WHAT INSTRUCTION SHOULD BE GIVEN IN OUR COLLEGES?

At the time of founding the earlier American colleges, mental discipline was the chief end of the four years' course of study. But if college professors were asked to-day what is the chief end of the course, we fear that many of them could not give satisfactory answers. Certainly their answers would not be the same. If they should say mental discipline, the answer could not easily be reconciled with the long, incongruous list of studies, the primary aim for pursuing which is to store the mind with facts. If they should say, to acquire knowledge, the answer could not easily be reconciled with the presence of Latin, Greek, and mathematics in the course. If they should say, mental discipline and general culture, the answer would betray a very imperfect conception of what constitutes general culture, considering our enormously expanded circle of knowledge and our mental activity. If they should say, there is no longer a chief end, but that several ends are kept in sight, then it is very desirable to know what these ends are, and whether they are worth the cost of attaining them.

To acquire mental discipline, Latin, Greek, and mathematics were formerly regarded the best instruments. For many years this idea of college instruction was unchallenged, and even now is maintained by some persons with unlessened confidence. From most minds, however, the idea has been partly or wholly dislodged. Latin and Greek are prized as highly as they ever were for their beauty, strength, and finish, but have lost their magic charm as instruments for fashioning the mind. They have been cast down from their peculiar niche in the educational structure, and perhaps will never be replaced.

So long as the chief aim of college instruction was mental discipline, and so long as Latin, Greek, and mathematics were regarded the best instruments for acquiring it, the course was consistent. But when the craving for more knowledge was developed, to satisfy which new studies were added, the consistency disappeared. Every additional study was a new disfigurement. When the sciences were added, one by one, — physics, geology, mineralogy, chemistry, botany, and so on, — the disfigurement was complete. A confused jumble of studies is now seen, creating the painful impression that the old curriculum has been shaken by an earthquake.

That the present course is a concretion, and not a systematic and fair growth, hardly any one will deny. It resembles an ancient building which originally was well proportioned and pleasing, and which served a highly useful purpose. It was indeed the goodliest structure of the time. All honor to the builders! But by making additions the proportion of parts has been destroyed, and the beauty of the original design wholly lost. We may call the structure a building, but it certainly does not serve the end for which it was designed as perfectly as it did in the beginning.[1]

This is clearly enough seen by most of our college teachers. We may find fault with them for not rebuilding, but we should do them a far greater wrong by asserting that they have not seen more or less clearly the chaotic condi-

[1] In this connection Dugald Stewart's famous remark on the universities of his day is worth repeating: "The academical establishments of some parts of Europe are not without their use to the historian of the human mind. Immovably moored to the same station by the strength of their cables and the weight of their anchors, they enable him to measure the rapidity of the current by which the rest of the world is borne along."

tion into which the structure has fallen. The proof that they see is the permission given to students to decide to some extent what studies they shall pursue. College professors know how general is the dislike among students of many of the studies now pursued, especially Latin, Greek, and mathematics. To make college instruction more satisfactory to them, "the elective system," as it is called, has been introduced. This phrase finely illustrates the trick which can be played with language, for the elective system is no system; it is the abandonment of a system. The adoption of the elective system is simply a confession that the existing curriculum is inadequate, and that the student knows better than his teacher what to learn. We earnestly maintain that those who have spent their lives in educating boys and young men, and who are familiar with the experience of former educators, know best what the course should be. "Young America" is "smart," but we do not believe that he has advanced far enough to prescribe for himself.

If, then, the existing course be imperfect, how can it be improved? We maintain that college instruction should be prescribed with reference to the following aims: (1) to discipline the mind; (2) to teach the expression of thought in speech and writing in the best manner; (3) to develop the powers of the body and mind as well as an understanding of moral and social relations; (4) to impart knowledge; (5) to build up a solid foundation for those special studies and pursuits which are to be undertaken after the completion of the course.

