ought to enter into a so-called

"liberal" education. In this country both these questions have generally been debated in a rather narrow way. The first has ordinarily been proposed as follows: How much of the college curriculum should be required, how much optional? The second has ordinarily been reduced to a strife over the point, whether Greek is necessary to be studied by every one who shall be entitled B.A. The limits of this paper do not, of course, permit me to elaborate and argue my opinion on either of these two questions. Nothing more than an intelligent and defensible *opinion*, appealing to probabilities in the light of past experience, can be gained upon such subjects of discussion. The purpose before me, however, makes it desirable that I should briefly state my opinion upon both these subjects.

The question as to the choice which the person under education shall have in the material and form of his education is one both of degrees and of expedients, — that is to say, it is a question as to how much such choice shall be allowed, and at what time it shall begin, as well as a question concerning the best means for guiding the choice and for taking the expression of it.

For the sake of convenience I will speak of the grades of education which may be secured at present in this country as four in number; these are, the primary, the secondary, the higher, and the university education, the last being understood to

be in a very inchoate and unformed condition. By the primary education we will understand such as, whether gained in public or private schools, deals with the most common and elementary subjects, and is not designed in itself to fit the pupil for the higher education. By the secondary education we will understand such as is expressly designed in preparation of the higher education; this will include those courses in the best high-schools and academies which fit pupils to enter the colleges and first-rate scientific schools of the country. These latter (excluding all *merely* technical schools) give what is entitled to be called the "higher" education. Beyond all this lies so much of the more strictly university education as is mingled with the later years of the higher education, or is taught in so-called "graduate" courses or in professional schools, so far as the latter are conformed to the university idea. It will appear in the sequel that one difficult problem connected with the development of the American university concerns the right separation of the higher education into the two parts of which it has actually come to consist, so that, by combining one of these parts with the secondary education as it now exists, we may gain a broad and solid foundation upon which to build the university education. The university part of the higher education as it now exists will, of course, then have to be joined with the other kin-

dred elements in so-called "post-graduate" courses, so as to furnish a genuine university education in the greatest possible wealth and solidity. When this problem is practically solved, therefore, we shall have three instead of four grades of education; these will be, the primary, the secondary, and the higher or university education, but the two latter will probably have far more of significance than they now have.

Looked at in the light of the foregoing distinctions, the question of the place and amount of the pupil's choice which should enter into his education appears to me not so difficult of solution. With regard to the strictly primary education no choice whatever should be permitted, either to the pupil or to his guardian, — that is to say, I would have each youth compelled by the state to go to a certain distance along paths common to all, without permission to decide whether he will go at all, or whether, if he go, he will go by just such paths rather than others. Of course, the guardian of the pupil should have the exercise of discretion as to the mode of teaching, whether public or private, and perhaps as to the age at which the primary education shall have been accomplished. Opportunity for exceptions in the cases of the incapable or sickly should also be given. But the State should compel so much of education as seems necessary for the safe and intelligent exercise

of the citizen's rights, and for his decent intercourse with his fellows. No doubt opinions will differ as to the amount and kinds of subjects which should be included in the primary education, and as to its methods, text-books, etc. But the settlement of such questions should not be left to the dull or dishonest wits of the successful politician of the ward or district; they should rather be settled by commission of the most notable experts in education, appointed for that purpose by the highest authority of the state.

The element of the pupil's choice should enter somewhat largely into the secondary education, but even here by no means in an unlimited way. In the first place, liberty of choice should be allowed in deciding whether the secondary education will be entered upon at all or not, and also, if entered upon, to what extent it will be pursued. In my opinion, also, near the beginning of the secondary education there should be given that opportunity for "bifurcation" which must certainly come at some time in the course of mental training. The principle of this bifurcation is now tolerably plain and pretty generally acknowledged. In the words of Matthew Arnold, the prime, direct aim of education is "to enable a man *to know himself and the world.*" Corresponding to this twofold aim of education there is in most men, dormant or already dominant, one or the other of two great

"aptitudes;" these are, the aptitude for the more subjective and reflective studies, and the aptitude for the studies of external observation. In other words, among youths who take to anything in the way of study, some take more naturally to letters and philosophy, and some take more naturally to physical and natural sciences. The secondary education should recognize this difference in aptitudes for one or the other part of the prime twofold aim of education. Such recognition should provide for two main courses of study, in one of which letters and the so-called humanities should predominate, and in the other mathematics and the physical and natural sciences. These courses should themselves, however, be fixed without making a frequent appeal to the choice of the pupil; they should be fixed in accordance with the world's accumulated wisdom as to the best way to teach a man "to know himself and the world," in harmony with his particular aptitude. The secondary education, in all cases where it is to lead up to a university education, should be long and thorough enough to secure what the Germans strive to secure as a preparation for their universities, — namely, the general scientific culture, or formation (*allgemeine wissenschaftliche Bildung*), of the pupil.

The higher or university education should permit and encourage the greatest possible freedom

of choice on the pupil's part; but it should not be open (except as a matter of courtesy or privilege of visitation) to those who have not satisfactorily finished the secondary stage. To this subject, however, I shall return later.

A word is pertinent in this connection as to the much-debated question of the amount of optional courses to be allowed in the present college curriculum. The American college was formerly a secondary school, pure and simple, and properly, therefore, did not admit the university method and the university idea. The American college has now developed out of the stage in which it was strictly a means for secondary education, without having yet developed into the higher or university stage. It contains, however, certain elements of the university idea. These elements are to be welcomed as existing in the place of something better but as yet unrealizable. In so far as the college can wisely admit into itself, for a time, the elements of a university education, it may have, and should have, so-called "optional" courses. But the education which most American colleges give is still chiefly of the secondary order and kind. This is necessarily so, because the opportunity for such an education as should already be possessed by every candidate for matriculation in university courses cannot be obtained in this country outside of the colleges.

The chief part of the present college curriculum, therefore, cannot wisely be made optional, for it belongs on the other than the university side of the college; it belongs to the secondary education. It is an indispensable part of that training which enables the youth, where universities do exist, to exercise such choice of subjects and teachers (*Lernfreiheit*) as belongs to the university education. To make this part of the college education optional would not advance us one step toward converting the college into the genuine university. My objection — and it is an objection which seems to me unanswerable, except by raising greatly the standard of secondary education outside the college — my objection to making the entire college curriculum elective is the necessary sequence of the facts. The freshman in the best American college, irrespective of his age and his wisdom, whether in his own eyes or in the eyes of others, has not had (except in rare instances) a secondary education of sufficient extent or thoroughness to fit him to enjoy the privileges of the university idea. Place the average Harvard or Yale student who has just passed his entrance examinations beside the German student who has just gone through with his *Abiturienten-Examen*, and compare the two. The latter is greatly superior to the former in respect of "general scientific culture;" he is even superior to the average Harvard or

Yale junior in this respect. However, we are rapidly approaching the time when we may make the secondary and relatively compulsory education end earlier than it now does — unless, alas! we lose our fast-ripening fruit by plucking it prematurely.

Into the question of the means by which to secure and guide the pupils' choice, I shall not attempt to enter. To permit the student who is really in the secondary stage of education to make up from term to term, or year to year, whatever *potpourri* he will of elective courses, is perhaps of all methods least likely to prove satisfactory. It should also be noticed that the effort to secure the right kind and amount of work in the secondary stage of education solely or chiefly by insisting upon "pass" examinations results in making "crammed" men instead of "formed" men. *Perverse studet qui examinibus studet*, Wolf used to declare. "The country of examinations," says M. Laboulaye, speaking of Austria, "is precisely that in which they do not work hard." But the remedy does not consist in abolishing all examinations, but rather in stimulating thorough teaching and in requiring from the pupil the preparation of daily and organically ordered tasks.

The question as to the amount and kind of knowledges and disciplines which are necessary to a "liberal education" is, both in theory and in

fact, closely connected with the development of the university. No one would think of claiming that the university man ought not in all cases to be a man liberally educated. But one essential part of the idea and practice of a genuine university education is freedom of choice, on the pupil's part, as to the kind, if not the amount, of knowledges and disciplines in which he will attain his scientific culture. If, then, any particular knowledges and disciplines are to be required as *necessary* for a liberal education, the enforcement of this requirement belongs to the secondary rather than to the university stage of education. In other words, if one hold that a "liberal education" should comprise a certain knowledge of, and training in, any branches of learning, one must also hold that such branches of learning should be rigidly required of the pupil in the preparatory school and early years of his college course. For, as we have seen, the preparatory school and the early years of the college course have hitherto constituted, and do still constitute, our means of secondary education in this country.

I have no hesitation in stating my conviction that a goodly amount of certain kinds of knowledges and disciplines is necessary for every education worthy to enjoy the distinction of being called "liberal." Therefore I am compelled, also, to hold that both the main courses of secondary edu-

cation should require of all their pupils at least a certain amount of particular kinds of mental acquirement and culture, as a prerequisite to entrance upon university studies. This amount should be notably greater than that now exacted for admission to our highest-class colleges. In my judgment, it should be even somewhat greater than that now attained by the average junior in such colleges.

It is at once objected, to the proposal to enforce a considerable amount of training in definite branches of learning and culture upon every pupil, that the number of modern sciences is far too great to require even a smattering of them all in the secondary education. And, it is added, a smattering of many sciences is equivalent to no science; it is even positively injurious to the mind of the learner, while the attempt to enforce it makes a *potpourri* of education which is quite as unreasonable as that composed for themselves by some of those pupils who enjoy the freest exercise of choice. All this and more is undoubtedly true in objection to a certain way of working the principle of compulsion through the whole of the secondary education. But I have not urged that a certain large number of particular sciences should be enforced in the secondary education of every pupil. I have only spoken of an amount and number of knowledges and disciplines which *are* requisite for such a secondary education as will serve for a

foundation to a genuine university education. If there is any such amount and number of studies, then we cannot successfully develop the American university without settling this basis of requirement upon which the development must rest. The settlement of this question will not take place, in fact and life, through the dictum of any one man —not even though that man be learned in the theory of education or in a position favorable for forcing his convictions upon others. The settlement of this question will come only in time (and perhaps in a long time), as a growing *consensus* of the opinions of those most competent in such matters. The opinion which I have to express shall be modestly expressed; at most, it is only one man's opinion, *except so far as it is in accord with the consensus of opinion* already formed on the part of the most competent authorities.

A "liberal education" seems to me to include, of necessity, a goodly amount of four great branches of human knowledge and discipline; these are: language, including literature; mathematics and natural science; the science of man as an individual spirit who feels and thinks and acts in relation to the world of nature and of his fellows, and to God; and the development of the human race in history. All education preparatory to the university should require these studies to have been already pursued liberally; but the edu-

cation of the university should leave every learner free to follow any special examples of one or more of them, according to his aptitude and choice. At the same time, even in the secondary education, a generous allowance should be made — as I have already said — for differences in aptitudes, in view of the twofold aim of all scientific culture. But this allowance should not be made subject to the choice of the pupil from term to term, or from year to year, — if for no other reason, still because a real continuity or organic and vital connection cannot be secured in this way for the different parts of the secondary education. Nor should the allowance be made in the form of a great variety of parallel courses among which the pupil must choose. This plan is open, though in less degree, to the same objection as the foregoing. Moreover, unless it is further limited, it does not secure thorough training in the four great branches of learning and discipline of which I have spoken. And, finally, it inevitably results in the repetition, in the small, of the same attempt at compulsory imparting of a smattering of many knowledges, of which the unrevised college curriculum in this country has been accused. The secondary education should, then, consist of required studies in all these four branches ; but it should be arranged in such a way as to be thorough in a very few examples under each, and it should be divided into

two great courses in which, by laying greater emphasis upon some one or more of the four, a generous allowance can be made for the pupil's aptitude. Further as to some of the details of this plan of a secondary education, which should be required as a necessary preparation for university studies, I shall speak later on.

Substantial agreement upon the points hitherto discussed will insure a good measure of agreement upon those which are now to follow. There need be little dispute, since the subject has in late years received so thorough an historical examination, over the essential nature of a genuine university. Since the American university must, in any event, be a "university," although it may have certain peculiar features which may be called *American*, the noun will set limits to the adjective beyond which the peculiar features cannot grow. What, then, is the norm according to which, and the ideal toward which, we must develop our higher education? In other words, what is the true university idea?

Although intelligent persons need not dispute over the true idea of the university, there is current a great amount of unintelligent opinion on this subject. One prevalent thought obviously is, that a university is a school, or collection of schools, where a great lot of subjects are taught and a great crowd of pupils go. And there are elements of truth in this opinion. A number of faculties and

free concourse of students, perhaps of many nations and from many places, are intimately connected with the university idea. But there are large schools, in this country and elsewhere, that are not universities; and there have been great universities with a relatively small number of students. The grade and method of the teaching, and the spirit and previous training of the students, are important factors in the university idea. Again, the *universality* of the university has been thought to consist in this, that the scope of its instruction should include all subjects; thus the idea toward which the American institution should strive is held to be that of a place where anybody can come to learn anything that can be taught anywhere. Now, historically considered, this view is absurd. The phrases in which the word *universitas* occurs, if thus interpreted, would (it has been pointed out) be equivalent to speaking of the university as "an institution for studying everything where they study nothing but law." Moreover, this interpretation of the word misses the spirit of the reality. For example, a school of veterinary surgery, or a school for learning to sing and to play the piano, may be a convenient adjunct or appendage of a university. But certainly neither of these schools can ever become an integral part of a genuine university. The study and teaching of comparative anatomy and physiology, or of zoölogy,

including the structure of those valuable domestic animals, the horse and the cow, is a legitimate and important part of a university. But such study must constitute a part of general scientific culture, and be conducted as such.

It is the *scientific* spirit to which the university education primarily appeals, and which it encourages; it is the large and free pursuit of science, as science, which it is bound to yield. This is true even of its professional schools. Even the study of surgery and medicine, or of theology, is primarily and pre-eminently scientific in the genuine university. For the same reason the call for chairs of "journalism," "telegraphy," etc., in the American university, and the complaint that our university instruction does not teach men to speak French and Italian, are both quite out of place. Journalism and telegraphy can never properly enter into the instruction of the faculties of the university, for they can never be regarded as broadly inductive or speculative sciences. The modern languages have no place in university instruction, except as they are used for the study of language and of literature, or are made the means of getting at other sciences through the works written in these languages.

The history of the word "university" has now been very thoroughly investigated. This history throws no little light on the meaning of the word,

the content of the idea. It is connected with the history of the term *studium generale*, which the word *universitas* came to supplant. "The name *studium generale*," says Savigny, "has been interpreted to intend the whole collective body of the sciences, but incorrectly. . . . The name rather refers to the extent of the scope of operation of these institutions, which were intended for pupils of all countries." "It meant," says Professor Laurie, "a place where one or more of the liberal arts might be prosecuted, and which was open to all who chose to go there and study, free from the canonical or monastic obligations and control." It was, therefore, a school of high grade, where the spirit of freedom, in both teacher and pupil, prevailed. It afterward came to mean "both a school for liberal studies and a school open to all." The word *universitas*, on the other hand, was originally applied to any association of persons acting somewhat permanently together. It has been said that, in a papal rescript, *vestra universitas* often means scarcely more than "all of you." As applied to a *studium* it came to mean a literary and incorporated community. But when these schools began to act under some express grant or character the two terms tended to become identical; and, finally, the word "university" came to take the other's place and to be exclusively used.

