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THE CANADA  
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OCTOBER, 1884.

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THE COMMON SCHOOL OF A QUARTER CENTURY HENCE.\*

BY JAMES BALDWIN.

TAKE it for granted that the subject which interests us most to-day, is not a question of prophetic verity, but rather a discussion of facts and principles having a present practical value and application. The common school of the year 1884 is much nearer to us than the common school of a quarter century hence; and, bearing this thought in mind, you will pardon me if, while depicting in this paper a somewhat ideal but altogether possible future, I direct your attention primarily to certain features in the work of the common school of to-day.

To establish a basis for our speculations and inquiries, let us briefly notice the progress which has been made in educational matters during the quarter of a century just past. Within that time we have seen the inception and growth of the graded school idea; the county superintendency has been established; the system

of examining and licensing teachers has been improved and perfected; the State Normal School has been founded, and its necessity fully demonstrated by the efficiency of its work; county institutes and township institutes have been established by law; private normal schools, and so-called normal institutes, have sprung up in almost every county, annually affording instruction to thousands of preparing teachers; in nearly every city and town "palatial" school buildings have been erected; the village and district school-houses have been very generally improved; the length of the school year, in most localities, has been doubled and even trebled; the salaries paid to teachers have been steadily—but oh! so slowly—advanced; the demand for trained workers has been constantly increasing; the opportunities offered to teachers for acquiring a professional education have become almost unlimited. Then, too, as regards the internal economy of the schools, there

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\* An address delivered before the State Teachers' Association, Indiana.

have been like improvements. The methods of instruction, in most branches, have been revolutionized. Who is there who teaches reading, or arithmetic, or grammar, as it was taught twenty-five years ago? If you can find such an one, go write the word *old-fog*, under his name. Not only have we discovered new ways of teaching these old-fashioned branches, but we have learned that reading, writing, and arithmetic no longer suffice as a liberal Common School education. Within the past quarter of a century, we have invented object lessons, and language lessons, and natural history lessons, and the Grube method, and phonics, and diacritics, and the reformed spelling, and the Quincy method, and "diagram-analysis," and, lastly, we have learned to dissect everything until nothing is left but the bare skeleton of "principles" and "elements."

When we enumerate that which has been done in the educational field, and think of that which remains to be done, we almost begin to doubt whether any further progress is possible. We are tempted to believe that, for us, the millenium is at hand, and that, save a substantial increase in wages, or in the length of the school term, scarcely anything more is desirable. Having been, like the rest of the world, awakened by the Gabriel-horn of progress, we have eagerly joined in the universal struggle to "catch-on" to the cannon-ball train of civilization. Some of us although barely securing a place on the rear-platform of that train, can scarcely be persuaded that we are only passengers; we fondly imagine ourselves, not only the conductor and the engineer, but the engine itself. We fail to perceive that everything else about us has been making substantial and very rapid progress, and that at best, we have not more than kept even pace with the general onward movement.

I would by no means disparage or decry anything that has been done by way of actual improvement in the system of Common School education, but I have no patience with that kind of self-gratulation, to which even teachers are sometimes given, which permits the contemplation of our success to eclipse or conceal the magnitude of our failures. The fact is, that the past quarter of a century has been with us largely a period of transition and experiment; and in estimating our rate of progress we are apt to forget some things. What, after all, are "palatial" school houses, and trained teachers, and improved methods, and all the elements of advancement to which I have alluded, but merely the means devised or established for the attainment of certain ends? And yet it is to these, and only such as these, that we invariably point as evidences of the progress which we have been making. We say not a word about the children in the schools? or, if we mention them at all, it is only to speak of them as necessary adjuncts to the "palatial" buildings, the trained teachers, the improved methods, or—what is more common—long and useless tables of statistics. Of course, when the matter is brought home to us, we are ready to acknowledge that all this expenditure of labour and capital, and of pedagogical brain and sinew, is made for the benefit of these children; that the object for which the Common School was established and is maintained is to prepare them to become useful citizens, strong thinkers, able doers, well equipped for life's struggles, well worthy to enjoy life's gifts, filled with noble aspirations, inspired with heavenly aims.

Judged, then, rigidly by the standard of genuine results, what progress have we made? What progress are we making?