(1.) There is no need to define what we mean by mental discipline. Nothing connected with higher education is better understood. Persons, when told in their youth that one aim of education is to discipline the mind, do not understand what is meant, but with fuller mental maturity they do. Now we would contend as strenuously as any devotee to the study of ancient language that this end should never be obscured. To explore the vast domain of knowledge, to carry our conquests further, the mind must be perfected to the highest possible degree, and that this end may be better attained is a strong reason why the present college course should be revised. For the multiplicity of studies now pursued does not conduce to the highest mental discipline. The mind is distracted by them. Some change of study is desirable for healthy mental growth, but not too much. There must be fewer studies if we would have stronger minds. Mental power in every direction should be developed: the critical faculty should be sharpened; the reflective faculty be broadened and deepened; the constructive, exercised; the memory, strengthened. But to effect this mental enlargement and strengthening, a course of study very different from the present must be prescribed.

How can mental discipline be best acquired? Here we come to the parting of the ways. One class of educators maintain that this can be done best by the study of Latin and Greek; another class, by the study of science. A third class contend that mental discipline is the result of a method of studying rather than of the particular study pursued.

Does the most careful analysis of the ancient languages disclose any peculiar elements by the mastery of which the mind is better trained than by the mastery of other studies? If, for example, the training of the memory be desired, cannot this be effected as perfectly by learning a modern language as by learning the long-honored Latin and Greek? If the desired training be that of the judgment or power to discriminate, cannot this be had as well by comparing the definitions of words in modern languages, their shades of meaning, and by different translations of phrases and sentences in them, as by pursuing the same exercises in the ancient languages? The

more critically the point is studied the more clearly does the fact appear that any power of mind, or the mind as a unity, can be as highly developed by the study of modern languages as by that of the ancient ones. No peculiar quality has been discovered in them for exercising the mind. They are not specifics. The persons who maintain that they are have never shown wherein their superiority consists. They have never gone farther than to make general assertions.

If our conclusions be correct, we are confronted with the question, Should Latin and Greek be retained in the curriculum as means of general culture? We should employ every means to extend our culture; not the smallest trifle of intellectual or moral beauty, from whatever source, should be cast aside. But we would no longer confine our conception of general culture to the mastery of the Latin and Greek languages and literatures. Such a conception is too narrow. The man who can give you a fine description of Cybele, or any other god of Aryan mythology, but cannot give you a good account of the part that Jefferson and Adams played in American history, or of the functions of the lungs, should no longer be regarded a cultivated man. Once there was no science, and hardly any history, outside that of Greece and Rome. Since then many planets of knowledge have been added to the few which existed before. These additions have had the effect of changing the meaning of culture. Unhappily, many of our college professors do not seem to have found this out. They are still dreaming in the moonlight of the Middle Ages. They still believe that young men should get the same education as was prescribed for them when the world knew less. It is time to dispel this pernicious idea. Modern culture is infinitely broader and deeper than mediæval culture, and to get it the appropriation of all the mental and moral wealth of Greece and Rome will not suffice. In drawing from these sources, however, an easier and more fruitful method than the present one can be employed, and we should not hesitate to employ it. What more convincing proof is wanted of the necessity for doing this than the introduction and success of the elective system?

One reason why these languages continue to enchant men is because, for many centuries, they were the best sources of culture. Refinement is associated with them as closely as a polished man with a home in which beauty is everywhere visible. Through long association of this nature, therefore, these languages possess an enchanting power. But though they were formerly the principal sources of mental culture, they are not now. The knowledge of the ancients was confined within narrow bounds, like the physical world they knew. Those who regard the Latin and Greek literatures as the principal means of general culture have no adequate conception of the vast acquisitions since those ancient springs ceased to flow. Placing before our view the entire field of knowledge and the entire history of man, can we believe that those two ancient languages, and the people who used them, possess such a potency of general culture to the present generation as some persons maintain? This can be attained only by drawing copiously from other and living fountains. The social life of the Greeks never reached the plane of more modern people; their moral ideas were less finely cut than our own; their aspirations were lower, and most of their writings are as cheerless as George Eliot's, containing not a gleam of hope for man. Since those far-off times men have come to love the truth more for the truth's sake; life has become an infinitely grander thing, is filled with nobler yearnings and possibilities, and is cheered with better revelations. In many ways there has been an immense development, to know of which will

bring a broader, higher, and better culture than can be acquired by the most assiduous study of the ways and works of the Greeks and the Romans, or by the largest infusion of their spirit.

