

reads as if all the poets had felt this curious effect of the fragments, which so often just reach the line of cleavage between tantalizing suggestion and the full explosion of discovery. What it is that one expects and seems just on the point of realizing is not what is so persistently iterated and reiterated in the Anakreontics, not what the shallower harp sounds monotonously as its only phrase, — *ἔρωτα μόνον ἤχεῖ*, — but some immanent, soul-pervading, and final expression of human love loosed within by a supreme voice, the far overpassed imerophone, thrilling the ancient sphere with unimaginable melody.

Each master poet has this precious secret of a haunting reserve, this remote, alluring suggestiveness beyond all words; but none like Sappho. Each true genius swings a colored lantern with magic effect across our track, and its light is always characteristic and individual, with a signal flash exclusively its own. Sappho's light is that of absolute, universal womanhood. She knew herself, her sex, and her power; and it is this womanly knowledge, informed with a genius never yet surpassed, that brims her words with imperishable fascination.

Ἄστέρων πάντων ὁ κάλιστος.

Maurice Thompson.

THE REFORM OF SECONDARY EDUCATION IN THE UNITED STATES.

It has come to be distinctly recognized that any far-reaching educational reform in this country must begin with the secondary schools. The elementary school is helpless if the secondary school refuses to coöperate with it in raising the standard of scholarship and improving the methods of instruction; and but few colleges are strong enough to demand of the secondary schools more and better work than the latter are now doing. Persuasion on the part of the colleges has in some cases accomplished a good deal, but the improvement has been limited either to one or two subjects of instruction, or to the schools of a relatively small territory. The secondary schools themselves, not always conducted in a wise or generous spirit, have too often sacrificed the necessities of sound training to the local demand for an ambitious programme containing twoscore or more of school subjects, no one of which is pursued far enough or long enough for the pupil to derive from it the educational value it possesses. Or they have

erred on the other side, and in their devotion to a past ideal excluded from the curriculum whole fields of knowledge that have grown up within a century. Thus the secondary school has appeared to many observers not only to scatter a pupil's energies and interests, but to delay him unduly. The consequence is, as President Eliot showed very clearly several years ago, that the American boy of fifteen or sixteen, no whit inferior to his French or German fellow in native ability, is from two to three years behind him in acquired knowledge.

To remedy so apparent an evil as this would be an easy task in France or in Prussia. The minister of education would consult his official advisers, and call the leading educational experts to his council; in a few weeks an order would issue prescribing for the schools a new and reformed procedure. In this way, *Lehrpläne* and *Lehraufgaben* for the higher schools of Prussia were issued in 1882, and again in 1892. Similarly, in 1890 the existing *Plan d'Études*

et Programmes of the secondary schools in France was promulgated. In this country, however, where no central educational administration exists, and where bureaucracy is not popular, educational reforms can be brought about only by persuasion and coöperation, for no official and no institution is empowered to dictate to us. The press, the platform, the teachers' meeting, must be availed of to put forward new ideas, and men and women in large numbers must be reasoned with and convinced in order to secure their acceptance.

For secondary education, and through it for our educational organization generally, a long step has been taken in this direction by the proceedings that led up to the appointment of the Committee of Ten by the National Educational Association, and by the exceedingly valuable report which that committee has just laid before the public.¹

For thirty years the National Educational Association has been known as a large body of teachers that assembled annually to listen to addresses and discussions of more or less practical value. It has come to command an attendance of as many as sixteen thousand teachers, of all classes and from every section of the country. Its power and authority have increased with its size and its representative character. In 1892, the directors of this association determined to pass from the field of mere discussion, and begin an educational investigation, under their own auspices and paid for out of their own funds, that should result in some practical gain to the country at large. They accepted the suggestion, made to them after careful deliberation, that the

¹ Published by the Bureau of Education, Washington, D. C., and to be obtained on request.

² The members of the committee were: President Charles W. Eliot, of Harvard University, chairman; Dr. W. T. Harris, Commissioner of Education; President James B. Angell, of the University of Michigan; President James M. Taylor, of Vassar College; Mr. John Tet-

problems connected with secondary education should be vigorously and systematically attacked, and appointed a committee, which has come to be known as the Committee of Ten, to take full charge of the task, at the same time appropriating twenty-five hundred dollars to pay the expenses of the work. The members of this committee were carefully selected with a view to giving representation to the types of educational organization most interested, and to the various sections of the country.²

As finally constituted, the committee was made up of one president of an Eastern university, two presidents of Western state universities and one of a Southern state university, one president of a college for women, one professor in a Western college open to both sexes, one head-master of an endowed academy, one principal of a public high school for both sexes, one principal of a public high school for girls only, and the Commissioner of Education, whose familiarity with the principles and practice of education in every part of the United States gave representation indirectly both to the elementary school interest and to the special students of education.