Compare the pupils turned out from our schools to-day with those of a

quarter of a century ago. Have they more rational ideas of the problems of life and the duties of citizenship? Are they clearer thinkers? Are they better doers? Are they purer in morals? Are they better able to earn for themselves a living? Or to confine ourselves more nearly to the ordinary standards of school-room work, —how many spell more accurately? How many write more elegantly? How many cipher with more correctness and a clearer understanding of processes? How many habitually speak their native tongue with greater propriety? What proportion of them all remain in school until they have acquired a fair education? To what extent has illiteracy been diminished in the community?

It seems to me that, in estimating the genuine value of the work which we are doing, these questions are of vital importance. And the point which I wish particularly to make is, that a quarter of a century hence, when we shall have worked our way through and out of this necessary transitional period, these questions and others of similar import will be the first to be considered.

The drift of public opinion is already directed that way. That is the cause and the meaning of the recent criticisms upon the public schools, of which some of us are so extremely impatient. It is easier to dismiss these criticisms with the epithets "ignorant" and "senseless" than it is to disprove their applicability. The voice of the people is not so much for reform as for better and more substantial results.

Say they to us: "We have been liberal with you, and long-suffering. We have provided for your education at the expense of the State. We have passed laws obliging you to qualify yourselves, after a sort, for the duties of your profession. We have supplied you with every conveni-

ence for the prosecution of your work. We have paid you liberally, and in many cases extravagantly, for all the good that you have accomplished. We have allowed you to experiment with our children, lo! these many years. We have patiently observed your processes of dissection and hair-splitting, and have not opened our mouths. We have listened to your fine talk about methods, and when we failed to discover their applicability, we meekly considered that the fault lay in our own ignorance. Now what we demand of you is that you settle upon some-well founded basis of operations, and begin to produce results commensurate with all this outlay of time, talk, talents and the school fund."

Such being now the turn in tide of popular opinion, we may safely predict that during the coming twenty-five years, the methods which we have been so long in maturing will have been fully tested, and that only those will be retained which are capable of leading to the most satisfactory results. The Model School, therefore, of a quarter century hence will be a school wherein honest, common-sense efforts to promote the highest intellectual and moral development of the pupils are not hampered and obscured through vain experimenting with fine-spun theories.

Is it necessary to specify minutely the distinctive features of that school?

I have been urged to give you a picture of the Common School of a quarter century hence. You will pardon me if, in order to heighten certain contrasts I draw two pictures instead of one. For I take it that, in the year 1908 not all schools will have reached the same standard, and that then, as there are now, there will be not a few schools lagging full twenty-five years behind the times. I shall, therefore, exhibit two types of the Common School as I imagine them

existing at that period; and after you have looked first on this picture and then on that, you may draw your own conclusions.

You may imagine, if you please, that the wheels of time have been turned forward just twenty-five years and that we are living in the first decade of the twentieth century—somewhat older and perhaps a trifle wiser.

A public-spirited citizen in one of the most enterprising towns is conversing with a stranger. He points with an air of satisfied pride to a large and really elegant building some blocks away.

"That," says he, "is our school house. It is the one thing of which our people are very justly proud; for we regard it as the best possible evidence of our thrift, enterprise and liberality."

The admiring stranger is pleased with the architectural beauty of the building.

"Surely," he remarks, "in a building so beautiful and imposing, one should expect you to have an excellent school."

"Well, that is true," answers the public-spirited citizen. And I suppose that our school is at least as good as the average. The superintendent is a good fellow—clever to everybody; and great on system, and most of the teachers are graduates of the High School—well deserving girls who can afford to work cheap. The school-house cost us a deal of money; we had it built upon the hill there, so that it could be seen from both railroads, you know; School Board expended so much on the outside of it, to make it look well, you know, that they can't afford many extras inside. And after all, it doesn't matter, the school does very well."

The stranger suggests that they pay a visit to the school, and see what is actually being done inside

those imposing walls. But the public spirited citizen demurs.

"We citizens are not in the habit of visiting the schools," he says. "We have so much confidence in the ability of our teachers that we think such visits altogether unnecessary,—and especially so since the children might be annoyed and disturbed by our presence.