(2.) The next aim of the four years' courses should be to teach the student how to express his thoughts in speech and writing in the best manner. Until recently the attention bestowed on this subject was very slight. It was assumed that a student understood his mother tongue when he entered college. Yet too often students knew not how to construct a strong English sentence when they entered or when they left. Perhaps they knew at the end of their college career how to write an elegant Greek one; but the persons met in the outside world did not know Greek, and Greek composition availed nothing among them. If the English language has been improved and enriched by studying Greek and Latin, on the other hand, English grammar and English composition have been debased by the admixture of too much foreign alloy. The borrowings and copyings have been too servile and frequent. This is especially noteworthy of those who strenuously maintain that Latin and Greek should retain their place in the curriculum. They have studied Latin and Greek most zealously, but forgotten or never acquired their own tongue. However well adapted the study of these languages may be for disciplinary purposes, it is not helpful to an effective mastery of English, judged by most of the utterances and writings of the defenders and teachers of the ancient classics.

Knowledge is power; so is language. The study of the method of expressing thought, however, is of supreme importance. Our colleges are awakening very slowly to the need of better instruction on the subject.

The first line of study, therefore, should be language, extending through the four years' course. We would have three languages taught, English, French, and German. Nevertheless, if a student, when entering college, desired to study Latin and Greek instead of French and German, his desire should be respected. We would not ignore the great merits of Latin and Greek instruction, but for many reasons we maintain that French and German are entitled to a higher place. The stress of our argument, however, is that five languages, beside the other studies now prescribed, cannot be thoroughly acquired in four years. The time is too short for more than three languages; hence the student, in the beginning of his college career, should decide to study either Latin and Greek or French and German. Frequent compositions in English should be required, and there should be enough instructors to give to each student special training in the art. At present, how little attention can be given to this subject! Now and then a student gets fifteen minutes of instruction from a professor, but this is only a small fraction of the time that should be devoted to each student. Our instructors doubtless do the best they can, but they are too few to furnish the instruction required. Were adequate instruction given, perhaps a wonderful revolution would be wrought in our speech and literature. Amazing as are the conquests of science, the acquisitions in philology and in almost every department of knowledge, we believe that new and splendid glories will be reflected by voice and pen, when our college courses shall be so revised that a profound study of the capacity of the English language for speech and written composition shall be undertaken. Is there any reason for supposing that our vehicle of thought can be brought no nearer to perfection? It may appear some day that our language is now in a crude, half-developed stage, its greatest power and beauty unknown. How great is the pleasure of the Greek scholar in unlock-

ing the wonderful secrets inclosed in the Greek particles! But if he had displayed half the industry in trying to add force to these little words in English, perhaps they would excite more admiration to-day from the philosophical linguist than the particles of any other language. The old Greeks sought to make their language a powerful instrument for the expression of thought, and their success is one of the perpetual wonders of the world. We too should strive to make our language beautiful and perfect, but this can never be done simply by studying Greek, any more than a homely woman can become beautiful by studying the beauty of another. To make our language a more perfect instrument of thought, we must radically change our method of studying it. The Greeks did not improve their language by studying the languages of contemporaries. They knew Greek, and it alone. Why will not the modern worshiper of the Greek language adopt the method by which that marvelous instrument of speech was made so perfect? If this method should be adopted, the English language of the future may be as superior to ours as the Greek of the age of Pericles was to that of Hesiod or Anaximenes.

The time has fully come for our colleges to do this work. It is peculiarly their own, — to teach and develop the latent capacities of the English tongue. No longer should the might of philological teaching be devoted to Greek and Latin. Employ this power in the mastery of English, and good results will speedily appear. Erelong these results would doubtless silence all who still cling to the wreck of the ancient order of things, and lead them to confess their error in adhering too long to a course of study which consisted in admiring the past, rather than in resolutely determining to improve their own language and to make it a perfect instrument in which to set the precious gems of thought.