It appears, therefore, that the primary thing in the university idea, both in time and in thought, is the association in a certain way of the teacher and his pupils. "Universities," says Dr. Döllinger, "originated as free associations of respected teachers and eager scholars." This does not, indeed, sufficiently define the modern university, but it describes an essential and indestructible factor of it. Now, if we attempt further to describe the modern university in the light of the ancient idea, we find that it differs from the university of the Middle Ages chiefly with respect to the extent and variety of means in command for the realization of this idea. The idea to be realized, and the general conception of the method necessary for its realization, remain the same. The idea to be realized is the highest scientific culture of the individual, and the method deemed necessary for its realization is the right association of the teacher and pupil. The one word which, beyond all others, describes this method is "freedom."

The university teacher must have freedom in investigating and teaching; the pupil must have freedom in investigating and learning (*Lehrfreiheit* and *Lernfreiheit*). But freedom that does not degenerate into license is secured in the teacher by selecting a man of formed character, who has himself gone over the same path of patient, conscientious, wide, and deep research by which he

offers to lead the pupil. He still travels daily in this same path. The pupil, on his part, is free to choose his teacher and his subjects of research; and his freedom is secured, as much as possible, against license by his having been prepared for freedom through the rigorous training, under law, of the secondary education, and through the example and inspiration of his teacher and of the entire community of which he forms a part. He must learn to "know from experience," as says Professor von Sybel, "what is the meaning of emancipation of the individual mind, scientific thoroughness, and free depth of thought."

Such freedom in scientific research and teaching as the university uses to attain its end of the highest scientific culture is not, however, to be considered as separable from character. For, in the words of another German professor, "genuine science is the foundation of genuine freedom of spirit. Universities are, therefore, places for the formation of genuine freedom of spirit. They could not be this if they were directed in a one-sided way to the setting free and forming of intelligence. Freedom of spirit without the formation of character is not conceivable. Only the unity of the formation of intelligence and character is genuine freedom of spirit."

The true end of the university is, then, the highest scientific culture of the individual, and its peculiar

method is the most intelligent and highly trained freedom in research, in teaching, and in learning. This end and this method served at the beginning to distinguish the schools of the university order from the monastic and ecclesiastical schools; they may fitly serve still as setting the ideal to which the American university must conform itself. Writers so widely divergent in their views and ways of thought as Matthew Arnold and Cardinal Newman are in substantial agreement as to the end at which the genuine university aims. This end is not, then, primarily the preparation of the pupil for any particular employment or profession, or even for being a good and useful citizen in general. University culture, does, indeed, tend strongly to produce good and useful service of every kind, and good and useful citizenship; but this is its indirect tendency rather than its direct primary aim. For example, Professor Payne, in pleading for a science of education, reminds Englishmen of Sir Bartle Frere's conviction that "the acknowledged and growing power of Germany is intimately connected with the admirable education which the great body of the German nation are in the habit of receiving;" as well as of the declaration of a writer in the "Times": "I think the maintenance of our commercial superiority is very much of a schoolmaster's question;" and of the statement of another writer that "the Ger-

mans are outstripping us in the race for commercial superiority in the far East." These advantages of a liberal and university education, widely diffused, are not to be directly aimed at, for, like happiness, they are likely thus to be lost. They are to be secured as the indirect but sure result, so far as the university is concerned, of the attainment of its direct aim in the highest scientific culture of the greatest number possible, and especially of all those placed in positions where they are trusted and followed by the people.

Choice by the pupil as to what he will study, and as to where and of whom and how far he will study it, belongs of right to the university idea. The university itself, however, must decide how much of secondary education the pupil shall have in order to admission to its freedom, and also how much of the highest scientific culture he must attain to win the mark of its approval as his *alma mater*. Beyond these restrictions, the more generous the freedom permitted and encouraged the more worthy the compliance of the university with its own ideal. In so far as professional studies constitute an integral part of the instruction of the university, since the degree conferred upon the student of them is a guarantee of a certain amount of scientific culture of a particular kind, such studies may be prescribed. Yet even in these cases the same end and method must be adhered

to with the utmost possible strictness. A theological seminary or medical school where freedom of instruction and learning is not regnant cannot become a proper part of a genuine university; it must remain of the nature of a sectional, or monastic and ecclesiastical, school.

It is chiefly because the German universities most worthily realize the ideal of the highest free and scientific culture that they are confessedly superior to all others, — confessedly, on the part of the most thoughtful and well-informed educators under rival systems. "The danger of France," says M. Renan of its university, "consists in this: we are becoming a nation of brilliant lecturers and fine writers." "It is," says Professor Pattison, of England, "as if our universities were destined only to teach in perfection the art of writing leading articles." No one, however, would for a moment think of implying what is involved in remarks like these with reference to the poorest German university; for every university in Germany, by its theory and custom alike, undertakes worthily to realize this admirable ideal.

Supposing that those upon whom falls the task of developing the American university have grasped the right conception, the actual attainment of the ideal will inevitably encounter many difficulties. They have certain problems before them which are embodied in hard matter-of-fact. No amount

of fine writing or generous planning will do away with the necessity of encountering these problems one by one, and of giving them a progressively better and better practical solution. The whole condition of education in this country, as it stands in the minds of the people and in the existing educational institutions, from highest to lowest, is concerned in the development of the university. I shall treat of only two of these problems. But these two are perhaps the most difficult, and they are so closely related to each other as to constitute in some respects one and the same problem. They are, the present condition and future development of the secondary education of the country, and the constitution and fate of the American college.

No one would contend that the secondary education in this country is in a satisfactory condition. It is undoubtedly lacking in thoroughness, in balance, in organic unity, and progressive character. By the "secondary" education I now mean such education, in addition to that primary education required of every one by the State, as the university must require for admission to its privileges. But — as has already been pointed out — the whole circuit of secondary education is at present, in this country, divided into two sections, one of which lies in courses preparatory for college or for the highest-class scientific school, and the other in the curriculum of the college or of the scientific school.

This latter section is supposed to constitute the "higher" or highest education. Neither of these two sections of what, in its entirety, virtually represents the secondary education of the country — the education which must be required in preparation for the university — is in a satisfactory condition.

No one who is acquainted with the subject would think of claiming that (with a few exceptions) the high-schools and academies and other places for fitting youth for college are doing their work in a satisfactory way. This fact, however, is by no means wholly due to fault or deficiency on their part; indeed, education is so much of an organic unity that, if any of the stages or elements of it be defective, the deficiency is felt throughout all the subsequent growth of the entire organism. The secondary education is so unsatisfactory partly because of the condition of that primary education on which the secondary must be built. For, here again, no one acquainted with the subject would think of claiming that the public and private schools which start the process of education are in anything like a satisfactory condition. Probably the average public school of the primary grade is, on the whole, more effective than the average private school of the same grade. But what is the condition of the public schools of the primary grade in this country? To speak the truth plainly,

they are in many cases too much managed by political powers that have no kind of fitness for the work, and the instruction is too much given by immature girls who have themselves received no thorough education and who, far too frequently, teach only as a makeshift until they can secure release by way of marriage.

How, then, can the best and truly progressive secondary education be built upon a foundation laid by such hands under such circumstances? Substantially the same things are true, however, of a considerable part of the secondary education itself; only in this case the managing political powers come into contact with certain subjects which strike them with somewhat of the mysterious awe which belongs to all unknown subjects, and with a few teachers who make themselves felt as strong and thoroughly educated persons alone can. But, even in those subjects which are more especially selected as the knowledges and disciplines whose acquaintance must be made in a generous way before the youth can be ready for the freer and higher scientific culture of the university, the few really fit teachers must spend much of their time in teaching the pupil what he should have been taught long ago, but has not learned, and in helping him to unlearn a large part of what he has been taught. How can such a secondary education compare for a moment with that

given by teachers every one of whom has had a thorough education, and arranged in courses intelligently selected and organically united by the highest learning and skill?

The other section of the secondary education of the country — viz., that which lies within the curriculum of the college, or the highest-class scientific school — is also as truly, if not as largely and obviously, in an unsatisfactory condition. The best fitting-schools, whether academies or high-schools, are not infrequently better off, with respect to the character of their teachers, pupils, courses of study, and means for handling their courses, than are the greater part of our so-called colleges. Still, almost all the colleges are constantly making important changes for the better. No doubt the colleges of the first rank are, considering the material from which their pupils must be made, on account of the unsatisfactory condition of the early part of the secondary education, doing excellent work. I think it would not be extravagant to say that the American colleges are now giving to the average pupil a more thorough education than is bestowed upon any but their honor-men by any of the universities of Great Britain. But these colleges, too, are prevented, by certain conditions which lie partly within and partly outside of themselves, from doing the best work in the way of continuing the secondary education. Accordingly,

the best approach to a true university education which they can make at present is by way of offering certain elective courses as a part of the later years of the college curriculum, and by inducing a few pupils to gather for the purpose of pursuing so-called "post-graduate" courses. But in many cases (at least, with the exception of three or four institutions) these graduate (better so called than "post-graduate") courses are without satisfactory beginning or ending.

It is obvious, then, that the progressive reorganization of our secondary education — a subject full of many difficult practical problems — is an indispensable prerequisite or, rather, accompaniment of the development of the university. But since part of this education now lies, and for a long time to come must lie, within the college curriculum, the reorganization of the secondary education is connected with the fate of the college itself.

I will now briefly indicate the lines along which the work of reorganization should proceed. The entire secondary education should, as far as possible, be made into a connected and organic whole; and the aim should be to have it finished at the end of what is now sophomore year in the colleges of the first rank, or at the end of the entire required curriculum of the scientific schools of the first rank. It should be arranged in two great courses, both of which should be, in respect of all their

studies — what, how much, and what order — *carefully prescribed.* Both of these great courses should include all the four kinds of knowledges and disciplines which are considered as indispensable parts of a liberal education, and as necessary preparation for the range and freedom of university studies. But these knowledges and disciplines should be taught in different proportions by the two courses. The course which leans toward, or places the emphasis upon, language and the humanities should comprise no less of mathematics, and even more of the physical and natural sciences, than it now contains. It should comprise more, not less, of the classical languages, of both Latin and Greek, and of the literature and antiquities which belong to these languages. But these languages should be taught very differently from either that petty but strict way or that pretentious but loose way which have too much predominated hitherto.

The other one of the two great courses in this bifurcated secondary education should place the emphasis upon mathematics and the physical and natural sciences. As a condition of entering the higher scientific school there should be required no less of mathematics and the natural sciences than is now required, but there should also be required much more knowledge of literature and of at least one of the classical languages. The thorough study

of at least one of the classical languages should be an indispensable prerequisite of beginning the university education, because the study of language and literature is an indispensable requirement of beginning such education; and no other languages than Latin and Greek offer anything like the same advantages for the study of language as the medium of the spirit, and for the study of the spirit that moves in such written language as has escaped the envy of time.

It should not be objected to this plan that it will necessarily postpone too long the time at which the secondary education may be finished. For, given men of the highest cultivation to arrange and to teach the studies of the earlier portion of the secondary cultivation, and there will be no difficulty whatever in bringing youth, at the average age of seventeen, to the point where the college or scientific school now receives them. This is none too early for a boy to be as far advanced and as well trained as our students now are at the close of freshman year in the institutions of the highest rank. At least two years within college, and at least three years in the scientific school, will be required for a long time to come in order worthily to complete the secondary education. The aim and method of these years should be precisely the same as the aim and method of the preceding part of the secondary education; the studies, also, should be largely the same.

Into both of these great courses, whose primary aim is to teach the pupil to know himself and the world by enforcing "the general training and invigoration of the mind," there must enter at some time the other two of the four kinds of knowledge and discipline which compose a liberal education. These are, the knowledge of the individual human mind, and the knowledge of the development of the race in history. The former should include the subjects of logic, psychology, and ethics; the latter should comprise an outline sketch of general history and a more special study of one or more epochs or nations, in order that the pupil may have some real experience of the spirit and method of genuine historical study. Both courses of the secondary grade should include these subjects, though possibly in different proportions. With the right arrangement and better teaching of the entire secondary education, there would be no insuperable difficulty in accomplishing at the average age of nineteen or twenty all that I have indicated as necessary in preparation for the university education. Indeed, the pupil thus trained should be quite as well fitted for that freedom in research and learning which is the way to the highest scientific culture as the average graduate, at present, of our best scientific schools and colleges.

During all these years of secondary training no pretence should be encouraged in the pupil that he

is accumulating new and rare knowledge. Both teacher and pupil should understand that the latter is under the former as his *pædagogus*, to lead him to the higher freedom which is coming. Any attempt prematurely to introduce the methods of the university education, or to lower the standard of the education preparatory to it, will be prejudicial to the development of the true ideal of the university. For example, to lower the standard of minimum requirement for admission to college will have the effect of degrading the high-schools and academies which now fit youth for college, and of either diminishing the whole amount of the secondary education or crowding more of it into the college curriculum. It will doubtless, also, increase the inefficiency and carelessness of both pupils and teachers in reaching even this lowered standard. The similar attempt at Oxford resulted so that, in 1863, Mr. O. Ogle wrote to the vice-chancellor: "The standard has been sensibly lowered, and the proportion of plucks has sensibly increased." Moreover, to convert the college into an imitation of the university — especially in its earlier years, when its pupils and instruction are not, and cannot be of the university order — will secure only the temporary satisfaction which the bestowal of titles sometimes brings; it will postpone rather than hasten the realization of a worthy ideal.

The second difficult practical problem which

must be solved in order to the development of the American university is the fate of the American college. How this problem must be solved has already in part been indicated. Such of the education now required by the college as can justify its claims to be required at all in preparation for the advanced and free scientific culture of the university must be retained as a prescribed part of the secondary education. Such of the college curriculum as is now modelled after the university idea must be withdrawn from this curriculum, remodelled, and united with the so-called "post-graduate" courses; and the whole thus formed must be enlarged and raised to the standard of this idea. It will at once be objected that this plan will divide and alter the present constitution of the American college. I reply, precisely so; this is what must come to pass in the development of the university. But let it be observed that the destined passing away of the *present* constitution of the American college in no respect detracts from its past services or alters the propriety of adhering closely to its best elements in their present combination until the better arrangement of both our secondary and our higher education can be secured. Nor is a change of the present constitution of the college equivalent to an abandonment of the idea of college education.