The admiring stranger, in order to satisfy his curiosity, determines to visit the school alone. He finds the interior of that palatial building very different from the exterior. The hallways are bare, cold and dark. The school-rooms, although large enough and light enough, are devoid of both beauty and comfort. Ill-ventilated, always too warm or too cold, constructed upon the "one and only" plan of convenience and rectangular precision, they contain not one thing that is pleasant or attractive to the eye of a child. The walls are rough-finished, and the furniture, though designed to be handsome, is made of the very strongest patterns and materials: everything—even to the countenances of the children—bears a prison-like aspect. The admiring stranger, commenting upon the bare discomfort which everywhere prevails, is informed that this is the fault neither of careless teachers nor of an economical school board, but that it is the outcome of a very popular notion that anything like genuine, home like comfort in a school-house is as much out of place as a pig in a parlour.

Nobody expects to find culture and refinement, or even good manners, in a Public School. It is true that the teachers give the pupils regular lessons on morals and manners; indeed, they oblige them to memorize whole pages of moral precepts and rules regarding their behaviour on the street and at the dinner-table. But they never think of these rules as being of any practical use. Like the definitions

learned in their grammar and arithmetics, they are memorized only to be had in readiness when examination day arrives.

If the stranger has any doubts of the truth of the explanation, he has them dispelled when, shortly afterwards, he observes the pupils enjoying the "democratic freedom of the play ground." The superintendent remarks that, although the children are a little rude at such times, yet this rudeness is only the natural overflow of pent-up spirits, and should in no wise be checked or discouraged. The stranger learns, moreover, that the recess is a time honoured institution whose origin dates back even to prehistoric times. It has many advantages to recommend it. First, the children march out and in, keeping step with the beat of a drum, it affords an excellent opportunity—to display the fine military discipline which is maintained in the school. Second, since no child,—whatever the state of its health, the sufficiency of its clothing or the condition of the weather—is excused from participating in the exercises of recess time, its value as a preventive of good health is undisputed. Third, it has a very decided and beneficial influence towards regulating the price of real estate in the neighbourhood, thus aiding labour in its struggles against monopolies. Fourth, it is a practical, every-day exponent of the foundation-principle of our government, that all men are created equal,—for here, the rich and the poor meet together, and all lines of caste are forgotten. Fifth, as a promoter of morals it has no equal or substitute; for through its agency, the pure minded, the gentle, the well-taught are made strong and noble, and self-controlling by the daily hearing and seeing of things rude, impure and vile. Virtue is of little worth that has not been tried by temptation.

The stranger suggests that possibly it would be well to put a saloon in

the basement of the building in order to teach lessons of temperance to the boys.

When the hour of "democratic freedom" has expired, and the children with muddy feet and muddier minds have returned to their books, the stranger has time to examine into the methods of instruction pursued in the school. Both teachers and pupils, judging from their habitual attitude, seem to have taken lessons from the stiff rectangularity of the school-room walls. Every movement is regulated by a clock, a bell, and a programme. The pupils, sitting straight and stiff at their desks, look like rows of statues in an exhibition of Mrs. Jarley's wax-works. They memorize definitions and rules, but have no idea of their meaning or application.

Even the youngest children can tell how many bones are in the human body; but not one of them know what the human body is. Every problem in arithmetic is solved after a prescribed form which entirely obscures the vital points of the process. The pupils—especially the younger ones—can read with the book closed as well as with it opened. Almost all of them can tell a macron from a breve, and a diæresis from a semi-diæresis, but not one of them can pronounce correctly the name of the second month in the year. They have a school-room language which nobody expects them to use elsewhere. (For instance, they are sharply corrected if they remark that "John has asked if the dog carries a basket." They must say "John has awsked if the dahg carries a bawsket.") If they study books, they study them merely as a collection of dead words; if they listen to the teacher's oral lessons, it is only as a sinner listens to a sermon on Sunday. The school is evidently modelled after the Stuttgart system of education, "on the principle not of cherishing and correcting nature,

but of rooting it out, and supplying its place with something better.

The whole process of teaching is conducted with the stiff formality of military drilling; everything goes on by statutes and ordinance; there is no scope for the exercise of free-will, no allowance for the varieties of original structure. A scholar may possess what instincts and capacities he pleases; the regulations of the school take no account of this; he must fit himself into the common mould, which, like the old giant's bed, stands there, appointed by superior authority, to be filled by the great and small." (See Carlyle's Life of Schiller.)

Having made these observations the admiring stranger repairs to the superintendent's office in order to learn from that functionary something more regarding the general work of the school.