The colleges have played an ignoble part in maintaining that Greek and Latin were the best mental gymnastics, and worthy of all the study bestowed on them, because they are so finished. One feels that the men who say these things are hardly a part of the world, or have much at heart the permanent improvement of mankind. We have read some parts of President Porter's book on American Colleges several times, and every re-reading caused additional pain, because he showed so much admiration for the past, and so little inclination toward improvement. If our language be not so beautiful as the Greek, if our morality be inferior to theirs, if our sense of beauty be less keen, if our intellect be not so acute, if our manhood be below the Attic standard, let us resolve to advance. But let us not march by the roundabout way of Greece and Rome, as if we did not care much about improving ourselves. Let us adopt a course of instruction which shall plainly reveal to the student the ends to be attained by pursuing it. We confess our surprise that a clergyman like President Porter, whose Christian living and thinking have been consistent and of fine example, should dwell so fondly on the ancient classics as a means of moral and æsthetic culture. Instead of giving up so much of those precious four years to an admiration of the past in literature and art, the student should be more thoroughly stimulated and prepared for the work of life.

How often have men declared that when they went forth into the world at the end of their college career, instead of having been fitted for their work, they were unfitted! After a time, they acquired needful knowledge and unlearned much. The college of to-day is too unreal. Doubtless something can be said in favor of making it so, of breaking up former modes of thought and action. But the re-creation of the student is often carried too far. The

consequence is, he becomes unfitted to master the situation, while the theory of college education is that he will master it more easily. The study of Latin, Greek, and mathematics is the chief agency in putting him into this idealistic, unreal condition, — of losing him, as it were, in the world. These studies touch life so remotely, they abstract the student so far from the world, that when he gets into it he is like a babe, and much must be explained to him. After sundry mishaps and no little ridicule his eyes are opened, and he ceases to see men as trees walking. Root out the ancient languages and mathematics, substitute French, German, and English, and men will be sent into the world better equipped than they are now. They will remain near enough to the actual world in college to know how to act when they go outside. It is true that we are "as soldiers fighting in a foreign land, understanding not the plan of the campaign;" but we shall fight with more heart and energy, and with stronger hope of winning, if our preparation, though inadequate, seems fitted for the work before us, than we shall if distrustful of our preparation. Life always becomes solemn as soon as we discover what it really is: but in the former case solemnity is brightened with hope; in the other, it is darkened with despair so great that many flee from the field as soon as dangers appear.

(3.) The next line of study pertains to the cultivation of the body and mind, and to the moral and social relations.

The first three studies in this line should be anatomy, physiology, and hygiene. Through the first study we should learn how the body is constructed, through the second what are its dynamics, and through the third how to conserve the body and use it most effectively. These studies, therefore, should come first in the second line, and run parallel with the first line. They form the physical groundwork for all future study. They properly stand at the portal through which we must enter the temple of knowledge.

Next in the same line of study should follow logic and mental philosophy. These studies are needful to teach us what are the powers of mind and how to employ them. Of course, some persons maintain that mental philosophy is dreary and useless, because no certain knowledge can be attained. They say that the whole ground is a battlefield on which men have been contending since the earliest ages, and that nothing has yet been settled. Should such a study as this, they say, be pursued in our colleges? This, however, is a shallow way of regarding the matter. Many of the questions lying in the domain of mental philosophy are asked by every thoughtful person, and whether answers shall ever be found satisfactory to all minds, many desire to know what answers have been given. But there is a considerable body of valid knowledge concerning the mind which surely should be acquired. Besides, this study has an excellent disciplinary effect. The student learns to discriminate, to analyze, and to construct. In no other study is the synthetic faculty more powerfully exercised.

The study of anatomy and physiology is a good introduction to logic and mental philosophy. There is a physical side to this study which, until recent years, has been too much ignored. Most of the teachers of mental philosophy have known nothing about anatomy and physiology, and consequently have taught a one-sided mental philosophy and psychology. While many of the anatomists and physiologists have gone to the other extreme, it must be apparent that by pursuing these four studies in the order named, more useful and satisfying results are likely to be attained than by continuing the present course of study.