There can be no doubt that the curriculum of

the American college is to-day in a condition of exceedingly unstable equilibrium. Such a condition is by no means wholly due to intelligent objections to this curriculum; but neither is it due to wholly irrational objections. The amount and kind of studies now required by this institution can by no means be clearly justified. The permission to elect, with respect to the amount and kind of studies to which it applies, is plainly given in many cases as a matter of accident or of temporary convenience rather than as a conclusion based on reason and experience. The result is that the present position of the curriculum of the American college is anomalous; and the higher the grade of the college whose curriculum we examine, the more anomalous is its character. Such a condition cannot be regarded as anything better than the best temporary expedient, — a creditable makeshift devised in the effort to advance, but not to advance too fast or in the wrong direction. Inevitably, those institutions which have admitted most of the university principle into their college courses have obtained the largest mixture of the secondary and the truly higher education.

At the same time that a variety of elective courses has been introduced into the college curriculum of our institutions of the first rank, the same institutions have been making the effort to develop a true university education outside of and farther up than

the college curriculum. In other words, they have instituted graduate courses open only to those who have the requisite amount of secondary education. The development of these graduate courses has encountered several almost insuperable obstacles. The most hard and obstinate of these obstacles are the following: the prevalent low esteem of the highest truly scientific culture; the excessive estimate of what is called "practical" in education — of bread-and-butter studies (*Brodstudien*); the poor condition of the secondary education, and so the impossibility of offering the best to even the graduates of most of our colleges; the impatience of our American youth and of their guardians, that is quite opposed to that quiet continuous growth which the noblest learning and mental discipline must undergo, etc.

It appears that those colleges which have found themselves in condition to enlarge greatly the university part of the college curriculum are, as a rule, the ones which have also done most to provide graduate instruction. But thus far even these institutions have been obliged to leave the two halves, as it were, of a possible university instruction, separated by the graduation from all study of most of their pupils at the close of the college senior year. These institutions must as rapidly and completely as possible unite the two thus far separate halves into a unity of the university

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kind; for it is to these institutions that the country should look for the development of the genuine university.

The methods by which the accomplishment of this combination of the *post-* and the *ante-*graduate elements of the university shall be brought about cannot, of course, be described speculatively in detail; but some hints concerning them, and concerning their probable working, are clearly in place here. I wish, in the first place, then, to call attention again to the inseparable connection which exists between the development of the secondary education, both within and without the college curriculum, and the management of that curriculum so as to develop the university education. And now let us suppose that the earlier part of the secondary education has been rearranged and thoroughly well taught; it will thus become perfectly feasible to put into the last two years of this secondary education — the two years corresponding to the freshman and sophomore in our colleges of the first rank — all the required work in physics and natural science, in history and literature, in logic, psychology, and ethics, which constitutes the staple of the instruction at present given in the junior and senior years of the college curriculum. Let the first five or six years of the secondary education be well arranged and well taught, upon the basis of a sound primary education, and let the last two or three

years of this education comprise subjects now reasonably required in our college curriculum, and let these last years be organically connected with the preceding five or six years, and then it will be perfectly feasible to prepare the average American youth at nineteen or twenty for beginning a *true university education*. Indeed, let the secondary education be properly reformed and duly elevated, and then the youth who has well accomplished it will be better fitted to enter upon a university education than is, at present, the average youth of twenty-two who has just graduated from a first-class American college. And the youth of twenty, thus well educated in the secondary stage, will be more likely to desire to have a university education. If he sees before him the offer of three or four more years of training and research, in subjects and under teachers that he may select with perfect freedom, he will probably wish to accept that offer. If he or his guardians have wealth or a competency, he and they will certainly be more ready to spend the money as well as the time upon his higher education, when it becomes clearer in this country what the best scientific culture means for the individual and for society. If he and his friends be poor, he will be more likely to be willing to struggle hard and to deny himself, somewhat as large numbers of German students do, in order to enjoy this highest scien-

tific culture. The choicest and most promising of these youths thus engaged in a university education may also be expected to do creditable original work, and thus enrich the scientific knowledge and literature of the country; and to institute valuable courses of instruction, and thus enrich the teaching of the university. And, in my judgment, it will be far worthier and more profitable for the country to raise at first a few, and then a larger and larger number, by the steps of a thorough, enforced secondary education, to the level of a genuine university culture than to bring the *name* of university culture to the level of those who are really only low down in the secondary stage of education.

This department of more general philosophical and scientific studies, to which the educated youth of twenty is invited, should be placed parallel with the courses in the professional schools in order to form the whole circuit of university education. Such relations should be instituted and maintained between it and the more strictly professional schools of the university as that each shall assist and enrich the other. In this way, on the basis of a secondary education attained at the close of what corresponds to the present sophomore year, the young man in the advanced academical courses should have the privilege, not only of selecting such of these courses as are most nearly akin to

his future professional life, but also of beginning the professional courses themselves. The young man in the professional school should also have the opportunity of enlarging the scope of his professional studies by free access to all the more strictly academical, the philosophical and scientific, courses.

But the question must be answered: What of the youth who has chosen to gratify his supposed aptitude for the knowledges and disciplines that deal with external nature, and who has therefore chosen the other one of the two courses into which the secondary education was supposed to become bifurcated? Is he to meet in the university courses on an equality his fellow-student who has gone by the other path and passed through the college curriculum? Yes; but only in case he and his teachers have complied with certain conditions. In other words, the secondary education now given by the scientific courses in the high-schools and academies, and by the succeeding courses in the scientific schools of the first rank, like those connected with Yale and Harvard universities, must enlarge and strengthen and amend its curriculum in order to fit its graduates for a true university education. It must enlarge and strengthen itself by requiring of its pupils much more of literary, linguistic, historical, and philosophical study, without diminishing at all its re-

quirements in mathematics and in the physical and natural sciences. It must amend the spirit of its instruction by putting away all contempt for classical and historical and philosophical learning, and all that pride which leads men to refuse the name of "science" to any knowledge but their own. Here, again, it appears that *the problem of the development of the university in this country is largely the problem of securing a satisfactory secondary education.*

Finally, it is plain that the development of the university in this country involves a marked and permanent differentiation into two classes of the higher educational institutions now in existence. The vast majority of the "colleges," so called, in this country should be content to remain *colleges* — that is, places which make no pretence to carry men beyond such secondary education as is preparatory to a genuine university education. To improve the secondary education which they impart, and to make it somewhat worthy of the idea connected in the minds of our people with the word "collegiate," may well satisfy their highest ambition. On the other hand, there can be no doubt that the great majority of the institutions now called "universities" should renounce both the name and the pretence of the thing. Only those few institutions that have already acquired large resources of famous men and established

courses and equipment for the highest instruction, and that can hope to draw from their own and from other colleges a sufficient constituency of pupils already trained in a thorough secondary education, should strive to develop themselves into universities. Large means for scientific research — libraries, museums, observatories, etc. — are indispensable for this development. A complement of professional schools, with their faculties, is also, if not indispensable, at least highly important. I venture to assert that not more than a half-dozen (?) universities should be developed in the entire country during the next generation, and that no new institutions to bear that name should, on any grounds whatever, be founded.

It is within lines such as I have drawn above, and by keeping in view the right high ideal while also grasping with a firm hand the hard practical conditions and limitations of the ideal, that the American university should be developed. All the details no man need undertake to arrange beforehand with authority. But every effort may guard against certain errors. And on this point let us recall the significant saying of Lotze: "There are no errors which take such firm hold of men's minds as those in which inexactness of thought and lofty feeling combine to produce a condition of enthusiastic exaltation."

THE PLACE OF THE FITTING-SCHOOL IN AMERICAN EDUCATION

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THERE can be no doubt that the present generation is experiencing a marked disturbance of opinion and practice in the matter of education. Other periods of sharp and sudden revolutionary action have occurred in this, as in all human affairs. But the reasons for the marked character of the present disturbance are not difficult of statement. We must indeed recognize a current widespreading dissatisfaction with everything belonging to the existing order, which, since its sources are somewhat hidden, we may attribute to the *Zeitgeist* — the inexplicable or unexplained mental drift of the age. But the enormous recent growths of all the sciences, the strong practical tendencies which urge the cry for what bears visible fruit in education, and the extremely varied interests represented in modern culture, are the more obvious causes of the prevalent disturbance.

Thus far it has been the schools of the higher and the highest learning which have chiefly felt the pressure of the oncoming of the so-called "new

education." Under this pressure these schools have largely changed the nature, increased the amount, and developed in variety the studies of their *curricula*. But the signs are only too plainly manifest that similar demands will be made upon the schools which lie lower down in the stratum of the secondary education.

Indeed, as it seems to me, upon no other stage of education is the burden of making all things "new" destined to fall more heavily than upon the fitting-schools of the country. By "fitting-schools" I mean such as *fit* pupils for the colleges and first-class scientific schools; and any educational institution or more private enterprise, in so far as it undertakes such preparatory work, is entitled to be called by this name. The intermediate position which every such school is, by its very nature, compelled to occupy cannot fail to confront it in the near future with a number of most serious problems. Back of the fitting-school, or rather at its base, lies the primary education, with all its many flaws, accumulated follies, and marked deficiencies. In this earlier stage we can expect little yielding to the pressure of the new ideas of compass, variety, and choice in education. The limits of change possible in such matters for the primary schools of the country will remain comparatively small. No variety of elective courses, and very little attempt at increased breadth, can

enter here. Whatever improvement is made at this stage must simply be in the way of securing more thorough and genial training of the child in the few subjects with which all education begins, and which every pupil is alike required to know. These schools, then, may be spoken of as the nether-stones of our mill of education; they will stand immovable on the lower side of the instruction of the preparatory schools. Or, to change the figure of speech, they will entail upon the preparatory schools all the deficiencies, follies, and weaknesses, of which they are themselves seized.

I have just spoken of the primary schools, with their imperfect but very stable work of laying the foundations of a common education, as the nether mill-stone on which the fitting-schools have to lie. But on the other side are the colleges and higher scientific schools; these have for years been steadily increasing the gross amount of their demands upon the fitting-schools, and now, under the influence of the new ideas of education, they seem likely to impose yet heavier burdens by a corresponding increase in the *variety* of these demands. The higher institutions may, then, not inaptly, be compared to the upper mill-stone in the educational mill. What is to prevent the preparatory schools from being ground fine between the nether and the upper stones? And yet *between* the two is the natural and only place for these schools.

Their difficulty is also greatly increased by the fact that they can scarcely hold most of their pupils long enough to do a thoroughly good work with them. The fact that the pupils come crude and unformed to such schools, even in all matters of the most elementary training, is coupled with the greatest haste on the part of the same pupils to pass through the intermediate stage of education, into the freer, larger, and more varied intellectual (and social and athletic) activity of the college.

And now let us consider separately each one of the three kinds into which the general grade of schools called "preparatory" may be divided. The case of the public high-school as a fitting-school is, under the present circumstances, exceedingly peculiar. Indeed, the very existence in the future of the public high-school in this country, not only as a fitting-school, but also in any shape whatever, cannot be predicted with much confidence. But at present the attitude and relations of the different schools of this grade toward the colleges vary greatly. In a few public schools the preparation given for college or for the scientific school is as good as can be obtained anywhere; in a somewhat larger number the influences are on the whole in favor of a truly liberal education. But in a very large and, I fear, increasing number of cases, especially in the West, the influence of

the public schools is decidedly adverse to a truly liberal education. In some places the teachers of the public schools constitute as a body a kind of organized monopoly, secretly or actively employed in keeping out of all vacated positions every college-bred man, and exercising all possible influence to depreciate a college education. I have personally been cognizant of a system of public education, inaugurated in a large city, where, in the higher grade of instruction the pupils were taught at the public expense to dissect cats, to accept *in toto* Bain's psychology, and to despise the Christian religion; but not one of them could learn a word of Greek without the expense of a private tutor.

With the present uncertainty touching the ultimate fate of the high-school before my mind, I have only two remarks to make upon its use as a fitting-school. First: The tax-payers and voters are not likely to consent much further to multiply the variety of optional courses to be taught in the high-schools at the public expense. Second: If they are not forced by political influences greatly to restrict the amount and variety of instruction which they at present aim to impart, the high-schools of the better quality in the larger places will probably see the propriety of continuing instruction in the classical languages.

In speaking of the public high-school as a fitting-school, it is not necessary to espouse either of two

tenable theories as to the basis on which our system of public education rests. If this system rests solely on the principle of self-preservation, one must hold that the high-schools of the country, as at present constituted, have no right to existence whatever. It may be argued that the preservation of the state requires that every citizen should have an elementary education; but it cannot be shown that to impart a little algebra, and a little chemistry, and a little music, and a little drawing, etc., is a measure of public safety.

But suppose one to hold (as I have little hesitation in holding) that states, like noble individuals, and like God himself, should not be satisfied with doing what is necessary to the bare preservation of existence. Let our theory be, that states, in the long run and wide extent of their being, should strive by collective action to nurture intelligence, intellectual variety, and beauty of multiform and high development, in as many as may be of their citizens. This they should do, both because it pays and because it is intrinsically noble. Let the theory of public education be a generous paternal theory. But even with this theory the work of expensive specialization of education at the public cost cannot be carried beyond a certain limit. That limit, it is the opinion of most thoughtful and observing persons, has been already reached, and perhaps passed. Still, it is my contention that

if the generous theory is to triumph, and the highly specialized high-school is to stay, no other of its courses have any better right to remain than those in the classical languages. There is no good reason why a high-school should teach its pupils to dissect cats, to accept Bain's or any other psychology, to read music and draw a little, etc., and at the same time banish Greek and Latin from its curriculum.

The case of the largest and best-equipped academies needs, in the prospect of largely increased demands that they shall furnish a more extended and varied preparation for college, scarcely any detailed consideration. Such schools will probably in time succeed in meeting well whatsoever demands are made upon them. If it should become necessary, they may perhaps develop into miniature colleges with curricula composed of several score of different courses, among which the youths who frequent them, of ages from twelve to eighteen, may exercise their option. That they would in this way really lay more satisfactorily the foundations of a truly liberal education, or even of one likely to fit men for success in the different businesses and professions, I cannot believe. And surely the burden of meeting these new demands would be very great, — too great for more than a very few of the more fortunate fitting-schools to succeed in carrying it.

The case of those more private enterprises which have hitherto furnished some of the best candidates for admission to our colleges requires even less of detailed consideration. This class of fitting-schools simply cannot comply with the conditions required by the full and consistent development of the "new education." The demand for instruction in German or French staggers a school of this kind; the demand for a curriculum including various percentages of physics, chemistry, more advanced mathematics, etc., would destroy it.

In general it is pretty obvious that the evolution of the new education, if it goes on in the directions in which its present indications are pointing, will bring upon the fitting-schools of the country such a severe application of the laws of natural selection that only a few of the fittest to survive will really succeed in surviving. At the same time, if they all survived, and were ultimately found reorganized in a form best to exhibit the type followed by this process, the result would, in my judgment, be far from satisfactory. For *the true principle of the secondary education does not call for the offer of a great variety of studies, either prescribed or elective, but for a thorough and long-continued discipline in a very few judiciously selected and representative studies.*

The relief which the fitting-schools require, in order to attain their true place in the system of

American higher education, must come mainly from the accomplishment of two results. The first of these is the careful organization of our entire system of education, upon the basis of an improved primary education, and in accordance with the principle of a natural twofold division of courses of prescribed studies in the secondary education. The second is a closer and more intelligent alliance between the two parts of the secondary education.