The procedure adopted by the Committee of Ten is fully described in the report to which it is the object of this paper to direct attention. It may be briefly stated thus:—

After a study of the whole problem, it was decided to appoint nine Conferences of ten members each, — one Conference for each of the main divisions of work that fall properly to the secondary school. The members of the Conferences were selected equally, as nearly

low, of the Girls' High School, Boston, Mass.; Mr. O. D. Robinson, of the Albany (N. Y.) High School; President James H. Baker, of the University of Colorado; President Richard H. Jesse, of the University of Missouri; Mr. James C. MacKenzie, of the Lawrenceville (N. J.) School; and Professor Henry C. King, of Oberlin College.

as possible, from college and school instructors who had attained a reputation in connection with the subject of their Conference, due regard being had also to the representation of various educational interests and the several sections of the country. Conferences were appointed, therefore, on Latin; Greek; English; Other Modern Languages; Mathematics; Physics, Astronomy, and Chemistry; Natural History (Biology, including Botany, Zoology, and Physiology); History, Civil Government, and Political Economy; and Geography (Physical Geography, Geology, and Meteorology). The several Conferences assembled in December, 1892, at convenient points, and eighty-eight of the ninety members were in attendance. Of these eighty-eight, forty-six were in the service of colleges and universities, forty-one in the service of schools, and one was a government official formerly in the service of a university. So admirable are the lists of members of these Conferences that it is difficult to speak of them without enthusiasm. Among the ninety names will be found many that stand in the foremost rank of American scholarship, and no one of the ninety was without valuable educational experience of some kind. This fact of itself gives great weight to their recommendations, and their exhaustive reports, which are appended to the Report of the Committee of Ten, are a mine of educational information and suggestion of the utmost value.

The nine Conferences were in session for three days, and addressed themselves to the task of preparing answers to the searching questions submitted to them by the Committee of Ten. These questions, eleven in number, were as follows:—

“(1.) In the school course of study, extending approximately from the age of six years to eighteen years, — a course including the periods of both elementary and secondary instruction, — at what age

should the study which is the subject of the Conference be first introduced?

“(2.) After it is introduced, how many hours a week for how many years should be devoted to it?

“(3.) How many hours a week for how many years should be devoted to it during the last four years of the complete course; that is, during the ordinary high school period?

“(4.) What topics, or parts, of the subject may reasonably be covered during the whole course?

“(5.) What topics, or parts, of the subject may best be reserved for the last four years?

“(6.) In what form and to what extent should the subject enter into college requirements for admission? Such questions as to the sufficiency of translation at sight as a test of knowledge of a language, or the superiority of a laboratory examination in a scientific subject to a written examination on a textbook, are intended to be suggested under this head by the phrase ‘in what form.’

“(7.) Should the subject be treated differently for pupils who are going to college, for those who are going to a scientific school, and for those who, presumably, are going to neither?

“(8.) At what stage should this differentiation begin, if any be recommended?

“(9.) Can any description be given of the best method of teaching this subject throughout the school course?

“(10.) Can any description be given of the best mode of testing attainments in this subject at college admission examinations?

“(11.) For those cases in which colleges and universities permit a division of the admission examinations into a preliminary and a final examination, separated by at least a year, can the best limit between the preliminary and final examinations be approximately defined?”

The first impression produced by a study of the reports of the special Conferences is that their members addressed

themselves to their task with marked skill and directness. The questions submitted to them are answered, and answered fully, and the answers are accompanied with the reasons therefor. From the standpoint of the old-fashioned preparatory schoolmaster, ignorant alike of the newer school subjects and of the newer methods of imparting life to the old ones, the changes urged by the Conferences may seem many and radical. Yet it will be difficult to disprove the deliberate conclusion of the Committee of Ten that, on the whole, the spirit of the Conferences was conservative and moderate. For example, the Latin Conference distinctly disclaim any desire to see the college admission requirements in Latin increased. The Greek Conference prefer to see the average age of entrance to college lowered rather than raised. The Mathematics Conference recommend the actual abridging of the time now devoted to arithmetic, algebra, and geometry. The Geography Conference agree that the time now spent upon that subject in the schools is out of all proportion to the value of the results secured.