After unfolding the physical and mental powers we reach the moral ones.

This is by a regular and natural gradation. Then follows the study of man in his social relations, and thus a knowledge of the state and of our duty as citizens is a proper outgrowth and completion of this line of study.

(4.) The aim of the third line of study is to acquire facts. These are to be drawn from history. History is the record of the world's experience. A high value should be put on this knowledge. It is true that prejudice may be fed in studying history, while no danger of the kind is possible in studying the binomial theorem. But the risk may be wisely taken for the sake of the knowledge. In every field containing wheat, tares abound; yet it is better to work in a wheat-field than to dig wells in a desert.

But, says the defender of Latin and Greek, if we would learn all the lessons which Greece and Rome have for us, we must master their languages. We will not deny that an accomplished Latin and Greek scholar ought to draw more wisdom from Greek and Roman history than he who has an imperfect acquaintance with the Latin and Greek languages, or none whatever. But we must remember that only at rare intervals does a Latin or Greek scholar of high order blossom in our colleges. They educate far more sunflowers than century plants. Most of their graduates do not advance so far as to drink in the lessons of Greek and Roman wisdom more fully than others do by a different and an easier method. On the other hand, if the time spent in acquiring these languages were devoted to our own, and French and German, and in storing up the best experience of mankind, the college student would get a better culture than he is getting now.

Beginning with the cave and lake dwellers, and following with the geography, history, and archæology of succeeding peoples this third line of study should be extended to the present time, broadening out and deepening as we advanced. All sides of life should be considered, — the political, moral, religious, industrial, social, and economic.

Such knowledge shows the action of man, his influence, his victories over nature. It is one-sided, however, regarded from one point of view, because it does not show the power of nature over man. To supplement, correct, and complete this knowledge a study of man's environment is essential. But instead of studying nature in a fragmentary way, as colleges do now, by merely peeping into geology, mineralogy, astronomy, botany, physics, chemistry, and the like, it is proposed that instruction should be given in the physical history of the universe. This would comprise the different theories concerning the origin of the earth, its form and motions, the composition of the sun and planets and the probable history of the solar system, the forces of nature and their operation, an inquiry into the materials composing the earth, and the order of the vegetable and animal creation from the beginning to the present. This study would be an unveiling of the wonders of the universe, a blending of all the sciences into one, whereby their mastery would be easy and useful. The study of science would no longer be fragmentary. It may be objected that this knowledge should precede the history of man. Though it relates to the world chiefly before man appeared, yet it would be easier to study his history first, and the order of knowledge might be reversed in the mind as soon as the student had traversed the whole field. This third line of study, it is also proposed, should run through the entire course.

(5.) These three lines of study would form a broad and solid foundation for any kind of superstructure of knowledge. Considered with reference to future studies, the proposed course is preparatory only, — the vestibule to the glories which may be seen by all who

enter the inner courts of knowledge, and devote themselves to further study.

Perhaps something should be said concerning the total exclusion of mathematics from the proposed course. A thorough knowledge of the elementary mathematics should be required of the student when entering college; the higher mathematics should be regarded as technical studies, and relegated to the courses of which they form a necessary part. The superiority of such a course of study over the present, we maintain, is very great.

(1.) Far better discipline of mind and body would be acquired, assuming, of course, that the studies proposed were taught with as much thoroughness as the studies now prescribed. Under the proposed system, the student would be pursuing three lines of study at a time: one in language, another relating to the cultivation of his physical and mental powers and his moral and social duties, and a third relating primarily to the acquisition of facts. In the first two lines of study, and also in the relation which one study bears to another, mental discipline is kept in view. There is change enough to rest the mind and impart to it the elasticity needful for its best development, as well as concentration enough to prevent the mind from scattering and becoming dissipated and weakened, as often happens in pursuing the present chaotic course.

(2.) The studies would be more perfectly mastered than the larger number in the existing course. If four years were needed to master the old curriculum, surely four years are not enough for the modern. Doubtless they are right who contend that colleges graduated better disciplined men formerly than they do to-day. And the reason is very simple, namely, when fewer studies were taught they were more thoroughly acquired; and thoroughness of study is the essence of mental discipline.