"You will find in each room," kindly explains the superintendent, "a machine labelled *method*, by which every movement, even to the daily growth of the pupils, is perfected and harmonized. In this house, my dear sir, method is everything; and every machine has been manufactured to order. It is the teacher's chief duty to put her class in at one end of the machine, and then turn the crank. At the close of each month, the pupils are measured with an examination tape-line furnished by myself, and all whose stature falls below a fixed standard, are returned to a lower room to be ground over again by the machine which ground them last year. Sometimes a scholar is ground over three or four times before he is sufficiently pulverized.

"You see, here in my office, this time-table, this almanac, and this large machine labelled *system*. By means of these simple appliances the whole machinery of the school is regulated. I determine not only how many turns of the crank each teacher

shall give to her machine during the year, but I can tell you at any moment the exact position of any crank, and just where it will be at any future special day and hour. Here is another little apparatus called a 'course of study,' by which I determine the precise amount of intellectual pabulum to be given to each class during a period of twelve years; by its aid I regularly divide that pabulum into monthly rations, and I can calculate to a certainty the cubic inches of mental growth that each ration will induce."

"And what kind of manhood and womanhood do you induce by these processes?" innocently inquires the admiring stranger.

"We have nothing to do with that," answers the superintendent, resuming the study of a long column of "percentages." "It is the duty of the family, the church, and the Sunday-school to attend to the manhood and womanhood question. The Public School has enough to do to bear its own burdens, without shouldering responsibilities which do not belong to it."

Are you disappointed with the picture I have drawn? I have shown you, if not *the* school of a quarter century hence, at least one of the schools which, no doubt, in certain localities will linger until that time. There are, in every profession, persons who, under the plea of conservatism, come lagging along full twenty-five years in the wake of the world's advancement. And many such will still be living in the blessed year of Our Lord 1908. It is idle to hope that the millenium will dawn within the next quarter of a century; and until that time, we may expect to find quacks and incompetents innumerable in the ranks of the teaching profession. There will continue to be institutions making high professions, which might have *sham* written all over their walls

and ceilings, and nobody slandered. The best that we can do to diminish their number, is to speak out fearlessly in denunciation. A quarter century hence, there will still be those who can not understand that the public school was established for any other purpose than to afford them employment. The majesty of the law will still be required to oblige some teachers to educate themselves. Mannerisms and hobbies will continue to be mistaken for methods. Graduates will still be turned out from the high school, ignorant of the things which they need most to know; and the great ends of public education will, in many instances, still be obscured by the artificiality of the means employed in the school. I am glad to believe that this state of affairs will be, by no means, general; and I hasten to present my second picture—a picture of the common school of a quarter century hence. If you find fault with my first for its reality, you may criticize my second for its ideality. Yet, I hope that, before even the half of a quarter century has elapsed, you may know from your own observation that such a picture is not altogether visionary.

You may imagine yourselves again as living in the earlier years of the twentieth century. Our stranger is in another enterprising town, not many miles away from the first. But here, the public spirited citizen does not point out the school-house from a distance, dilating upon its architectural beauty and the liberality of those who have built it. He says: "If there is one thing for which we can justly thank heaven, it is our excellent school. Come with me and see what we are doing for our children."

As the two approach the building, the admiring stranger observes that, although its exterior is not wanting in architectural elegance, its appearance is rather homelike than

palatial. It has evidently been built with an eye to comfort and convenience rather than show. It is no vaulted sepulchre. Its walls are neither shams themselves, nor do they serve to conceal shams. The school yard is not a barren Sahara of sand and pebbles, an arena for the "democratic freedom of recess-time," but a well kept lawn with borders of flowers, and here and there a shade tree or a fountain. Inside, the hallways are light warm and airy, impressing the visitor at once with some of that feeling of cheerfulness and good nature which they find to pervade the whole atmosphere of the place. There are pictures on the walls, there are flowers in the windows, there are books on the tables, there is an air of genuine culture in everything they see. No child, however rude or low-born, could resist the influence of such a place—could pass his school days in the midst of such surroundings without being raised and ennobled by them.

"It is all for the children," remarks the public-spirited citizen.