As a matter of course, the Conferences that dealt with the modern languages and the several departments of natural science had the largest amount of work to do. Greek, Latin, and mathematics have been staple school subjects for generations. They are carefully organized and graded. Adequate textbooks are provided. A large body of teaching experience lies behind each of them. Of the other subjects this is not true. They appear only sporadically in schools. Too often they are taught badly, and their educational value is lost. The Conferences dealing with the modern subjects make it clear, in every case, how these evils may be avoided; but their reports are correspondingly longer and more minute than those on the other subjects. The Conference on Physics, Astronomy, and Chemistry, for example, append to their report an elaborate

outline of experiments to be performed and topics to be taught in the secondary school. The reports from the Conferences on History, Civil Government, and Political Economy, Geography, and Natural History are similarly detailed.

The recommendations of the Conference on English will naturally be turned to first; for the tendency to emphasize the importance of the study of the mother tongue, and to improve the methods of teaching it, is now too strong and too general to be resisted, if indeed any one wishes to resist it. The report of this Conference is very short, but it is extremely clear and cogent. In substance, it says that the proper use of English can only be gained by using it properly in exercises of increasing difficulty and variety. The spelling-book is discontinued. Formal grammar is relegated to the subordinate place that it deserves. The reading-book should contain real literature, and not articles on physical science or natural history, and but little sentimental poetry. In the high school it is held that English should have as much time allotted to it as Latin, and that the two points to be kept constantly in mind, in the teaching, are the study of literature and training in the expression of thought. All this advice is so sound that, being now given a quasi-official authority, it should be followed generally in the secondary schools, both public and private.

The fact that education cannot be cut up into artificial periods distinct in themselves is brought out by almost every Conference. They agree in saying that the elementary school must improve, and must cooperate with the secondary school, if the latter is to meet the demands now made upon it. English teaching cannot be neglected from six to thirteen, if good results in it are to be obtained from thirteen to seventeen. It is facts like this that give the reports of the Conferences their chief significance. Though dealing ostensibly and directly with secondary

education only, they reach every nook and corner of the elementary school as well.

It is extremely encouraging, also, to find the nine Conferences and the Committee of Ten, one hundred teachers in all, in cordial agreement on many points of fundamental importance. It is laid down, for instance, that no school subject should be taught in different ways to pupils who are going to college, to a scientific school, or to neither. If a pupil studies algebra or Latin, he should study it in the same way and to the same extent, during the time that he studies it, whether he is to enter Harvard or Yale, the Institute of Technology or the Rensselaer Polytechnic, or a merchant's office. On this point there is not a single dissenting voice. This one principle, if followed in the secondary schools, would immensely simplify their programmes and decrease the cost of their instruction.

The Conferences agree, again, — excepting the Greek Conference, the members of which had no reason for dealing with the subject, — that much work now taken up for the first time in the secondary school should be begun in the elementary school. One foreign language, for instance, history, algebra, and geometry are all capable of excellent use in the upper grades of elementary schools, and are already to be found there in some of the more progressive cities of the country. The discussion on shortening and enriching the school curriculum, begun so recently, has already accomplished thus much.

The four Conferences on language study and the three on natural science also agree among themselves as to the best methods of teaching. The former are a unit in desiring reading aloud in the language to be studied, the association of writing the language with translating from it, and the careful correction of translation, in order to secure in it the use of accurate and idiomatic English.

The three scientific Conferences come to a like agreement. They all believe that laboratory teaching is better than text-book teaching, and that the inspection of laboratory notebooks should be combined with written examinations, in testing a pupil's attainments.

The last, and most important, point of agreement among the Conferences relates to the coördination of the studies in the curriculum. Neither the Committee of Ten nor the Conferences contained a single person who may be classed as a follower of the Herbartian educational theory, as exemplified by Ziller, Stoy, and Rein; yet by purely empirical methods the committee and the Conferences arrive at a striking confirmation of one of the main doctrines of the Herbartians, the coördination and correlation of studies. The scientific Conferences show how the practice of writing accurate descriptions of observations and experiments contributes to the acquirement of a clear, simple English style. The Conference on history wish to have that subject always associated with the study of geography, and the Conference on the latter subject agree with them. The English Conference explicitly ask that the study of the mother tongue and its literature be supplemented by that of the history and geography of the English-speaking race.

Taking these points alone, and passing over the hundred and one questions of detail on which the Conferences pronounce, we have a considerable body of educational doctrine that is sound to the core, and that applies to one school and to one stage of education as well as to another. Principals of schools, teachers of special subjects, and students of education will examine and weigh carefully every recommendation of the Conferences, however minute; but the general reader and the intelligent parent wish most of all to gain an idea of what is unanimously, or even generally agreed upon. That question is substantially an-

swered in the foregoing summary of the Conference reports.