One thing greatly to be desired and striven after, as affording needed relief to the preparatory schools, is an improvement in the primary education. No one acquainted with the facts needs to be told how faulty is the knowledge of the most elementary subjects possessed by the average child of twelve or fourteen, whether he has been trained in a public or a private school. How blundering is his use, in speech, reading, or writing, of his mother-tongue! With how little real notion of what our good planet is, in structure and aspect, has he learned long lists of unpronounceable names of mountains, rivers, and cities — not to say hamlets and villages! For how many years has he struggled with the fundamental mysteries of number, and spent his time wearisomely in doing "sums," the like of which are not to be found in real life upon this earth, and, as we trust, not in the heavens above! And yet how often

does he stand stupid before the first demand to answer any practical question in arithmetic that requires a new combination of the " rules " !

As touching the general interest of the people, and the salvation of the nation — so far as its education tends to its salvation — nothing is more important than the proper and efficient conduct of the primary education ; and, as well, in the particular interest of the preparatory schools, few things are more important.

It is, however, to a systematic arrangement of all the courses of instruction taught in the years of the secondary education that I look with most confidence for lessening the difficulties and enlarging the success of the fitting-school. At present there appears to be no little danger of bringing the same trials and defects upon all the work of our academies and high-schools as those under which fell the orthodox college curriculum of some years since. But are there no principles which may enable us to classify the bewildering number of possible studies, and thus to select a few which shall alone serve to form the staple of a sound secondary education ? I believe that such principles exist.

There are four classes of subjects about which the human mind strives to obtain, and a wise system of education aims to impart, a truly scientific knowledge. These are : first, the world of

"nature," so called in the restricted meaning of the term; next, language, as the vehicle of the mind, and that product of choice thought and language which is literature; third, man as mind, with his ethical, religious, æsthetical, social, and political being all included; and fourth, human history, as the complex resultant of all the interacting forces involved in the first three classes of subjects. Now the secondary education should impart a goodly amount of clear knowledge of each of these four great subjects; and, of course, also of the peculiar mental discipline derived from the pursuit of each.

It should be at once admitted, however, that the aptitudes and tastes of human beings differ, and that some of their differences are very persistent, radical, and sure perpetually to recur among great multitudes of individuals. It can perhaps scarcely be claimed that men are born with an aptitude and a taste for geology, for astronomy, or for psychology and ethics. But it seems likely, if not certain, that some men do more naturally incline to those pursuits which require objective observation, to the studies of external nature, and others to the studies of the mind as known in self-consciousness or as expressing itself in language. This fact suggests, at least, the necessity for a bifurcation of the prescribed studies of the secondary stage of education. Not far from the beginning of this

stage, therefore, I would have an opportunity provided for a division in the courses of prescribed study. On the one hand, I would have the emphasis laid upon the study of language and of the so-called humanities; on the other hand, the emphasis should be laid upon mathematics and the natural and physical sciences.

But one thing more of this same general kind is sadly needed. Perhaps the most serious defect of the system of liberal education now prevalent in this country is its lack of a truly progressive character. It is full of fits and starts. It is too disjointed and fragmentary. This is partly because there are no settled principles of procedure, fixing the order and amounts of the studies; and partly because there is no power which can secure teachers that know precisely what they are expected, fitted, and permitted to teach. The consequence is that the different years of school-life too much resemble the different successive sessions of our legislatures. Milton somewhere describes the process of legislation as "hatching a lie with the heat of jurisdiction." Fortunately, the process also consists in killing the brood of lies already hatched by previous legislation. Now the process of education in this country is by no means so bad in this regard as the process of legislation; but in certain respects the former too much resembles the latter.

Let it now be supposed that we have so far made progress toward the millennium as to have some of these evils largely remedied. And surely this is not an extravagant or hopeless supposition. The preparatory schools would then receive their pupils, thoroughly well instructed in certain elementary branches, at the average age of twelve or thirteen years; that is to say, their pupils would already read, write, and spell in the English language easily and correctly; they would have finished arithmetic; they would have learned the principal facts touching the structure and position of the earth as a planet, and touching the natural and political divisions of its surface; they would be familiar with the outlines of the history of their own country. The instruction of the preparatory school should then extend over a period of about six years more; that is, from about the age of twelve to about the age of eighteen. It should be thoroughly organized, not with a view to furnish a large number of courses, whether prescribed or elective, but with a view to impart a thorough and progressive training in a few great and representative subjects. It should be bifurcated so as to prepare men with a general scientific culture which places the emphasis either upon a knowledge of language and the humanities, or upon a knowledge of mathematics and the facts and laws of nature.

In the foregoing way it would be possible, I con-

tend, for the fitting-schools of the country to accomplish much more and better work than is now possible. Indeed, if the results reasonable to hope for in the future were secured, these schools could send out their pupils as well educated at eighteen as they are now at twenty, that is, after being two years in college. Thus at least two entire years could be saved in the secondary education.

The valid objection to our present system of education, that it compels young men to wait too long before entering upon their more strictly university or professional studies, would be obviated in this way. The study of theology, law, and medicine, or that free pursuit of science which accords with the university idea, could thus begin at the average age of twenty, instead of twenty-two or twenty-four, as the case now is. But the university and professional education would then rest on a much better basis than is now laid at a later age. Moreover, the two or more years of time which would be saved could go where they ought to go — namely, into university and professional studies. This would give us far better-equipped teachers, physicians, lawyers, and clergymen.

There is one other matter of practical importance which needs much careful attention in order to lessen the burdens and increase the efficiency

of the fitting schools of the country. A closer and more intelligent alliance must somehow be effected between the earlier and the later parts of the secondary education. As the case now stands, this is equivalent to saying that the colleges and advanced scientific schools on the one hand, and the preparatory schools on the other hand, must enter into a closer and more intelligent alliance. The connections existing in reality between the instruction of the last years of the preparatory school and the instruction of the first years of college are much more intimate than those existing between any other parts of our entire system of education. As the courses of instruction in almost all our colleges are now arranged, and as they probably will be arranged for a long time to come, the youth passes from the preparatory school to the college with no break whatever in the character of his education. He continues the study of the same subjects, in about the same way, for two years or more longer. His staple daily tasks in the earlier part of the secondary education were the classical languages and mathematics; they are the same now that he has achieved the distinction of passing under the college curriculum.

And indeed there is no good reason why the character of the instruction should be greatly changed when the youth enters college. There is

nothing magical about the age of eighteen, or about the fact that the youth has got into a school called by a different name from the one he has left. The real determining factors in the question of the subjects and the method of his study are the amount of his maturity and of his general scientific training.

The details of an orderly and progressive arrangement of the entire course of study during the years of the secondary education might fitly occupy the attention of a committee of experts. Such a committee should be chosen in part from the colleges, and in part from those fitting-schools that are most influential and most interested in the improvement of classical and scientific study. Any plan proposed by such a committee would be an incitement, though not a mandate, to better things. Moreover, it would be likely in time to commend itself to other colleges and fitting-schools not participating at first in the plan. It might result in affording great relief to the fitting-schools, and in largely increasing the efficiency of their instruction.

In conclusion it is well to notice that some such plan as has just been proposed seems to afford the only rational relief obtainable from the growing evils of that system of "cramming" which everywhere prevails in modern education. A "bitter cry" is being raised on all sides, not of the "out-

cast" but of those who are gathered into our elaborate, hard-working educational institutions. Parents, teachers, pupils, all join in the cry. The excessive specialization of modern life has invaded the schools of the land from lowest to highest. There is no doubt of the existence of a certain evil, and of more or less suffering under it. But whence is the remedy to come? Not from fewer hours of study per day, or months per year, or years spent during the entire process of education. Certainly not from attempting to impart a yet more shallow knowledge of the great number of studies already entering into the courses of instruction in all our schools. The remedy must be sought in the removal of such of those causes of the evil as admit of removal; and these are mainly two: the variety of subjects unnecessarily crowded into the few years devoted to education, and the poor character of the instruction.

That much of the school-time of youth is now wasted through excessive variety and injudicious arrangement of the studies, and on account of unskilful teaching, is proved, alas! only too well, by the experience of every intelligent observer. An illustration or two may not be out of place at this point. Not long since, an educated man made the attempt to assist his son in the preparation of the daily lesson in English Grammar. For some time the boy, who was twelve years of age, and

nearly ready for the high-school, had been settling into a condition of despair over this particular study. Meanwhile the boy's use of the English language had been, under the influence of the public school, steadily deteriorating. After rummaging a big text-book for more than an hour the father succeeded in discovering among the so-called "exceptions" what he considered the probably correct answers to most of the questions composing the lesson of the following day. These questions were afterward taken to a distinguished scholar, a student and teacher of language and philology. He could not answer them in any terms which would have satisfied the teacher of the boy or the author of the text-book on Grammar. They were then shown to the very highest authority on such subjects to be found in this country, to a gentleman whose attainments in the science of language are celebrated by the world of scholars. *His* answer to these questions was a strain of unmixed invective against teacher, text-book, and school-system which could tolerate such wasteful folly in instruction.

But such waste is by no means confined to the primary stage of education. Some years ago a professor of Greek in an Eastern institution visited the recitation-room of a Western college, where a class of sophomores were reading a play of Aristophanes. Only one of the class — and this

one a young lady from Massachusetts — made any serious attempt at a correct translation of the short lesson for the day. The teacher was evidently much embarrassed by the presence of the visitor, and at a loss as to what should be done with his pupils or their lesson. After considerable floundering he seemed to gather his classical learning for a supreme effort. This resulted in his propounding with due solemnity the following question: "Is the change from the stem *math* to the stem *manth* a phonetic or a dynamic change?" The class stared, but remained silent; the teacher looked even more embarrassed than before; the Eastern professor broke into a cold sweat through fear that the question might be referred to him — for he could not have answered it. The same question was asked a second time with deliberateness appropriate to so grave an inquiry; the result was unchanged. Then, after another long pause, this episode terminated with a solemn asseveration from the teacher: "It is uncertain." And so the hour dragged on. In all probability, no member of this class had been so trained as to recognize infallibly the simplest grammatical construction, or to translate at sight the simplest passages with a fair degree of accuracy.

Finally: we have no right to flatter ourselves that there is anything peculiar in the quality of the American boy which will enable him to dispense

with that long and patient training in prescribed studies which does so much for the German student in the secondary stage of his education. Indeed, there is so much flexibility and versatility in the present character of the American boy, and so much lack of stable institutions which have to do with education, that it is not possible to pronounce with confidence upon the question what his typical national characteristics will prove to be. At present it may be said that if the average pupil in this country is bright, enterprising, and inquiring, and is ready with a commendable reliance upon his own resources to skip from branch to branch on the tree of learning, and to pluck at an incredible variety of the flowers of knowledge in a short space of time, we are not so sure that he possesses certain other equally desirable qualities. These are the staying qualities, — the patience, endurance, and steady industry on which scholarship depends.

EDUCATION, NEW AND OLD

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THERE are few things more astonishing than the rapidity and apparent ease with which periods of conservative thinking and practice are sometimes followed by great and even radical changes. Opinions which have long been regarded as having the necessary quality of rational principles are at such times contested and discarded; practices that have come to be associated with sacred ideas of duty and of religion are deemed unreasonable and are abandoned. Indeed, in this generation and land of ours, such great and radical changes have become so frequent as almost to fail of exciting the astonishment they really merit. Moreover, there are few subjects — at least among those concerning which the world has commonly been supposed to have settled conclusions on the basis of a sufficient experience — that are just now in a more precarious condition than that of education. For tens of centuries the so-called civilized world has discussed and practised touching the question how best to train the young. For a less number of centuries a considerable part of the civilized world has been much at its ease in the gratifying

belief that it was answering the question wisely. But now the New Education, as brought to our notice afresh by Professor Palmer's article in the November number of this Review, claims to have made beyond doubt the discovery that the answer hitherto practically given must be almost completely reversed. The language used by the article alluded to is not a bit too strong to express the completeness of the proposed reversal. The New Education has avowedly thrown away an "established principle;" has organized a college "from the top almost to the bottom on a wholly different plan;" has wrought "a revolution like that in the England of Victoria."

It would be an error to suppose, however, that even so revolutionary a change in education should be denied fair consideration, on the ground that what seems to contradict a well-nigh universal experience cannot, of course, be wise and true. If the New Education should finally come to have matters according to its liking in all our educational institutions, such a change of custom would not be wholly without a parallel in the history of the subject. It would perhaps not be greater than the change which took place in the culture of Greek youth when the Sophists captivated them all by adding rhetoric and dialectic to the ancient disciplines of music, mathematics, and gymnastics. Nor can it be wholly forgotten that the ancient

classics only a few centuries since turned out much of the theology and metaphysics from the universities of Europe, in order to make a place for themselves as the *new* learning of the day. The truth is, that poetry, mathematics, and philosophy are about the only branches of human knowledge that have everywhere and in all times been regarded as studies indispensable to what the civilized world has agreed to call culture. Yet these are perhaps the studies which are at present least prized of all by that class of youth who are fired with the ambition to choose wholly for themselves a training suited to the so-called "practical life" of business, politics, journalism, etc.

Accordingly, we are not among those who, when startling new views are proposed in opposition to ancient convictions and customs, refuse to tolerate the possibility of such views being largely or mainly trustworthy. But, on the other hand, the advocates of the New Education can scarcely expect, in the exercise of fairness and good judgment, that a scheme which they admit to be no less than "revolutionary" should be hastily caught at for its novelty by thoughtful educators. Professor Palmer's description of the Harvard method calls upon us all to discard many cherished convictions; we may justly expect it to enforce its call with many and valid reasons. It asks for a large faith; we may ask of it some assured pledge that the faith

will not be misplaced. It seems to me, then, that little fault could be found with any educator of youth, whose mind worked in a moderately conservative fashion, if he should decline to estimate highly the detailed facts which make up the very limited experience of the New Education. In other words, I do not think that the trial of the Harvard method is yet old enough to be critically weighed and pronounced upon. It is true that the elective system was adopted there, to a certain small extent, as long ago as 1825. But until 1879 "some prescribed study remained" for juniors; till 1884 for sophomores. During only a single year have freshmen in Harvard College chosen a majority of their own studies. But it is precisely to making *all* of the last two years of the college course elective, and to giving *any* considerable play to the elective system in the earlier years, that the opponents of the Harvard method have most decided objections. For it by no means follows that, because *some* choice of his own studies is good for the young man of twenty-one or twenty-two years, therefore the *entire* control of his studies should be committed to the boy from eighteen to twenty. As to whether it is wise that freshmen and sophomores should be placed completely under the elective system, Harvard itself has, then, barely two years of experience; and for the upper classes only a few years more. No

graduates of the New Education have yet gone out into the world. But it will surely take more than one whole generation to prove what the real and final outcome of so profound changes in education is to be. Is it ungenerous toward progress when we declare that the experience of a single educational institution for scarcely a moiety of its four years' course — whatever that experience may have been — is a very inadequate proof of the desirableness of a "revolution" in education? We cannot sample the orchard by chewing the blossoms of a single tree.