(3.) The student would be better prepared to contend with the world than he is after finishing the present course. He would have a true idea of life. He would have a richer fund of experience. He would have a far better knowledge of himself. He would have less to unlearn. He could make better use of all that he had been taught.

If Latin, Greek, and mathematics were eliminated from the four years' course, would they lose their standing in the court of knowledge? Certainly not. They would be fitted into other courses of which they would form a more important part. If one intended to study theology, beside studying Hebrew he should study Greek, because to the theological student it has a special value. If one intended to study law, he should also study Latin, in order to master the Roman jurisprudence, which is the admiration of all who are accomplished in the law. Medicine has well-defined courses of study concerning which nothing need be said. There are numerous scientific courses, which properly cover the entire fields of science and mathematics. No study, therefore, is put in the background; the complete curriculum of knowledge is simply rearranged so as to serve a more useful purpose.

There are courses, also, in philology for persons desirous of making a further study of language, in philosophy for the still unsatisfied, and in economic and political science. Other courses may be added, as they become needful, to cover in a systematic way the entire mental sphere.

It must be apparent to the reader that all knowledge is reduced to more perfect symmetry by the general course and by the special courses here indicated than it has been by the courses hitherto prescribed. We have not thrown away the smallest fragment. We have simply rearranged our knowledge so that it can be more easily gained, the relation of one division of it to another

be more easily seen and understood, and our power and happiness be materially increased.

The criticism may be made that such a course would be too rigid, and would not give sufficient play to the different types of mind. So far as possible, college teachers should understand these types, and adapt studies to them in order to produce the highest mental development. Surely, if a student be incapable of comprehending the calculus or metaphysics, he should not be forced to pursue those studies. Such treatment is both disheartening and demoralizing. Other studies should be substituted, but the teacher should have the controlling voice in choosing. The studies which a student intended to pursue when entering college should not be dropped when half completed, unless for reasons which are thought sufficient by his teachers. The claim is made that since the introduction of "the elective system" students choose studies that are congenial to their tastes, and which are adapted to their mental capacities; but the greater truth is, they generally choose the studies that are easiest, and for the reason that they desire to escape from work. Like electricity, they move along the lines of least resistance. If the proposed course be adapted to students generally, the substitution of one study for another in a particular case should turn on the question of the student's capacity, and not on his inclination. In no case should a student be permitted to depart from the course without the approval of his teachers, whose decision should be based, not simply on the desire of the student, but on the belief that a better result would be obtained by pursuing another study than the one prescribed in the course.

A few words may be added concerning the adoption of the course: (1.) It may be adopted as a substitute for the present course. This may be regarded as too daring an experiment. (2.) It may be adopted as an independent course, and tried alongside the other. This would be a very interesting experiment, because the inferiority or superiority of the proposed course would more clearly appear. The experiment, however, would require another corps of instructors, and the cost of maintaining them doubtless would be too great for most institutions. (3.) A third way is to adopt parts of the proposed course at different times. Latin and Greek might be reduced by degrees, and more of English, French, and German put in their place. Mathematics might be supplanted by anatomy, physiology, and hygiene. The physical history of the universe might be substituted for the studies in physical science. Thus one study after another in the proposed course might be substituted, until the reconstruction of the course was complete. Changes so slowly made would probably excite less opposition, would involve no additional expense, and could hardly be regarded as experiments.

Is there not truth enough in the ideas herein set forth to repay their consideration by those who are studying the question of higher education? Something must be done without delay. The theory is fallacious that students who know but little about themselves, and still less about the ends of education and how they are to be attained, know best what and how to study. Let those who have meditated on the question longest and most deeply undertake the long-needed work of reconstructing the course on sound principles. The task may seem arduous, but the loss occasioned by every year's delay is very great. In the vivid knowledge of innumerable shipwrecks, caused too often by an imperfect outfit, a mighty effort should be made, if need be, to start our youth on the voyage of life better prepared to encounter the many difficulties which even the most favored voyager cannot escape.

Albert S. Bolles.