To study carefully the several Conference reports, and to base upon them a general recommendation to the country, was the more difficult part of the task of the Committee of Ten. Any recommendation, to be tangible, must of course include a schedule showing how a school can arrange its programme so as to carry out the ideal of the committee. Four such schedules, or tables, are given by the committee; and while not perfect, — what school programme is? — they are extremely suggestive. The first table is not a programme, but an ordered arrangement, by topics and school years, of all of the recommendations of the nine Conferences. It offers material for a thousand programmes. The second table is given to test the practical character of the Conference recommendations. It includes them all in a four years' course, adding to each subject the number of weekly periods to be allotted to it. When this is done, it is found that for three fourths of the course much more is demanded than any one pupil can follow, but — and this is the important point — not more than a school can teach. The necessary consequence is that there must be in the high school a choice or election of studies. In a small school, this choice will be made by the principal, who will say: "With the staff at my command, I can teach only five subjects of those proposed by the Conferences, in the manner recommended. My school shall therefore be limited to those five." Larger and richer schools can teach more, or perhaps all of the subjects, and then the choice among them will be made by the pupil. This choice is necessary, as the Committee of Ten is careful to point out, to thoroughness, and to the imparting of power as distinguished from mere information; for any large subject whatever, to yield its training value, must be pursued through several years, from three to five times a week.

The committee's third table is based on the second, but uses four as the standard number of weekly periods of study for each subject, except in the first year of a new language. Further reference to this table is unnecessary.

But the fourth table submitted is of great interest, for in it the committee, after due deliberation, makes its own selection out of all the material and suggestions supplied by the Conferences, and submits sample standard programmes of secondary school work. It would be a grave error to dismiss this question of a specific programme as one involving mere detail that might be left to any principal or superintendent of schools. The Committee of Ten itself dissents strongly from that view; for it believes that to establish just proportions between the several subjects, or groups of allied subjects, it is essential that each principal subject shall be taught adequately and extensively, and therefore proper provision for it must be made in the programme. As the committee says: "The method of estimating the amount of instruction offered in any subject by the number of recitation periods assigned to it each week for a given number of years or half years is in some respects an inadequate one, for it takes no account of the scope and intensity of the instruction given during the periods; but so far as it goes it is trustworthy and instructive. It represents with tolerable accuracy the proportional expenditure which a school is making on a given subject; therefore the proportional importance which the school attaches to that subject. It also represents, roughly, the proportion of the pupil's entire school time which he can devote to a given subject, provided he is free to take all the instruction offered in that subject. All experience shows that subjects deemed important get a large number of weekly periods, while those deemed unimportant get a smaller number. Moreover, if the programme time assigned to a given subject be insufficient, the value of that sub-

ject as training cannot be got, no matter how good the quality of the instruction."

In framing the sample programmes, the Committee of Ten proceeded upon some general principles that are of great significance. In the first place, it endeavored to postpone to as late a period as possible the grave choice between a Classical and what is generally known as a Latin-Scientific course. Very frequently this choice determines a boy's future career, and it is important that it be made not only late in the school course, but after excursions into all the principal fields of knowledge have discovered the

boy's tastes and exhibited his qualities. A second principle is that each year of the secondary school course should be, so far as may be, complete in itself, and not made wholly dependent on what is to follow. This is essential, because thousands of pupils are obliged to leave the high school after one or two years, and during that time linguistic, historical, mathematical, and scientific subjects should all be presented to them in an adequate manner. It is also important that provision be made so that each subject may be treated in the same way for all pupils who take it; that time enough be given to each subject to gain from it the training it is

| YEAR. | I. CLASSICAL. Three Foreign Languages (one Modern). | | II. LATIN-SCIENTIFIC. Two Foreign Languages (one Modern). | |
|-------|--|--|--|---|
| | 1 | Latin 5 p. ¹ English 4 p. Algebra 4 p. History 4 p. Physical Geography 3 p. | 20 p. | Latin 5 p. English 4 p. Algebra 4 p. History 4 p. Physical Geography 3 p. |
| 2 | Latin 5 p. English 2 p. German ² [or French] begun 4 p. Geometry 3 p. Physics 3 p. History 3 p. | 20 p. | Latin 5 p. English 2 p. German [or French] begun 4 p. Geometry 3 p. Physics 3 p. Botany or Zoölogy 3 p. | 20 p. |
| 3 | Latin 4 p. Greek ² 5 p. English 3 p. German [or French] 4 p. Mathematics { Algebra, 2 } { Geometry, 2 } 4 p. | 20 p. | Latin 4 p. English 3 p. German [or French] 4 p. Mathematics { Algebra, 2 } { Geometry, 2 } 4 p. Astronomy (½ year) and Meteorology (½ yr.) 3 p. History 2 p. | 20 p. |
| 4 | Latin 4 p. Greek 5 p. English 2 p. German [or French] 3 p. Chemistry 3 p. Trigonometry and Higher Algebra, or History 3 p. | 20 p. | Latin 4 p. English { as in Classical, 2 } { additional, 2 } 4 p. German [or French] 3 p. Chemistry 3 p. Trigonometry and Higher Algebra, or History 3 p. Geology or Physiography (½ yr.), and Anatomy, Physiology, and Hygiene (½ yr.) 3 p. | 20 p. |

¹ Weekly periods.