The visitors pass from room to room, and inspect the work which is being done. There are no grinding machines there. The teachers are at their posts, enthusiastic, wide-awake, efficient, but not manipulators or cranks. No one has so many pupils but that she can fully understand the capabilities, and attend to the wants of each individual. She is not worried by fears that she may fail to accomplish a definite amount of work within a specified time, or that a portion of her class will be unable to "make their grade." The results of her labour are not estimated by the figures scored at the monthly examinations, nor measured by the number of promotions made within the year; but the growth of each individual pupil, in intelligence, in gentleness of manners, in earnestness of purpose, determines

how well she has performed her whole duty. The methods which she employs are, as nearly as possible, nature's own methods, likeliest unto those "by which every genuine mother brings up her family, preserving the individuality of each, and weaving the whole into the golden web of household unity."

Each child is given that kind and amount of intellectual nourishment that he can best assimilate, and that will most promote his strength. If the superintendent applies his tape-line measure, it is to test the child's own capacity for growth, and not to compare his stature with some arbitrary standard fixed for the class. The pupils progress step by step, from one plane of advancement to another, as their individual strength and fitness permit—the strong not being held back by the weak, nor yet by time tables, and the weak not being carried through on the skirts of the strong. No attempt is made to mould two pupils in the same pattern. All men may be equal, but they possess diverse gifts; and not only is this truth recognized in the school, but it is made the leading principle in the direction of the work both of teachers and of pupils.

"And what branches of study do you teach in this school?" inquires the admiring stranger.

"As to that," answers the superintendent, "we teach a few things, but we teach those few things well. All who graduate from the High School

are able to write their own commencement exercises; they can read aloud to the family at home without stopping to spell the words; they can write good business letters, and keep their own business accounts; they know the principles underlying and controlling a free government, and when they are old enough to vote, they can read their own tickets; they have a taste for good reading, and an unquenchable desire to extend the bounds of their knowledge. Some of them can do very much more than this, but the extent of their intellectual attainments, aside from this, is largely proportionable to the gifts with which Nature has endowed their minds."

"Not all the pupils in the schools," continues the superintendent, "will be teachers, or authors, or lawyers, or preachers, or politicians, or artisans; but all may at some time, be obliged to earn their own living; and all can, and ought to be gentlemen and gentle-ladies. Some will be thinkers but more will be doers; some will be head-workers, but more will be hand-workers. The school assumes none of those duties which belong distinctively to the family or to the church; it teaches its pupils neither a trade nor a religion; but it does assume so to strengthen and cultivate the mind and heart as to render the soul susceptible of the best and noblest influences, and the hand capable and willing to perform all that in the providence of God shall be required of it."—*Indiana School Journal*.

THE *Popular Science Monthly* argues for books printed on green paper and the use of red, yellow, or white ink in the place of black. "For thousands of years," it says, "from papyrus to superfine glittering note-paper, our eyes have been exposed to the deleterious influences of black and white. The change to green, yellow, and red, or no some other agreeable reflective tints, is

eventually certain to take place. Then the eyes of the scholars and of the students will no longer be wearied with the myopian contrast of black and white, but strengthened and refreshed by congenial colours: and to pore over the pages of a book would be no more fatiguing to the eyes than gazing on a verdant prairie decorated with variously-tinted flowers."

WHAT IS A LIBERAL EDUCATION?

BY PRESIDENT CHARLES FLIOT.

(Continued from page 275.)

CLOSELY allied to the study of history is the study of the new science called political economy, or public economics. I say the new science, because Smith's "Wealth of Nations" was not published until 1776; Malthus's "Essay on the Principle of Population" only appeared in 1798; and Ricardo's "Political Economy and Taxation," in 1817. The subject is related to history inasmuch as it gleans its most important facts by the study of the institutions and industrial and social conditions of the past; it is the science of wealth in so far as it deals with the methods by which private or national wealth is accumulated, protected, enjoyed, and distributed; and it is connected with ethics in that it deals with social theories and the moral effects of economic conditions. In some of its aspects it were better called the science of the health of nations; for its results show how nations might happily grow and live in conformity with physical and moral laws. It by far the most complex and difficult of the sciences of which modern education has to take account, and therefore should not be introduced too early into the course of study for the degree of bachelor of arts; but when it is introduced, enough of it should be offered to the student to enable him to get more than a smattering.