Let it not be supposed, however, that there is reason to shrink from the detailed examination of the statistics with which Professor Palmer has argued the cause of the New Education. For one, I heartily thank him for them. They are so clearly and fairly presented, and so courteously urged, that nothing more in that direction can be for the present demanded. I am especially glad to have the affair of passing his article in critical review take so tangible a shape. It gives me a coveted opportunity to bring forward corresponding statistics which have *not* been formed under the influence of the Harvard method. It thus becomes a task definitely set me by the editors of the "Andover Review" to compare one college with another. I need not apologize, to remove any of that odium which almost inevitably attaches itself to

such work of comparison. The question of fact is raised by the previous article commending the so-called New Education: How does it work? What better way to answer the question thus raised than to compare the tabulated results (so far as such results can be tabulated) of the new method with those reached by a somewhat different method? I select Yale to compare with Harvard, as a matter of course, for I am a teacher at Yale, and can most easily obtain trustworthy statistics concerning educational affairs in my own college. Moreover, there is a certain fitness in comparing these two great institutions. Harvard is avowedly the only thorough representative of what Professor Palmer calls the New Education; Yale is certainly the leading representative of those more conservative tendencies in education to which what is called "new" is understood to be opposed. I shall, therefore, follow his argument from experience, point by point, showing how the results of experience here compare with those obtained at Harvard under its new method.

Before bringing forward statistics, and thus putting myself into the attitude of an antagonist or carping critic toward Professor Palmer, I crave the opportunity of expressing my sympathy and agreement with him on several important points. It is true that the world of science and learning has changed and enlarged with wonderful rapidity of

late. It is, of course, also true that both the matter and the method of education must change accordingly. The literary communication of nations is now such that no man can be the most successful student of any subject who is not able to use at least two or three of those languages in which the results of modern researches are chiefly recorded. The ancient classics can never again hold the same relatively great or exclusive place in the study of language, or as mental discipline. The new science, psychological and political, no less than physical, will certainly have its rights regarded. The subject-matter of education must change. It is also true that methods of education must change. The modern teacher stands in a different relation to his pupils from that held by the teacher of bygone days. He has a larger work than that of giving out tasks; he must rely on something more in his hearers than their reverence for his *ex-officio* dignity and their readiness to accept his *ipse dixit*. He must also stand in relations towards his pupils that are different from those which formerly obtained with respect to their discipline in manners and morals.

But it is simple matter of fact that all our most respectable educational institutions are recognizing the facts and truths to which I have just alluded, and are recognizing them in practical ways. Surely no most excessive admirer of Harvard and

its methods would think of denying that other colleges also have made a large place for the new sciences, are using improved ways of instruction with fresh enthusiasm on the part of both teachers and pupils, and have their eyes and hearts open to all that is going on in the wide world of science and learning. No one acquainted with Yale at present, as compared with Yale fifty or even twenty-five years since, could for a moment doubt that much of its education is worthy of being called "*new*."

With the ethical spirit of Professor Palmer's article I am also in the fullest accord; he meets a hearty response from the Yale method when he proposes to measure the success of education by standards that are strong and high in an ethical way. I, too, understand the end of education to be not merely information in certain subjects — few or many — of scientific or historical research, but, also and chiefly, control of the faculties, and vigorous, reasonable, symmetrical use of them for the attainment of worthy ideals. And if he will show me that the so-called New Education really does "uplift character as no other training can, and through influence on character ennoble all methods of teaching and discipline," I will not wait to be his ardent convert. It is precisely because of my fears that it will not accomplish this in the majority of cases that I am reluctant to accept the methods

it proposes. But Professor Palmer advances the statistical proofs that in very truth the method has already wrought to this desirable and noble end at Harvard. We are brought around, then, to his statistics in our effort to come into the fullest possible sympathy of view with his opinions. Do the statistics show, or even tend to show, the superiority of the method of education in force at Harvard, as compared with that still employed at Yale? I am prepared to affirm that they do not. I am prepared to affirm that, in all the matters which can fairly be said to be direct desirable results of the methods of teaching employed by the two institutions, the figures speak rather *against* than for the New Education. The various items of proof will be arranged for consideration in the order which seems most convenient, but all the points made by Professor Palmer will be covered before leaving the subject.

Among the various proofs of experience that the New Education is successful we find the enlargement and improvement of the prevalent student idea of a "gentleman." Students are proverbially influenced by consideration for "good form." It is no longer "good form" at Harvard to haze freshmen, smash windows, disturb lecture-rooms, etc. Such things as these are largely, if not wholly, at an end. Now the growth away from barbarous and rowdyish customs has characterized all the colleges of the land, — some of them to a greater, some to

a less degree. A marked improvement in these regards has gone on at Yale, until the more offensive forms of such misbehavior are matters of tradition and of the past. It could be shown by all the testimony possible to obtain on such a point that both the major and the minor morals of the students have steadily improved for the last twenty-five or more years. The relations between the Faculty and the students, instead of the old feeling of antagonism or division of interest, are cordial and tending to more and more of friendliness and co-operative work. This is perfectly well understood by the students themselves; it is remarked upon in their conversation and in the papers which they publish. But I should not for a moment suppose that the same kind of improvement had not taken place — at least to some considerable degree — in other institutions of learning; nor should I venture to attribute it largely to any peculiar method of education, either as partly elective or as largely prescribed. Such improvement is chiefly the result of the steady change in our civilization which has been going on, of better manners everywhere, of the gradual decay of barbarous and mediæval antagonisms, of the spread of kindliness and intelligence. It is also due, in special, to the fact that teachers and parents take a different attitude toward the young under their charge, and that the young themselves have a wider outlook on life. It

is also due to the fact that college Faculties have relaxed in many of their old severities and petty exactions, and have taken the young men — whether by some scheme devised or by the common consent of all hearts and wills — more into their confidence. It is also due to the influence of well-regulated athletic sports, which provide an outlet for the expenditure of that surplus vitality in which youth rejoices. The New Education has no monopoly in these improvements. Nor do I believe that it can show any advantage in these matters as compared with that blending of things new and old which is prevalent at Yale.

It is also claimed that the New Education has the stamp of approval in the special amount of popular favor which it has secured. It is shown that the period during which the new method has been on trial has been one of " unexampled prosperity " for Harvard, its representative. Rich men have signified their acceptance of it by generous gifts. Parents and sons have ratified the system, as may be seen by the increase of numbers which has taken place under its working. There can be no doubt that the last fifteen years exhibit a splendid record of growth at Harvard, both in numbers and in resources. But it will scarcely be claimed by Professor Palmer that all the generous gifts it has received have been designed to set the seal of approval from their donors upon its peculiar methods. Other sums of money,

even larger, have been given to found and rear institutions by rich men who had no ideas, either new or old, which they desired to perpetuate in a peculiar college system. Other colleges which have not adopted the Harvard system — except so far as some elective courses in a college curriculum may be said to be an adoption of the system — have also received bountiful gifts. During the last fourteen years the amount of gifts made to the university of Yale, either already delivered over or in the process of delivery by executors, exceeds $2,066,000; of this sum $928,400 stands upon the treasurer's books as cash paid in to the treasury since 1871; the remainder has gone into the "plant" of the university. During the same time the sum of more than $460,000 additional has been secured by bequest, to be paid into its treasury on the termination of certain lives. Meanwhile, its library has increased by 83,000 volumes. This more than two and a half millions may not, indeed, equal the sum given to Harvard during the same period. But it bears comparison with that sum so well as to raise the inquiry whether the prestige of the New Education with the long purses of the country is beyond question.

The increase of students is a more direct and appreciable argument. It certainly does go for something in showing how the popular favor is setting, at least for the immediate time. I can

readily see how young men of eighteen, if left to themselves, would incline to give the authority of their presence to the methods of the New Education. Still, it is by no means certain that the large accessions to Harvard for the past twenty-five years signify all that they might seem to at first sight. During the same period other institutions, not adopting its method, have likewise had remarkable growth; on other grounds than its adoption Yale has constantly grown in numbers during this period. Its growth as estimated by the average number of undergraduates, exclusive of special students (which I suppose Professor Palmer also excluded from his estimate), has been as follows: 1861–65, 533; 1866–70, 610; 1871–75, 704; 1876–80, 745; 1880–84, 792. It should also be said that probably no other college has rejected so large a per cent. of candidates for admission, or sent away so many for failing to keep up to its standard of scholarship.

Even the most recent statistics throw still more doubt upon the argument from the number of students. It is found, by counting the undergraduates in the last Harvard catalogue, that 591 of the 1061, or more than 55 per cent., are from the State in which the college is situated. Only 247, or less than 32 per cent., of the undergraduates of Yale are from Connecticut. Not only relatively but absolutely, more men come to the latter

than to the former institution from outside of the State in which it is situated. If, then, Massachusetts may be said to sanction the New Education, as yet the country at large cannot be said to have done so. It is not yet cosmopolitan.

But we shall better appreciate the statistical argument for and against the New Education if we compare figures concerning matters that may more fairly be held to indicate its direct results; and among them, first, the amount of regular attention given by the students to the college exercises, to lectures and recitations. Professor Palmer thinks it creditable to the method he advocates that, by actual count, under a wholly voluntary and wholly elective system, the last senior class at Harvard "had cared to stay away" only two exercises per week out of twelve, — that is, rather more than sixteen per cent. of the whole. Now the point of fidelity and regularity is of such supreme importance in the life of the student that I have taken especial pains to secure its statistics here; the reader is requested thoughtfully to compare them with the statement of Professor Palmer. At Yale this term, for the seven weeks for which the record is complete, the average per cent. of absence in the class of '89 has been 3.7 per cent.; that is, the average freshman of the Academical Department has been present 15.4 out of a possible 16 of his weekly recitations. This record includes absences

from all causes whatever; it includes 48 absences due to the illness of one man for three weeks, and several other cases of absence due to illness of the student or of his friends. The record of the sophomore class for the same period is even slightly better; for the average sophomore has attended 14.5 exercises per week out of a possible 15 required. The absences of this class have been only slightly more than three and a third per cent. It should further be mentioned that under the rules all tardiness at a recitation beyond five minutes and all egresses are counted as absences. Moreover, if the student chooses to be present without responsibility for being questioned, he has the privilege of doing so at the expense of one of his "allowed" absences. In the aggregate a considerable number avail themselves of this privilege. For an example of diligent attention to the business of learning, I think it would be hard to find anything superior to the following: On a recent week (in November) there were only eight absences in a division of 34 men, and three of these were so-called "cuts," when the student was present but not reciting. That is to say, the real absences were for that one division during the period of a week only a trifle over one per cent. It should be remembered, also, that no excuses are now given for sports, attentions to friends, minor ailments, etc.; and yet the average Yale freshman or sopho-

more does not avail himself of more than about three fourths of the six absences allowed him during a term to cover all such cases. Nor should it be inferred that the regularity of these seven weeks is special to any large extent, as being due to causes prevalent during the earlier part of the fall term of 1885. It is likely that the record for the entire term would make even a better showing; the spendthrifts who incur most absences on the whole, as a rule, use up their "cuts" early in the term. The officer in charge of the records assures me that, on looking over them cursorily, he concludes that the worst terms for some years past would not show more than five per cent. of absences in these classes. The amount of absence in the two upper classes is somewhat greater. There is good reason for this. The junior and senior classes contain more men who are of age, who therefore go home to vote, have private business out of New Haven to which they must attend, etc. Under the rules of the college they are also given one third more of "allowed absences" than the lower classes, — that is to say, eight in a term instead of six. But for all causes combined, exclusive of a few cases of sickness lasting more than a week, the irregularity of the junior class during the period under consideration was less than five and a half per cent.; that of the senior class only a trifle more than six per cent.

A comparison of the two systems as actually at

work in Harvard and in Yale shows, then, this remarkable fact: The irregularity of the average Harvard student is from a little less than three to about five times as great as that of the average Yale student. The former is off duty, either from choice or compulsion, rather more than sixteen per cent. of his time; the latter from less than three and a third to a trifle more than six per cent. Such discrepancy is remarkable. In my opinion, it is highly significant as respects the working of the two systems. Let the reader inquire of himself what its significance must be as regards preparation, both intellectual and ethical, for the work of life. Let any man in business or in professional life ask himself this question: What sort of work should I do, what success have, if I and my employees were absent sixteen per cent. of the entire time allotted for work? More particularly with reference to the life of education, let each one interested in the problem propose such questions as follow: What service would the public school or academy render which permitted an average non-attendance of its pupils amounting to sixteen per cent. of the entire time; or, in other words, reduced the school-days of the week to about four in number? Is there any adequate reason why a youth who is being trained to a life of faithful and patient work should, for a term of four years in the most critical period of his life, enjoy a freedom

from restraints which belongs to the well-regulated discipline of neither man nor boy? The average pupil under the New Education, if he has been properly fitted for college, has probably had no such liberty allowed him hitherto; unless he leads after leaving college a life of self-indulgence instead of successful industry, he will never have such liberty again. Is there any magic of morals which makes it best that he should for this particular quaternion be put "upon honor" in a manner different from that to which the rest of the working world is compelled? But it is at best the *average* man at Harvard who is off duty sixteen per cent. of his time; what, then, must be the amount of irregularity characterizing the more faithless half or quarter of each class?

I have no hesitation whatever in saying that it would be quite impossible for students to pass through Yale College who did not attend more regularly to their duties than the average senior under the New Education. Such students probably could not finish a single year. It must not be supposed, however, that attendance is exacted of the Yale student in such manner as to crush out all spontaneity of impulse, and make both recitation-room and teacher repulsive. Doubtless there is a considerable percentage of men in every college who find all mental work a hardship; with a few, the more and the more regular the work, the greater

their sense of hardship. But with the body of students at Yale the case is not so. Their spirit will compare most favorably with that which Professor Palmer describes as characteristic of the New Education. That they are not merely driven by severe rules to their tasks is shown by the fact that, as I have already said, the average Yale student does not avail himself of all his allowed absences. It is also shown by the fact that a considerable percentage of men, especially in the upper classes, are ready to take over-hours of work; this in spite of the fact that the required number of recitations at Yale is fifteen (or sixteen) per week, instead of twelve as at Harvard. It is further shown by the large use which the students make of the libraries. On this point, then, let us compare facts with the New Education. Professor Palmer considers it a triumph for "the system" that the extent to which the college library is consulted by the undergraduates has increased from fifty-six per cent. in 1860–61 to eighty-five per cent. in 1883–84. But for years past the average Yale student, so far as the statistics of the respective libraries show, has been more a reader of books than his Harvard fellow under the present high estate reached by the New Education. During the year selected for comparison (1883–84) the undergraduates of Yale drew from "Linonian and Brothers" alone 18,440 volumes; all but 76

— or eighty-eight per cent. — of the academical students, and all but 38 — or eighty-two per cent. of the scientific students used this collection of books. More than eighty-six per cent., that is, of all the undergraduates drew out to the average amount of 26 volumes each. As to the quality of the books drawn, no record is easily obtainable for this particular year; but the record for a previous year shows that more than two thirds were *not* books of fiction. Statistics just published for the last year show that the academical sophomores alone drew 4,139 volumes from this library; but the sophomores at Yale are denied all benefit from the New Education. The use of Linonian and Brothers' Library by the undergraduates, however, has been relatively decreasing, on account of the large increase in the use of other collections of books more recently placed at their convenient disposal. Noteworthy among such collections are the loan libraries belonging to some of the departments of instruction, — especially of political science, history, etc. Add to all these items the increasing use, by consultation on the spot and otherwise (of which statistics are not easily attainable), of the main college library, and we have an amount of voluntary literary activity among the Yale undergraduates which certainly need not shrink from comparison with the best results of the Harvard system.