² In any school in which Greek can be better taught than a modern language, or in which local public opinion or the history of the school makes it desirable to teach Greek in an ample way, Greek may be substituted for German or French in the second year of the Classical programme.

| YEAR. | III. | IV. |
|-------|--|--|
| | MODERN LANGUAGES. Two Foreign Languages (both Modern). | ENGLISH. One Foreign Language (Ancient or Modern). |
| 1 | French [<i>or German</i>] begun 5 p. English 4 p. Algebra 4 p. History 4 p. Physical Geography 3 p. <hr/> 20 p. | Latin, or German, or French 5 p. English 4 p. Algebra 4 p. History 4 p. Physical Geography 3 p. <hr/> 20 p. |
| 2 | French [<i>or German</i>] 4 p. English 2 p. German [<i>or French</i>] begun 5 p. Geometry 3 p. Physics 3 p. Botany or Zoölogy 3 p. <hr/> 20 p. | Latin, or German, or French 5 or 4 p. English 3 or 4 p. Geometry 3 p. Physics 3 p. History 3 p. Botany or Zoölogy 3 p. <hr/> 20 p. |
| 3 | French [<i>or German</i>] 4 p. English 3 p. German [<i>or French</i>] 4 p. Mathematics { Algebra, 2 } 4 p. Astronomy ($\frac{1}{2}$ year) and Meteorology ($\frac{1}{2}$ yr.) 3 p. History 2 p. <hr/> 20 p. | Latin, or German, or French 4 p. English { as in others, 3 } 5 p. English { additional, 2 } Mathematics { Algebra, 2 } 4 p. Mathematics { Geometry, 2 } Astronomy ($\frac{1}{2}$ yr.) and Meteorology ($\frac{1}{2}$ yr.) 3 p. History { as in Latin-Scientific, 2 } 4 p. History { additional, 2 } <hr/> 20 p. |
| 4 | French [<i>or German</i>] 3 p. English { as in Classical, 2 } 4 p. English { additional, 2 } German [<i>or French</i>] 4 p. Chemistry 3 p. Trigonometry and Higher Algebra, or History 3 p. Geology or Physiography ($\frac{1}{2}$ yr.), and Anatomy, Physiology, and Hygiene ($\frac{1}{2}$ yr.) 3 p. <hr/> 20 p. | Latin, or German, or French 4 p. English { as in Classical, 2 } 4 p. English { additional, 2 } Chemistry 3 p. History 3 p. Trigonometry and Higher Algebra Geology or Physiography ($\frac{1}{2}$ yr.), and Anatomy, Physiology, and Hygiene ($\frac{1}{2}$ yr.) 3 p. <hr/> 20 p. |

able to give; that the different principal subjects be put upon an approximate equality in the matter of time-allotment; that all short courses given for purposes of information only be excluded; and that the instruction in each of the main lines — namely, language, history, science, and mathematics — be continuous. With all of these principles in mind, the Committee of Ten framed the four sample programmes given herewith, the names by which they are designated being based on the amount and character of foreign language study in each.

In adopting twenty as the maximum number of weekly periods of school work, the committee had two qualifications in mind: first, that at least five of the

twenty should be given to unprepared work; secondly, that laboratory subjects should have double periods whenever that prolongation is possible. Such subjects as music, drawing, and elocution, often found in secondary schools, are purposefully omitted from the programmes, it being left to local authorities to determine how they shall be introduced.

Inspection will show how carefully the programmes have been framed with reference to being carried out economically in a single school. With few exceptions, the several subjects occur simultaneously in at least three of the four programmes, and with the same number of weekly periods allotted to them. From a practical point of view this is a most important ar-

rangement. Some minor difficulties were caused by adhering to the rule laid down by all of the language Conferences, namely, that two foreign languages should not be begun at the same time, and by limiting the course to four years. A six years' programme would be far easier to construct.

Critical examination of the committee's programmes discloses grave defects in the most important of all, the Classical. It does not provide continuous study in science, for that great department is not represented in the third year at all. History is similarly interfered with, and there would also be a break in the mathematical course if the option given in the fourth year were exercised in favor of history. The difficulty lies, I believe, in trying to include history in a four years' classical course. The classics themselves teach history in an admirable way, if the instruction is good. A wealth of historical knowledge is grouped about the reading of Cæsar, Cicero, and Vergil, Xenophon and Homer, the usual secondary school authors; and in those which are themselves professedly historical, a great gain would follow from a more thorough study of the subject matter. If history, then, were dropped entirely from this programme, a modern language could be begun in the first secondary school year, the English course extended in the second year, and no break in the science instruction would be necessary.

Defects in the other programmes exist, but they are not so glaring as those just pointed out in the Classical. For instance, there is no continuity in the history course of the Latin-Scientific or Modern Language programme; and in both of the last-named there would be a break in the mathematics course also, should the pupil exercise his option in favor of history.

The following table discloses at a glance in what relation the four programmes stand to each of the four great divisions of secondary school study. The figures in the several columns represent the total

number of weekly periods given during the entire four years, in each of the four programmes, to the main subjects. No scheme can be called radical that proposes to give 52.5 per cent of all secondary education whatsoever to language study, or, adding history, 62.8 per cent to the humanities. That this would be the result of following the committee's recommendations the table shows.

| | Classical. | Latin-Scientific. | Modern Languages. | English. | Total. |
|-------------------|------------|-------------------|-------------------|----------|--------|
| Language | 50 | 42 | 42 | 34 | 168 |
| History | 7 | 6 | 6 | 14 | 33 |
| Mathematics . . | 14 | 14 | 14 | 14 | 56 |
| Natural Science . | 9 | 18 | 18 | 18 | 63 |
| Total | 80 | 80 | 80 | 80 | 320 |

This table brings out other interesting facts. It shows how closely allied are the Latin-Scientific and Modern Language courses, and how small a part natural science is to play in the revised scheme, after all. The one quarter of the whole school time that the scientific Conferences asked to have given to natural science is not so given in any of the programmes, though it is closely approached in three of them.

Although the report itself contains no reference to European experience or practice, it will be interesting to compare the committee's recommendations with the programmes of European secondary schools. Take, for example, the Prussian Gymnasium, the Tertia and Secunda of which nearly correspond to the American secondary school years, and the French Lycée, where the classes known as Cinquième, Quatrième, Troisième, and Seconde are in about the same relation. There the division of time is as follows:—

| PRUSSIAN GYMNASIUM. | | | | | |
|---|---------------|--------------|----------------|---------------|--------|
| SUBJECTS. | Unter-Tertia. | Ober-Tertia. | Unter-Secunda. | Ober-Secunda. | Total. |
| Religion | 2 | 2 | 2 | 2 | 8 |
| German | 2 | 2 | 3 | 3 | 10 |
| Latin | 7 | 7 | 7 | 6 | 27 |
| Greek | 6 | 6 | 6 | 6 | 24 |
| French | 3 | 3 | 3 | 2 | 11 |
| History and Geo- graphy | 3 | 3 | 3 | 3 | 12 |
| Mathematics . . | 3 | 3 | 4 | 4 | 14 |
| Natural History, Physics, and Chemistry . . . | 2 | 2 | 2 | 2 | 8 |
| Total | 28 | 28 | 30 | 28 | 114 |

| FRENCH LYCÉE. | | | | | |
|--------------------------------------|-----------------|------------|------------|----------|--------|
| SUBJECTS. | Cinquième. | Quatrième. | Troisième. | Seconde. | Total. |
| French | 3 | 2 | 2 | 3 | 10 |
| Latin | 8 | 5 | 5 | 5 | 23 |
| Greek | 2 ¹ | 6 | 5 | 5 | 18 |
| Other Living Lan- guage | 1½ | 1½ | 1½ | 2½ | 7 |
| History | 1½ | 1½ | 1½ | 1½ | 6 |
| Geography . . . | 1 | 1 | 1 | 1 | 4 |
| Mathematics } Natural Science } | 1½ ² | 1½ | 3 | 1½ | 7½ |
| Total | 18½ | 18½ | 19 | 19½ | 75½ |

¹ Greek is not begun until the second half of the year. Previous to that time ten hours weekly are given to Latin.

² This time is divided between observation lessons on rocks and plants and arithmetic.

It is seen at once that the German

boy is called upon for far more work, measured in terms of time, than the American boy; though the difference is not so great as it seems, for "learning lessons" out of school is not so prominent a feature in German as it is in American education. The French boy, under the existing revised programme, does about what is to be expected of the American, but his time is differently distributed. The French device for preventing "scrappy" courses from becoming intolerable is to assign them few but long periods. For example, history, in the Lycée, is taught but once a week, but that once it occupies an hour and a half consecutively, so that much more is accomplished than in two periods of forty-five minutes each. As a rule, the recitation or lesson periods in France are considerably longer than those usually found elsewhere.