Professor Palmer says truly that "the charge of 'soft' courses is the stock objection to the elective system." He is, therefore, at considerable pains to show how wisely the juniors and seniors on the whole make their choices, and with no predominating disposition to shirk hard work. I regret that we are not told more particularly just how the lower classes exercise their option. For it is as to the lower classes that our main contention exists. In order to make his case good, it must be shown that boys of eighteen and nineteen, on entering college without a knowledge of what their pursuits in life will be or of what in reality most of the studies before them mean, are competent to compose the entire subject-matter of their own instruction. On my part, I am prepared to affirm that for wise choice of elective courses far more maturity of judgment and knowledge of various subjects than belong to the American youth at such a time in his life are highly desirable, if not imperatively necessary. So far as I can judge, the choices of the Yale juniors and seniors show more taste for hard work than is developed under the new system. It is noticeable that no course in the classics or higher mathematics is set down as being a favorite with the two upper classes at Harvard in 1883–84. But 54 juniors and 181 seniors are reported as having taken courses in "Fine Arts" for the present year. At Yale this

term, however, 53 choices of courses in higher mathematics (calculus, vector analysis, etc.) have been made by juniors and seniors, and 179 choices in the ancient classics, 99 in Latin, and 80 in Greek, by the same classes. (I give the number of choices rather than of men, as indicating better the amount of interest taken in a given subject.) It should be remembered, also, that each of these choices involves responsibility for the performance of a daily task, as distinguished from cramming for an examination. I am unable to say that the Harvard system has no statistics to match these. But I have a pretty firm conviction that students who have been kept regularly at hard work in prescribed courses for the first two years of a college course will be far more likely to enjoy hard work in the later years of that course.

The last remark would, of course, hold true only in case the standard of scholarship were kept well up, and the instruction made bracing and attractive. I am therefore led to examine briefly two other excellences which Professor Palmer ascribes to the New Education. It is, he thinks, steadily raising the rank which is reckoned "decent scholarship." This is apparently proved by a comparative statement of the "marks" received by the average Harvard student in the different classes for the different years since 1874–75. I will say frankly, but without intending to cast the least

shadow of question over the sincerity with which the proof is offered, that I find myself unable to confide in it. I should not think of trying to compare the statistics of the *marks* given under any two systems; or even — for that matter — under different decades of the same system. The marks of the average student are, of course, higher under the elective system. One reason is to be found in the fact that so many students choose their electives with reference to the marks they expect to attain under the chosen instructor. The teacher, as well as the pupil, is known by his marks. And it is more of a test of a pupil's real merits, *under the elective system*, to inquire how many courses he takes under teachers that give hard work and low marks than how high a mark he is able to attain by judiciously choosing his courses. Under a system of study largely prescribed, the various eccentricities of the instructors in marking nearly cancel each other. But under a system wholly elective the comparative statistics of the marks are quite worthless to indicate the grade of real scholarship secured.

I feel some hesitation about extending my comparisons so as to cover one of the points which Professor Palmer has made. He testifies to the improvement which the New Education has wrought in the spirit and work of the instructors themselves. His testimony is, of course, to be

accepted as conclusive upon this point. I should be very loath to admit, however, that the kind of spirit and method which he justly considers admirable in the teacher are inseparably connected with the system in vogue at Harvard. It seems to me that a teacher who suffers himself to grow dull and slack because his pupils must come to him whether or no is scarcely fit to be a teacher under any so-called system. Certainly there have been not a few inspiring instructors in our American colleges before the New Education was discovered. Is it at all likely that there will be only a few poor ones in case the triumph of the New Education is everywhere secured? Is it not even possible that certain methods of instruction may in time be developed by a system that makes so much depend upon the favor of those instructed which will not conduce to the highest efficiency in education?

A word of personal experience will be in place at this point. I cannot follow Professor Palmer, who looks back upon his college days and feels that more than half his studies should have been different. The studies in my college curriculum were wholly prescribed; they included the ancient classics in junior year, and calculus, both integral and differential. Like him, I was especially fond of Greek and philosophy; but I studied calculus with more carefulness on that very account. I

learned to do patiently the things set me to do; to work hard and wait for the reward; to conquer every task — whatever it might be — before leaving it. And I would not give this bit of learning for all to be got from the most attractive elective courses of both Harvard and Yale.

But it is full time to recall thought to the real matter of disagreement between Professor Palmer and myself. Toward the close of his article we find the remark that, for lack of room, he cannot explain at length "why the elective system should be begun as early as the freshman year;" it is added, "surely not much room is needed." But, as I understand the matter, this is precisely what requires most room, both for explanation and for argument. In common with most colleges, Yale now permits considerable choice in the last two years of its curriculum; the elective courses now constitute eight fifteenths of the junior year, and four fifths of the senior. No choice, with the exception of one, between French and German, is permitted in the first two years. Now, of course, the question is entirely reasonable to ask of one who, like myself, approves heartily of so much of the elective system, Why not accept it throughout in the form adopted by Harvard? Why draw the line between sophomore and junior years rather than between freshman year in college and the last year in the fitting-school? Why prescribe

any courses for the last two years in preference to giving the student full range for the exercise of his preferences? The reply to these questions might be given with an indefinite amount of detail. This whole question, like nearly all those questions which most perplex our human life, is one of drawing lines and making distinctions. Probably all will admit that lines must be drawn somewhere. There comes a time, that is to say, when the boy may be left more and more to direct himself, — as in other matters, so in the subject-matter of his education. But for years the boy, in order to learn how to study and how to make right choice of what he will study, must be kept in prescribed lines. Infants cannot decide whether they will learn to read or not. Small boys cannot be left wholly to decide whether they will study grammar and arithmetic. Older boys and youths and young men, whatever they undertake in the education of themselves, find a great fund of previous experience and established custom hemming them in and restricting their perfectly free choice. The average college freshman ought not to desire, and he is not capable of exercising, such choice in so grave a problem as that of determining all the further subject-matter of his education.

In the matter of assuming full political rights and privileges the State requires the youth to have reached the age of twenty-one. I do not suppose

that there is anything magical about this particular number. Some young men would be ready for suffrage earlier; some men are never really ready for it. But a line must be drawn somewhere. And certainly, after the youth has spent two years in the drill of college life, he is much better fitted than when he enters for exercising his choices in respect to the rest of his education; but then only in a limited way. Professor Palmer, however, thinks it almost self-evident that when the boy leaves home, at about eighteen years of age, is the best time for him to begin to say what he will study; and that, all at once, and from that time onward, he should have the entire say. It seems to me that the very fact of the new surroundings with which college life begins is an argument the other way. After the youth has developed awhile in his new surroundings, has adjusted himself to them, has learned from experience in them how matters pertaining to study go, and what the different courses opening before him are, then, and not till then, should he be summoned to the grave task of deciding. It is better, too, that he should be introduced gradually to the responsibilities of deciding. A headlong plunge into freedom is not a real good. Moreover, I am one of those who still believe that an educated man should be trained to some good degree in each of the four great branches of human knowledge, — in language, including lit-

erature; in mathematics and physical science; in the history of his race; in the knowledge of the human mind in its relations to all else. It is, then, precisely because I do not believe that the New Education draws its lines in the right place that I am opposed to what I regard as its extreme measures and not well-guarded ideas. In an enlarged use of option for the later years of college life I do believe; but my belief in the elective system at all in the American college is not so strong as my distrust of the lengths to which it is being carried by the so-called New Education.

There is one argument of Professor Palmer which is so much a matter of taste and impression, and so little a matter of statistics and logic, that it is not open to discussion. I refer to his conviction that a better type of manliness is developed at Harvard in the students than is to be found in other colleges that have less completely adopted the principles of the New Education. In behalf of my own pupils, and on the ground of careful observations, I will simply say, — I do not believe that any manlier men than those at Yale are to be found in any college in the country.

Upon the subject of cultured manliness in the undergraduate student, I find myself holding the same ideal as that presented by Professor Palmer, but differing from him considerably in my judgment as to the best way of realizing it. It seems

to me that he has left the great ethical law of habit, and the immense value of the pressure of immediate necessity, too much out of the account. We want, indeed, to train the young to make right choices, spontaneously, and with a generous love of duty. But none of us live under the sole influence of high ideals set at some remote distance from us. Day by day we choose to do our tasks because the hour for them has come, and the immediate pressure of the environment is upon us. Shall the physician go to his office when the hour comes? His patients are there in waiting. He is expected daily at the appointed hours, — and not merely eighty-four per cent. of these hours. Shall the clerk be at the store, or the book-keeper at his desk, when the hour for beginning business has arrived? He *must* be there: not because he will suffer physical torture if absent; nor yet because he will finally discover that much absence for many years has not, on the whole, been for his best interests. He must be there because he is living under a system which makes it for his immediate interest to be there; and, indeed, has been so trained under such a system that he scarcely contemplates the possibility of not being there. Under a system of education which kindly but firmly invites men to *choose right*, in view of consequences that fit close to their daily and hourly lives, the best character will be trained. It is most like the divine

system under which we live as bound together by associated action.

The ground of Professor Palmer's argument from experience has now been pretty well traversed. I am quite content to leave the facts and impressions on both sides to be weighed by all who may be interested in such discussion. In closing I shall express — in the name of the great majority of those engaged in the practical work of education in this country — some of the fears felt as to the ultimate results of the New Education. These fears are not bugbears, incontinently and obstinately opposed to the fair spirit of progress; they are honest and strong fears.

We are afraid that the New Education (meaning by this the method in use at Harvard) will increase the tendency to self-indulgence and shallowness, which is already great enough in American student life. A smattering of many knowledges, hastily and superficially got, is the temptation of our modern education. The chief remedy must be in a selection of certain topics to be pursued with large persistence and thoroughness by all those who choose to associate themselves for purposes of common study. If the average American boy, on entering college, had had a discipline, and had made acquisitions in a few lines of study, at all equalling the results reached by the German gymnasium, he might

more safely be left to choose for himself. One's eyes must be already well opened to hop about, fetter free, from twig to twig, upon the tree of knowledge. But our freshman has had no such mental discipline; he has made no such acquisitions. The graduate of a German gymnasium knows, indeed, more of some subjects than the majority of the professors of the same subjects in not a few of our so-called colleges. Two years more of continued study in prescribed lines is certainly little enough. [It will be noticed that this statement is quite independent of any opinion as to *what* should be taught in fitting-school and early college years; it implies only that *something* should be secured as thoroughly taught.]

We are afraid of the effect of the New Education upon the academies and fitting-schools of the country. Slowly but steadily the quality of the work done in the preparation of boys for college has been improving. The colleges have continually made increased demands upon the preparatory schools; these schools have been continually responding better and better to the demands made upon them. But now they are to be called upon for a bewildering variety of "courses." How shall they meet the demands made upon them by the many ways amongst which a boy may make his choice to enter the college doors as thrown open by the New Education? What interest will boys continue to take

in the mathematics and ancient classics of the fitting-school when these pursuits are required simply to get into college through one of these many doors, and are then liable to be abandoned as soon as the goal of free election has been attained?

We are afraid of the effect of the unrestricted elective system upon the higher education of the country. The standard of such education has constantly been rising for many years. The old methods were, indeed, faulty in many particulars, — in some inherently so, in more as a matter of accidental and temporary application. Yet, after all, they gave something that had a definite and tangible value. The new methods, in themselves considered, are better. The new learning and science are, of course, infinitely richer and broader than the old. In order to introduce them to the college undergraduate, however, is it necessary to take everything as respects the subject-matter of his education out of the direct control of the older and wiser party in the transaction, and commit it to the *choice* of the younger and more inexperienced? If this is to be, how will it not affect, almost disastrously for a time, the interests of the higher education? There are, to be sure, many ways of being educated: there are already many schools giving different quantities and kinds of knowledges and powers of action. Hitherto all ways and schools have invited the choices of the men who

have attended them only in a general way. They have said, virtually, If you choose me, you choose a certain kind and amount of discipline in knowing and doing, and you must abide by your choice. We know how, as respects both matter and manner, to reach the end better than do you; we will, in the main, choose the path for you. But what of connected, steady discipline in certain lines will a higher education come to represent in this country if the so-called "new" method of giving into the hands of the pupil all choice of subject, from one short period of education to the next, is to prevail?

Finally, we are afraid of the effect of the New Education upon the character of youth. We are still afraid of the very issues in which Professor Palmer finds his arguments for the benefits of the system he approves. It is not enough to show that some improvement in various particulars has taken place in student character and student life at Harvard since this system was most completely put in place there. I think I have shown that in every respect, except the one of securing $175,000 instead of $250,000 a year, and of making a smaller percentage of annual gain in numbers, the results of the system still in vogue at Yale are equal, or superior, to those at Harvard. The argument, from an experience of one or two years in a single institution, does not quiet the fears which are grounded in old-time convictions and common in-

stitutional customs that have their roots in many centuries. We need much more light, both from reason and from observation, before we can see our way clearly to prefer the so-called "New Education" to one which is, in our judgment, wiser, although both new *and* old.

THE ESSENTIALS OF A MODERN LIBERAL EDUCATION

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I BEG permission to preface the main body of this address with two remarks, partly apologetic and partly explanatory. The subject brought before you this evening may seem to some quite lacking in that freshness of interest which promotes a flow of novel and entertaining thoughts. Only last February 20, in this city, an elaborate report from a number of experts was presented which dealt primarily with studies in elementary education. This report, however, suggested important modifications in that subsequent training of the smaller number which is traditionally esteemed worthy of being called a liberal education. And for some years past, not only in this country, but in France, in Germany, and even in conservative England, discussion has been rife over the order and the character of studies proper for collegiate and university students. In spite of writings and speeches innumerable, on the part of men and women most competent or very incompetent, it can scarcely be claimed by the non-partisan observer of this contention that agreement has been

reached even upon the more important and fundamental of the numerous considerations involved. Yet how important it seems to us all to have some settlement of the contention! For the children of to-day will not meantime stop growing into young manhood and young womanhood; and the youth of to-day are constantly being converted into teachers of the generation following them.