In spite of the differences between them, however, it is clear that the proposed American Classical programme is not very unlike those in vogue on the Continent. Were the comparison extended to the other programmes, — the Latin-Scientific, the Modern Language, and the English, — a similar relation to the French and German programmes of like character would be found to exist. The higher classes of the Gymnasium and Lycée have still a great advantage over the American secondary school in the fact that the work leading up to them is carefully organized and developed, and may be depended upon. The American grammar school, or better, the upper grades of the elementary school, on the contrary, is only here and there efficient. For two generations the so-called grammar school has conspired with the lower or primary grades to retard the intellectual progress of the pupil in the interest of "thoroughness." The arithmetic of many puzzles, the formal grammar, and the spelling-book with its long lists of child-frightening words have been its weapons. Slowly and with a struggle these are being wrested from it. New knowledge is being introduced

to illustrate and illuminate the old, and higher processes to explain and make easier the lower. All this promotes true thoroughness, and also allows the child's mind to grow and develop as nature intended it should, and as it often does in spite of the elementary school, not because of it. Therefore, every year pupils are reaching the high school better prepared for its peculiar work; and it is not unreasonable to hope that in ten years the secondary school may assume, in the case of its youngest pupils, an ability to use simple English correctly, a knowledge of the elements of algebra and geometry, and of some epoch or movement in history. Perhaps even the study of a foreign language will have been begun.

From the standpoint of the elementary school, therefore, the Committee of Ten is not unreasonable in its ideal, nor have the Conferences proposed anything that is impracticable. The same is true when the report is viewed from the standpoint of the colleges, though here, too, reform and improvement are necessary. As is well known, college admission examinations not only differ widely among themselves, but vary from year to year. Perhaps no one of them is too high to admit of a well-taught boy entering college at seventeen, but many are so low that the same boy ought to pass them successfully at fourteen, or even earlier. The colleges have been injuring higher education in America by giving their own idiosyncrasies as to admission examinations free scope, instead of agreeing together upon a policy.

I do not mean that the admission examinations of all colleges should be uniform; that is not necessary. But, to quote from the report, "it is obviously desirable that the colleges and scientific schools should be accessible to all boys or girls who have completed creditably the secondary school course." If the recommendations of the Committee of Ten are carried out, — and there is every reason to hope that they will be, — the "com-

pletion of a secondary school course" will have a definite meaning, and the colleges can deal with it accordingly. The graduate of a secondary school will have had four years of strong and effective mental training, no matter which of the four school programmes he has followed, and the college can safely admit him to its courses. This single step will bring about the articulation of the colleges and scientific schools on the one hand with the secondary schools on the other, — an articulation that has long been recognized as desirable for both classes of institutions and for the country.

The question will naturally arise, — it arose in the minds of the Committee of Ten, — Can the improvements suggested be effectually carried out without a very considerable improvement in the training of the teachers who are to do the work? To this question but one answer, a negative one, can be given. But, on the other hand, the opportunities now available for the higher training of secondary school-teachers are many times as numerous and as valuable as they were a decade ago. It is true that the hundreds of normal schools are accomplishing very little in this direction, even the best of them; but the colleges and universities, where the mass of secondary teachers will always be educated and trained, have now awakened to a sense of the responsibility that rests upon them. Harvard and Yale, Columbia and Cornell, Michigan and Illinois, Colorado and Stanford, and many others have organized special departments for the study of education, and one or two of them are manned and equipped more thoroughly than any similar departments in Europe. The effect of this great expansion of activity in the study of education cannot fail to be widely felt within the next few years. The colleges have needed, and some of them still need, an enlargement of sympathies, as do the normal schools. The colleges have focused their attention and energy too largely upon their own special work, and have paid no

heed to what was going on about and beneath them. The normal schools have thought it sufficient to study more or less psychology, and to expound more or less dubious "methods" of teaching, and have neglected the larger field of genuine culture and the relative values of studies. Better apparatus and more teachers will not of themselves lift the college or the normal school out of its rut. Only a full appreciation of the relations of these institutions to the work of education as a whole can do that.