The other remark which you will please consider as a part of my preface is the following: Education is one of those subjects which, from their very nature, do not admit of a very close approach to demonstrative argument. Neither from history, nor from our knowledge of nature and of the human soul, nor from study of the details of experience in the past, can we construct a science — strictly speaking — of education. Pedagogics will probably never hold a place among the exact sciences. We may, however, form comprehensive and defensible opinions on this subject; and these opinions will be the more entitled to respect and acceptance, as the mind holding them is itself genial and truly liberal, and is also acquainted with the truths of history, of nature, and especially of the human soul. I close this remark, then, by saying that, without pretence of drawing irresistible conclusions, much less of infallibility in argument, I merely offer for your friendly consideration some of my opinions.

But first of all let us see clearly just what the question before us really is. For I cannot help thinking that, while the spirit in which it is debated and the inducements brought forward are often much too narrow, the question itself is rarely defined with sufficient limitation. As to the very meaning of the question, then, I offer these three statements: —

It is a liberal education the nature of which we are briefly to discuss. Now this term necessarily implies some sort of differentiation. Freeing it, as far as possible, from all false pride and also from jealousy and unreasoning opprobrium, the term must be held to signify something more than *mere* education. It must signify — let us frankly confess — education for the few as distinguished from education for the great multitude, or for the very many. The public schools, then, however supplemented by private generosity, cannot reasonably be expected to provide the body of the people with a liberal education. I wish this declaration, however, to be considered as different from the important and closely connected practical question: "What part should the public schools take in starting a few selected pupils on their way to a truly liberal education?"

Neither is a liberal education properly a technical education, such as our manual-training and trades schools, our business colleges, and even most of

our so-called scientific schools, aim to give. This may be admitted without in the least depreciating the character of the training given by these schools, or the value of the results which many of them produce. But if we mean anything distinctive by the words, "a liberal education," it is something more than such an education as these schools furnish.

We may now come closer to the meaning of the phrase by laying emphasis upon the word "liberal." Of course this word once meant, in this connection, such an education as befits a free man or a gentleman. On this account there is still clinging to our usage something of pride on the one hand, and of jealousy and odium on the other hand. For are not all men now equally free; and where is now the class of gentlemen, unique and distinctively so-called? By a justifiable turn of meaning, however, a "liberal education" may be defined as that which makes the free mind, which furnishes the liberalizing culture of the trained gentleman. And here it must be remembered that all specialists' studies have their peculiar prejudices and peculiar temptations — almost irresistible — to particular forms of narrowness. A truly liberal education ought therefore to tend toward the setting of the mind free from all classes of scholastic prejudices. It ought to work in the direction of freedom from the philologue's narrowness, from the "scientist's" narrowness, from the circle of

such illiberality as distinguishes the mere student of economics, or of social problems, of psychology, or of theology.

But, again, I am to speak of the "essentials" of that education which is worthy to be called liberal. Now, amid wide disagreements as to what and how much the constitution of a liberal education involves, and as to the order and proportion in which its studies should be taken, there prevails the universal assumption that some things are entitled to be considered indispensable factors in this constitution. Important changes have undoubtedly taken place in opinion on almost all the subordinate points under discussion. The old-fashioned, substantial agreement as to what are essential subjects of instruction in this particular form or degree of education has been of late largely broken up. There is even more diversity of view as to how far subjects admitted to be essential should be carried before specialization in non-essentials is permitted or encouraged. Scarcely any two curricula in any of the institutions in this country which design and claim to afford a truly liberal education, precisely agree. Yet, theoretically, all are agreed as to the validity of a distinction between essentials and non-essentials. And, practically, certain subjects are everywhere required, at least to some extent, in the earlier stages of this form of education.

Once more, let it be borne in mind that the very inquiry as to what a "modern" liberal education should be admits the propriety, and even the necessity, of making changes in many of the factors of such an education. And here I must insist upon a distinction which has been of late almost wholly overlooked in all discussions of this subject. This is the distinction between a truly modern education and the recent great extension of the elective system in the education offered by the higher institutions of this country. That kind of freedom, or "liberality" if you please, which gives to the youth under education the choice of his subjects of pursuit, and largely of the order and manner of their pursuit, has been carried among us to an extent which astonishes the European students of educational problems. But neither the exercise nor the withdrawal of this freedom in itself determines the question whether the student is receiving a genuinely modern education. What is necessarily implied in this word "modern" I shall try to make clear in another connection. I now wish only to say that the term signifies some kind of change which shall adapt the so-called liberal education to the age, but that the particular kind of change required is by no means necessarily to be reached through an elective system.

And now as I inquire, "What, then, are the

essentials of a modern liberal education? What studies must be pursued in order to secure, as far as possible, the truly free and cultured mind in accordance with the actual conditions of modern life?" I find no insuperable difficulty in making up a fairly defensible opinion. For amid many and conflicting changes, all is by no means changed. History still lies back of us with its great lessons there, although we must undoubtedly take pains in reading them into clear and convincing formulas. The primary and essential facts and laws of man's environment — what we call nature, in which human nature has its setting, and in which human life develops with a certain reciprocity of influences — also remain the same as ever. And the soul of man, that which is to be educated, — the real being whose culture to the point of highest freedom and perfection it is hoped by all changes in processes the better to attain, — the soul of man is not essentially different in this boastful nineteenth century from the soul of man in the so-called "Dark Ages," or when Plato and Aristotle undertook its informing, purifying, and elevating.

From history, from nature without, and from the nature of the mind, I think we may confidently derive a body of rational conclusions as to what are the essentials of the most modern liberal education, or of all truly liberal education. And now,

without making any show of argument, deductive or inductive, as though you could not avoid being convinced and agreeing with me, I will frankly state my own opinions and some of the reasons which, in my own reflections, support them.

A truly liberal education includes, I think, as essential to it, the prolonged and scholastic pursuit of three subjects, or groups of subjects. These three are, language and literature, mathematics and natural science, and the soul of man, including the products of his reflective thinking. Any education which is markedly defective on any one of these three sides comes, so far, short of being liberal, — of being, that is to say, the kind of culture which sets the mind most truly free, and which is worthy of the cultivated gentleman in the nobler meaning of that latter word.

It is difficult indeed to separate the scientific study of literature from the study of history, or to separate the proper pursuit of philosophy from the study of both literature and history. But in a qualified, though meaningful, way we may declare that the supreme expression of human mental life is in literature, — of man's life, that is, of thought and feeling. To get the supreme expression of man in action, in the exercise of those activities which we somewhat loosely call practical, we must turn to the study of history. But literature is, of course, a certain form of human

language, put on record so that the thoughts and feelings thus expressed can remain for other generations of thinking, feeling men to contemplate sympathetically and yet critically.

Language, then, is the only pass-key to literature; and to be a cultured student of language is the only possible way to possess the key which unlocks the treasure-house of literature. You will notice that I have used this important word in the singular number. I have not said that a liberal education includes of necessity the prolonged scholastic study of many languages, much less the glib-tongued use of many languages. It is undoubtedly a very convenient thing in these days to speak in several of the principal forms of human speech; it is even, if you please, a pretty accomplishment quite worth spending some years of time and some thousands of dollars upon. But it is not an essential, it is not even a very vital and impressive, part of a truly liberal education. The empty-headed hotel clerk, the boorish globe-trotter, the frivolous boarding-school miss, may have this accomplishment of languages, and not have the first rudiments of a liberal culture in language.

When, then, I speak of the prolonged and scholastic study of language as an essential of a liberal education, I have reference to acquiring the science and art of interpretation and the cognate science and art of expression. For the apprecia-

tion of literature can never come by mere untrained reading: I do not care to what kind of literature, or in what language expressed, you apply my denial. He who has made no such study of language as a liberal education implies cannot enter the inner temple of literature, he can scarcely cross the threshold of its outer courts; for the key to the temple is the knowing how to get at the meaning of any literature; and the knowing how to get at the meaning can only be acquired by the study — not of many languages as many, necessarily, but of at least some one language as the supreme expression of human thought and feeling.

In order to illustrate and enforce my opinion I turn somewhat aside for a moment to the current discussions over the place of the ancient classical languages — especially of the Greek — in a modern liberal education. The larger part of the arguments used against continuing these languages in the place they have formerly held seem to me beyond all doubt justifiable. The answers which the defenders of these languages have most employed are scarcely sufficient to ward off or to foil the attacks of their opponents. At the same time I most firmly believe in keeping the ancient classics substantially where they have been in the scheme of a truly liberal education; and I do not believe in the proposed substitution of any of the

modern languages for the ancient classics. These seemingly conflicting sympathies I harmonize by answering the inquiry, why Latin and Greek should be required, in a way far more satisfactory to me than that followed by the classicists themselves. The ancient classical languages, and especially Greek, are, on account of their very construction and on account of the superiority of their equipment, by far the best media for the study of language, for the acquiring of the science and art of interpretation, for the possession and use of the key to literature.

It seems to me that very insufficient account is customarily made of the difference between the man who has enjoyed and improved this part of a liberal education and the equally intelligent and serious man who is lacking here. The latter can never, try as hard as he may, read a choice piece of literature, of any sort or in any language, as the other readily can. The value of studying Greek, under skilful and judicious teaching, is not set at its highest even when we consider how choice are the stores of Greek literature which are thus opened to the student, if only he can master — a thing possible to only a few professors of Greek in this country — the language so as to move about at all freely in its literature. That value is rather seen at its highest when we consider how in this way a man may be best trained

in skill and interest really to get at a good piece of literature in *any* language — even in his own language.

An acquaintance of mine had some years ago a confidential conversation with the public servant to whom had been committed, for a long period of years, the engrossing of the bills proposed by the successive ministries of one of the most powerful and intelligent nations on the face of the earth. This work this official had done for two prime ministers, one of whom was a classical scholar, the other a man of literary training and tastes, but without a liberal education in language study. The clear-cut, intelligible, interpretable character of the bills drafted by the former were, as a rule, in marked contrast with the confused, uninterpretable, but "flourishing" style of the latter.

As a rule, the Japanese cultivated classes acquire the speaking and writing of foreign languages with an uncommon speed and deftness. But I never knew a scholar of that nation — no matter, we will suppose, how well acquainted both with Japanese and with English — who could furnish you an exact interpretation of either one of these languages in terms of the other. This inability is doubtless partly due to the immense difference in the so-called genius of the two languages. But it is also, I venture to believe, largely due to the fact that exact interpretation — the telling precisely

what do you understand this to mean as a matter of careful construing — is not made a study among the Japanese in acquiring a liberal education.

For myself, I do not hesitate to say that if I had forgotten all I ever knew of the Greek language and of the Greek literature, its study would still be worth double the time it cost in making me able to sit down with a good book, in whatever language written, and let its author tell me just what was in his mind and on his heart. I insist upon it that the practical consequences of retiring the study of the classical languages from the curriculum of a liberal education will be something quite incalculable in the way of wresting from those who call themselves cultured the key to every form of good literature.

It would scarcely seem necessary to argue that a somewhat wide acquaintance with, and fondness for, good literature is a necessary part of a truly liberal education. For theoretically few indeed are found ready to dispute this truth. But, in my opinion, this is one of the truths most likely at the present time to be left practically out of the account in making up our estimate of the studies indispensable to such an education. There is reading enough done — there is far too much reading done — by the multitude of the people and by the so-called educated classes. And of the making of many books, the gross, materialistic, sordid manufacture of something to be read, — something, no

matter what, if you can only so construct and advertise it that it will be read, — there is no promise of an end. But the simple undisputed matter of fact is that *what* is read is not literature, and would, almost all of it, better be left unread.

It is somewhat shocking to discover how few men and women, even among those who claim the title of "educated," know or care much about really good literature. They read — the newspapers (Heaven pity them), the magazines, and the latest, most sensational novels. But with these persons there is little acquaintance or affection having for its object what is really pure, noble, and elevating in the world's best books. I regard it, then, as of the utmost importance to hold up a high standard of literary culture as an aspiration and aim of all those who would lay claim to a truly liberal education.

And here I will venture to speak quite frankly though with perfect friendliness, concerning certain efforts of some of the modern devotees of a more purely scientific education. They are often obviously irritated at the distinction which has not as yet been wholly abolished between the degree of B. A. and the other degrees given at the end of courses which do not emphasize in the same way the linguistic and literary side of culture. They think it unjust and intolerable that graduates of scientific schools, who have been serious and suc-

cessful in their studies, should not be eligible — for example — to the distinction of Phi Beta Kappa, or to other similar distinctions. Now, speaking for myself, I certainly have no exaggerated estimate of the worth of titles or of membership in any form of learned societies. But I do care a great deal about the truth, and about maintaining in this country a high standard, a sound basis, and a comprehensive range, for the recipients of a liberal education. And in my opinion, anyone who claims that a larger amount of scholastic study of the physical and natural sciences can be substituted for studies in language and literature, so as to obtain in this way that kind of cultured mind which belongs to the intellectual freeman, is simply maintaining what, from the very nature of the case, cannot be made true. Neither bestowing nor withholding titles and membership in learned societies will alter the fundamental facts of the soul's life and development. Connected with these trifles, however, impressions and tendencies may be strengthened which will work a mischief to the cause of liberal education in this country from which it will not readily recover, even if a long time be allowed for the recovery.

I hasten at once, however, to say that prolonged scholastic training in mathematics and in the elements of the physical and natural sciences is also a necessary part of a truly liberal education.

The relation in which mathematics stands to the science of nature is somewhat akin to that in which language stands to literature. In a true and important meaning of the figure of speech, mathematics gives the key into the hand of him who wishes to make a scientific study of nature. The man who is to have any education whatever must have some knowledge of mathematics; he must know enough to be honest and accurate in his business transactions, if he wishes to exercise those virtues. To conduct well many forms of business, one must know much more than the rudiments of mathematics; while the successful pursuit of certain branches of mechanical industry and invention requires a considerable training in this branch of education. But it is for a certain amount of the scholastic study of mathematics, as a necessary factor in a liberal education, that I now plead. Much has been made, by the advocates of a high value for the mental training that comes through this form of study, of the kind of close deductive reasoning which it employs. Such an estimate is partially justified; although it has, I think, very often been exaggerated. Of more educational value is that training which mathematics imparts in respect of quickness of insight and deftness of handling bestowed upon set problems. To enjoy, and to be skilful in, attacking problems is a not insignificant attainment for any educated mind.

For is not life one prolonged succession of problems that demand to be solved? To be sure, most of these problems are not of the mathematical order and do not admit of solution by the methods of mathematics. But it is a thoroughly good thing for a man not to be a coward or a sluggard when he is brought face to face with any hard problem.