And finally, what is the effect of this prolonged and earnest investigation upon that ideal of a liberal education that has so long been held in esteem among us? It will not have escaped notice that only one of the committee's four programmes makes a place for the study of Greek, while one excludes both Greek and Latin. It is true that these are recommended as ideal arrangements, and that it is expressly stated in the report to be the unanimous opinion of the committee that, "under existing conditions in the United States as to the training of teachers and the provision of necessary means of instruction, the two programmes called respectively Modern Languages and English must, in practice, be distinctly inferior to the other two." Nevertheless, it seems clear that the committee has been able to disentangle the real from the accidental in our conception of a liberal education, and has put the former forward in all its strength. It has not forgotten the precept of Aristotle, that "there are branches of learning and education which we must study with a view to the enjoyment of leisure," and that "these are to be valued for their own sake." "It is evident, then," the philosopher continues, "that there is a sort of education in which parents should train their sons, not as being useful or necessary, but because it is liberal and noble. Whether this is of one kind only, or of more than one, and if so, what they are and how they are to be imparted, must

hereafter be determined." It is just this determination that the committee has made; and it is a determination that each age, perhaps each generation, must make for itself. Between a diminution of the time given to classical study and a relapse into quasi-barbarism there is no necessary relation of cause and effect. May not the American say, as did Paulsen of his countrymen, that "idealism generally, if we will use this word of so many meanings, is a thing which is not implanted from without, but grows from within, and that, in particular, the idealism in the character of the German people has deeper roots than the Greek and Latin lessons of our gymnasia"?

Mr. Lowell's hope, expressed so eloquently at the Harvard Anniversary, will not be disappointed by the recognition of a broader basis for human culture. Every one may accept the recommendations of the Committee of Ten, and still say with him: "I hope the day may never come when the weightier matters of a language, namely, such parts of its literature as have overcome death by reason of their wisdom and the beauty in which it is incarnated, such parts as are universal by reason of their civilizing properties, their power to elevate and fortify the mind, — I hope the day may never come when these are not predominant in the teaching given here. Let the Humanities be maintained undiminished in their ancient right. Leave in the traditional preëminence those arts that were rightly called liberal; those studies that kindle the imagination, and through it irradiate the reason; those studies that manumitted the modern mind; those in which the brains of finest temper have found alike their stimulus and their repose, taught by them that the power of intellect is heightened in proportion as it is made gracious by measure and symmetry. Give us science, too, but give first of all, and last of all, the science that ennobles life and makes it generous. . . . Many-sidedness of culture makes our vision clearer and keener

in particulars. For after all, the noblest definition of Science is that breadth and impartiality of view which liberates the mind from specialties, and enables it to

organize whatever we learn, so that it becomes real Knowledge by being brought into true and helpful relation with the rest."

Nicholas Murray Butler.

HIS VANISHED STAR.

XVIII.

THE anomaly of administering upon one's own estate Lorenzo Taft was permitted in some sort to experience. A definite realization of finality attended his meditations, as he sat bending over the embers in the great fireplace of the store, in the rain-clouded morning that rose upon the conclusion of his labors of removing the still and destroying all its approaches. His vocation was gone, and naught remained. He had no more affinity for a law-abiding occupation than a fox or a wolf. The possible profits that might stick to his hands in the process of the conversion of the goods upon the shelves from the wholesale ratio to the retail failed to allure him, for the store had never been aught but a "blind." The furrow was no thoroughfare. That wild gambling with the chances of the sun and wind and the rain in its season, and often out of its season, known as farming, and doubtless permitted by the law only because it insures its own punishment, was risky enough to jump with his humor, but the stakes were hopelessly inadequate. He could not look forward, and the glance backward over the shoulder needs a good conscience to commend the prospect.

Now and again he lifted his heavy boot and kicked the embers together fiercely, as if at great odds with his thoughts and his own counsels. Like many another, he undervalued his success, its hairbreadth jeopardies and its difficulty

of attainment, now that it was fairly secured. It seemed to him a slight thing, the device of his quick wits to insure his safety, and his satisfaction in its triumphant exploitation had already evanesced. Had it been possible to reestablish the status of yesterday, doubtless he would have hardily risked the discovery of the still, the disclosure of Larrabee, the capture of Espey, Dan Sykes's drunken tongue, and, as a result of these, the "shootin'-irons" of the "revenuers" and the sentence of the federal court. But gunpowder as a factor in a scheme admits of no second thoughts.

He even upbraided his own acumen that, in the emergency, he had sought with an eye single the safety of himself, his one remaining comrade, and the apparatus, regardless of all considerations of enmity. But now that judgment was satisfied and escape certain, vengeance clamored.

Whenever he thought of Larrabee outside, triumphant, free, enjoying an absolute immunity from the law by reason of the destruction of the moonshiners' lair, which rendered the discovery of his complicity impossible, Taft frowned heavily and swore beneath his breath, and kicked the unoffending embers into a new adjustment, so bitter was the fact that his own safety made Larrabee's protection complete. Even poor Dan Sykes's exile — and doubtless the young sot was well on the way to Texas by this time — was as necessarily a measure taken in Larrabee's behalf as if it were