The truly liberalizing power of mathematics, however, is felt only when two things are attained. The first of these is a certain amount of free and joyful movement in the handling of mathematical symbols and formulæ. The other is a certain grasp upon the beautiful ideas and the wonderful laws which are represented by these symbols and formulæ. A friend of mine, who stands in the very front rank of the world's great mathematicians (a rank so thin that two men could probably count its numbers on the fingers of their two hands), has recently declared that for him the higher mathematics is chiefly an æsthetical affair; and that no man ought to study it who does not rejoice in the beauty of the ideas with which it deals. Now, of course, it cannot be maintained that such very high mathematics shall be made a necessary part of all liberal culture. But, in my opinion, it is desirable for one in pursuit of this culture to go far enough in mathematics to get some glimpse of the ideality, and the beautiful ideality, of the world in which mathematical conceptions reign supreme.

Moreover, a truly liberal education implies enough knowledge of mathematics to use it as a key for getting at those more elementary and fundamental principles upon which external nature is built. A knowledge of these principles is itself an indispensable part of an education. The extreme advocates of a scientific, as distinguished from a literary and philosophical culture, are accustomed to consider themselves as the only representatives of a really *modern* education. And it is undoubtedly true that natural science has only comparatively recently begun to come to the front as a claimant of rights — of something more than mere bits of tardily granted concessions. These advocates too often forget, however, that this is because natural science is itself so new, and is still so comparatively crude and ill instructed as to the most effective methods of liberal culture; is even so doubtful as to the actual results which it could show if the higher education of the country were more fully committed to its hands. For here again it is simple matter of fact that literature and philosophy were brought to a very high pitch of cultivation centuries before the first crude beginnings of real natural science were made. It is true also that the equipment and accredited method of these two-thirds of a liberalizing education are still superior to that of natural science. And now I wish I might be pardoned (though I am sure I shall not be) for

saying that the products hitherto turned out, as the results of too exclusively scientific training, do not make me incline to trust the promise of substituting in this way something satisfactory for the more old-fashioned curricula. I have not observed that these products are actually men of a truly liberal mind.

On the other hand, I hold most firmly to the opinion that an interest in, and a knowledge of, nature which goes beyond that of a man who has merely the lower education, is a necessary factor in a truly liberal culture. Especially in *these* days it seems to me that no man is wholly worthy to hold the title belonging to such a culture who has not had a somewhat prolonged scholastic training in natural science. Here again I make deliberate use of the singular rather than of the plural number; and I have said a training in "science" rather than in the sciences. This training implies such a course of study as will impart, in accordance with the average capacity, a conception of what is now understood by the term "science," and of the recognized method of scientific investigation, so far at least as it is in the main common to all the natural sciences.

Undoubtedly, the larger part of the entire body of liberal culture will always consist of intelligent opinions to which it is difficult to give a truly scientific form, in the stricter meaning of the word

"scientific." Undoubtedly also — to repeat the remark of a colleague, a professor of physics — "most of the advances in science consist in correcting mistakes." Notwithstanding the hardship which would be involved in the effort to draw a fixed line between the region where opinion dwells and the domain ruled over by science, the character of the conception to which the latter word answers should be made clear to every educated mind. How often does one meet men of fine literary culture who still show no little bigotry, and commit not a few important mistakes, because they simply do not know what science really is. And again, if they wanted to attain knowledge on any subject which should be worthy of being called scientific, they simply do not know how to go to work; they know nothing about scientific method in the investigation of any subject.

It seems to me, then, especially desirable in these days that the somewhat prolonged scholastic study of natural science should be made a required part of every liberal education. And if I were asked that difficult practical question, "How much?" I should be inclined to answer: "Enough to give the student a pretty firm grasp on those fundamental physical principles upon which the world of things is built, and enough of the pursuit of some form of descriptive natural science to impart the training of the powers of observation and the habit of properly

connecting newly observed natural objects with groups of similar objects known before." I find myself disinclined more and more, on the other hand, to consider liberally educated, in accordance with the spirit and the needs of the age, any man who knows nothing certain of the fundamental things in physics, or who cannot turn a trained eye on at least one group of natural objects — be this group stars or stones, trees, flowers, ferns, or the human body, birds, beetles, the animals in the zoölogical garden, or those domesticated in the city house or back-yard.

I am also quite as firmly persuaded that a somewhat prolonged study of the human soul — of logic, psychology, ethics, and of those problems which have formed the themes of reflective thinking since man first began really to think at all, of philosophy, that is to say — is a necessary part of a truly liberal education. I find it difficult to understand how any man can attain the genuine scholar's *liberal* mind, who takes no interest in the processes and laws of his own mental and moral life, and in the progress and laws of the mental and moral lives of other men. If I were to argue in detail for a portion of these studies in the required work of every college curriculum, I think I could show how close is the relation they sustain to the most successful pursuit of every other kind of studies. Modern psychology is certainly making

large claims and rapid advances, in the direction of proving itself an indispensable auxiliary to the entire group of liberalizing pursuits. Certainly no one of those learned professions, including the fourth profession of teachers, into which the great body of liberally educated youth annually pour themselves, can in these days afford to neglect the somewhat prolonged and scholastic study of the human mind; of the four, certainly neither the preacher nor the teacher. The former has been traditionally a student of philosophy. The latter is now compelled, even by the authorities in charge of our higher public and normal schools, to know something, in appearance at least, of psychology. It must be a truly humiliating experience for a college graduate, who has had no work in this subject as a part of his collegiate education, to be compelled to sit down beside the girl graduate of the high-school and get his lesson in psychology.

My task will doubtless be hardest of all when I insist on some philosophical study as a necessary part of a truly liberal education. Yet in my own opinion there is no other study which is so distinctly liberalizing as philosophy. Just to face these profound problems concerning the being of the world; concerning the being, the origin, and the destiny of man; and concerning God and his relations to the world and man's relation to him; just to know that there are such problems, and

what they are, and something of how the soul of man has in thought and feeling responded to them, is of itself no small part of a liberal culture. And here I speak, not from theory alone, but from experience with several thousand pupils. I affirm without hesitation, on the basis of this experience, that it does make the mind more liberal, more serious, gentle, interesting, cultured, and vigorous, to have some face-to-face acquaintance with the principal problems of philosophy. As a cure of souls afflicted with those shallow and coarse views of life, and of its most profound, most mysterious realities, which dominate the age and the land, there is nothing superior to this which I could recommend. It is true pastoral and soul-saving work to induct youth, who are in process of the higher education, into the calm and reasonable consideration of these problems.

These, then, as it seems to me, are still the essentials of a truly liberal education, — now, as they have always been to some extent ever since the conception and practice corresponding to the phrase a "liberal education" emerged in the life of the race. An appeal to the history of education would show that the more ancient authorities, as well as the reformers of education on the hither edge of the Middle Ages, and the most trustworthy writers on pedagogics in modern times, are in substantial agreement. The chief differences of opin-

ion are differences as to proportionate values, as to methods and lengths of time, rather than as to the essentials of the higher scholastic training.

But now, very briefly, I wish to indicate my opinion as to how the emphasis should be laid upon the word "modern" in the theme we are examining. What changes are desirable in the course of scholastic training to make it better accord with the modern spirit and the modern needs? For in spite of any seeming of extreme conservatism which the opinions thus far expressed may have had, I am a pronounced advocate of modernizing the curriculum of our liberal education. I do not believe, however, that the best way of accomplishing this involves either any further extension of the elective system in our American colleges, or the exclusion from their required courses of any of the essentials of such an education.

On the other hand, our efforts should be directed toward meeting the increased and altered demands of the age, in the following ways. Some readjustment of proportions is plainly required in order better to adapt the college curriculum to these demands. It is not at all certain that any ultimate diminution is required in the actual amount of work now done in either of these three great branches of scholastic training by even the most exacting of our collegiate institutions.

Within these institutions the relative — but not necessarily the absolute — amount of training in mathematics and in the classical languages will probably be lessened; while the amount of training given in natural science, and the acquirement of the modern languages so far as is necessary to a possible familiarity with the French and German literatures will be increased. The way to solve such a seeming paradox is, I think, steadily to improve our facilities and effectiveness in the teaching which precedes admission to college as well as during the college course. The ten years from six to sixteen are enough, and more than enough, to prepare the average mind for the most exacting of our American colleges. But alas! how much of this time is wasted, and worse than merely wasted, by the poor teaching that prevails in the intermediate schools.

Now the men and women who have a truly liberal education must somehow sweep away these evils which lie lower down; and this as the best manner of clearing the ground for a progressive improvement in the adjustment of later studies to the modern changes of educational values. But if, in making this adjustment, we relax our hold upon what we know, by centuries of experience, to have a high degree of such value, and then prematurely substitute — especially if we do so wholly at the option of the pupil — a large amount

of that whose value is as yet less a matter of long experience, I fear we shall not really raise our standard of liberal education. Practically, then, I think that, as fast as college time is set free by improvement in the preparatory education, that time should for the present needs be largely turned over to required work in natural science and in the modern languages. In this way it probably will not take long to bring about a more satisfactory adjustment of proportions among the three essentials of a modern liberal education.

Second: The education at which the college aims should meet the demands of the age by the fullest possible use of modern equipments and of modern methods. It is surprising how much of the objection urged against the required study of the classical languages is really based on the supposition that methods of teaching them now almost obsolete still prevail. The same thing is also true of the objections urged against the study of psychology, of ethics, and of philosophy as essentials of a liberal education. Looking back to the time when I was in college, I have no hesitation in saying that the teaching of these languages was, as respects the interest and effectiveness of its methods, on the whole superior to the teaching of mathematics and the natural sciences. But what a change has really taken place since then in the methods employed by both

these classes of scholastic pursuits! I am inclined to believe that, on the whole, the improvement of the methods of teaching Latin and Greek has been quite as marked as that made by the teachers of the natural sciences.

As to psychology and philosophy, whenever these subjects are in the hands of men who have themselves received a thorough modern training, the same claim can be established. Unfortunately, however, the impression still prevails widely that any one can teach psychology, ethics, and philosophy who can read in advance of his pupils a text-book on these subjects — especially if he happens to have had training in a peculiar set of prejudices by having been a student of theology.

But in all three groups of essentials — in language and literature, in mathematics and natural science, and in psychology and philosophy — the present generation has seen more advances in equipment and in method than all the rest of the world's past history. What is chiefly needed, in order properly to modernize our liberal culture, is the possession of this equipment in the hands of *men* who know how to use it. Here I am tempted to make a side remark which has an important bearing on all higher educational development in this country. The conduct of many educational institutions and the estimate placed upon them by the American public are such as to depreciate

the teaching functions. But in time it will be discovered here — a truth already better recognized in France and in Germany — that it is the character of its faculty which chiefly determines the rank to be allotted to any educational institution. Money and all that money will buy — immense sums of money and incredible extensions of equipment — are a necessity for the most successful promotion of liberal culture. But, after all, these things and all mere *things* are subordinate to the man who knows how to employ them so as to develop in his pupils the truly liberal mind. And if he is himself illiberal, a bigot, — whether his bigotry be that of the philologue, or that of the economist, or that of the "scientist," or that of the advocate of the new psychology, — the teacher may have boundless fame as a specialist, and unlimited enthusiasm for his specialty, but he is not wholly fit to take part in the bestowal of a truly liberal education. Never before was the need so great that the teacher should himself be a man of the widest intellectual interests and sympathies, and of the broadest culture.

It will be seen, then, that the changes in studies which appear to me necessary to meet the changes in the demands made upon the educated man are not to be sought in the character of these studies so much as in the proportions of each and in the method of pursuing them. These changes I believe

should be in the main determined by those who have their education in charge, rather than by the choice of those who are in process of being educated.

But beyond the liberal culture given to the average college-bred man, and higher up, lies the sphere of the specialist who puts his highly specialized pursuits upon the basis of a broad and well-proportioned more general education. He who rises into, and remains long enough within, that sphere becomes one of the few most nobly and highly cultured. He is the liberally educated specialist, — a man quite superior, in respect of education, both to the specialist who has no thorough liberal education and also to the man who, having the fundamentals of a liberal education, has not also the special attainments of a master of some one subject.

I close the presentation of my opinions on this theme with a remark calling attention to its great practical importance in the near future of our country. We are all familiar with the often repeated thought that our national destiny is closely bound up with the education of the multitude of the citizens. This thought is, of course, true ; and the significance of its truth may reasonably make all patriots serious ; for the condition of the public education in the United States is very far indeed from satisfactory at the present time. Taking all

sections of the nation into the account, we are an illiterate nation. And under political and selfish business influences, even in the best section of the nation, there is much in our educational condition to cause shame and alarm.

But it is not the condition of public education, not the character and amount of training which the state undertakes to provide for every citizen, that is the subject of my present inquiry and solicitude. There is another truth respecting the relations of education to the public welfare, which, if less obvious, is no less important. The destiny of any nation is dependent on the character of its aristocracy; and the character of the aristocracy is dependent upon the kind of education which this aristocracy enjoys. I know that there is something which sounds unrepublican and un-American, in our ears, about such a declaration as this. But I should undertake to show from history that the welfare of any nation is quite as really dependent upon the character of its clergy, its lawyers, its doctors, its teachers, and the classes that have leisure, social standing, and wealth as upon the character of the so-called common people. I know you will remind me that the most liberal culture will not make the so-called "upper" classes good, or furnish true friends and trusted leaders of the people. But neither does a so-called common-school education make the common people good.

Only as education enters into the sphere of the ethical, æsthetical, and religious life does it become a real safeguard of either the aristocracy or the multitude of the citizens. But it is just the peculiar potency of the truly liberal education that it can lay so much emphasis upon what is not merely necessary to live as a smart and successful citizen, but is rather necessary in order to enter into and possess the larger, richer, and higher life of the soul.

There is one other consideration which it seems desirable to connect with this subject. Rightly or wrongly, temporarily or permanently, there exists a widespread lack of confidence in representative government. Here in this country, where the powers of the representative bodies, both in the state and in the nation, are more extensive and unlimited for good or for evil than anywhere else in the world, this distrust is perhaps most strong and most on the increase. The simple truth is that no class, neither the so-called laboring class nor the cultivated class, has any large amount of confidence left in the men who make laws for them all. Municipal, state, and national legislative bodies are almost universally distrusted, feared, and despised. This is a fact, whether it is a fact that admits of rational justification or not.

There are plain signs that some form of virtual aristocratic government is likely to be widely es-

tablished in reaction from the extreme evils of democracy, — a rule of the *best*, in some meaning of the word "best." But shall it be the man "best" to lead the populace by deceiving them, as the self-deceived or shrewdly hypocritical demagague has done so frequently in the past history of governments? Or shall it be the man, or the corporation, or the syndicate, whose length of purse and elasticity of conscience best stand the drain upon it made by the demands of the law-makers; shall it be the rule, by bribery, of the plutocracy? Or shall it be the rule of the men of liberal minds, of minds set free from bonds of prejudice and of avarice, and well acquainted with those laws of nature and of the soul, of man as a thinking, speaking, social, and religious being, which it is the business of a liberal education to impart? I sincerely hope that our really governing aristocracy in the country will be of this third class. And it is in the fitting of this class for the life which lies before them as the genuine aristocrats that the supreme value of a truly liberal education consists.

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