When we consider how formidable are the industrial, social, and political problems with which the next generations must grapple; when we observe how inequalities of condition increase, notwithstanding the general accept-

ance of theories of equality; how population irresistibly tends to huge agglomerations in spite of demonstrations that such agglomerations are physically and morally unhealthy; how the universal thirst for the enjoyments of life grows hotter and hotter and is not assuaged; how the relations of government to society become constantly more and more complicated, while the governing capacity of men does not seem to increase proportionally; and how free institutions commit to masses of men the determination of public policy in regard to economic problems of immense difficulty, such as the problems concerning tariffs, banking, currency, the domestic carrying trade, foreign commerce, and the incidence of taxes,—we can hardly fail to appreciate the importance of offering to large numbers of American students ample facilities for learning all that is known of economic science.

How does the ordinary provision made in our colleges for the study of political economy meet this need of students and of the community? That I may not understate this provision, I will describe the provisions made at Columbia College, an institution which is said to be the richest of our colleges, and at Brown University, one of the most substantial of the New England colleges. At Columbia, Juniors must attend two exercises a week in political economy for half a year, and Seniors may elect that subject for two hours a week throughout the year. At Brown, Juniors may elect political economy

two hours a week for half a year, and Seniors have a like privilege. The provision of instruction in Greek at Brown is five and a half times as much as the provision in political economy, and seven-elevenths of the Greek is required of all students, besides the Greek which was required at school; but none of the political economy is required. Columbia College makes a further provision of instruction in history, law, and political science for students who are able to devote either one or two years to these subjects after taking the degree of bachelor of arts, or who are willing to procure one year's instruction in these subjects by accepting the degree of bachelor of philosophy instead of the degree of bachelor of arts—a very high price to pay for this one year's privilege. If this is the state of things in two leading Eastern colleges with regard to instruction in political economy, what should we find to be the average provision in American colleges? We should find it poor in quality and insignificant in amount. In view of this comparative neglect of a subject all-important to our own generation and those which are to follow, one is tempted to join in the impatient cry, Are our young men being educated for the work of the twentieth century or of the seventeenth? There can be no pretence that political economy is an easy subject, or that it affords no mental discipline. Indeed, it requires such exactness of statement, such accurate weighing of premises, and such closeness of reasoning, that many young men of twenty, who have been disciplined by the study of Greek, Latin, and mathematics for six or eight years, find that it tasks their utmost powers. Neither can it be justly called a material or utilitarian subject; for it is full of grave moral problems, and deals with many questions of public honour and duty.

The last subject for which I claim

admission to the magic circle of the liberal arts is natural science. All the subjects which the sixteenth century decided were liberal, and all the subjects which I have heretofore discussed, are studied in books; but natural science is to be studied not in books but in things. The student of languages, letters, philosophy, mathematics, history, or political economy, reads books, or listens to the words of his teacher. The student of natural science scrutinizes, touches, weighs, measures, analyzes, dissects, and watches things. By these exercises his powers of observation and judgment are trained, and he acquires the precious habit of observing the appearances, transformations, and processes of nature. Like the hunter and the artist, he has open eyes and an educated judgment in seeing. He is at home in some large tract of nature's domain. Finally, he acquires the scientific method of study in the field, where that method was originally perfected. In our day, the spirit in which a true scholar will study Indian arrowheads, cuneiform inscriptions, or reptile tracks in sandstone, is one and the same, although these objects belong respectively to three separate sciences—archæology, philology, and palæontology. But what is this spirit? It is the patient, cautious, sincere, self-directing spirit of natural science. One of the best of living classical scholars, Professor Jebb of Glasgow, states this fact in the following forcible words: "The diffusion of that which is specially named science has at the same time spread abroad the only spirit in which any kind of knowledge can be prosecuted to a result of lasting intellectual value." Again, the arts built upon chemistry, physics, botany, zoölogy, and geology are chief factors in the civilization of our time, and are growing in material and moral influence at a marvellous rate. Since the beginning of this century, they

have wrought wonderful changes in the physical relation of man to the earth which he inhabits, in national demarcations, in industrial organization, in governmental functions, and in the modes of domestic life; and they will certainly do as much for the twentieth century as they have done for ours. They are not simply mechanical or material forces; they are also moral forces of great intensity. I maintain that the young science which has already given to all sciences a new and better spirit and method, and to civilization new powers and resources of infinite range, deserves to be admitted with all possible honours to the circle of the liberal arts; and that a study fitted to train noble faculties, which are not trained by the studies now chiefly pursued in youth, ought to be admitted on terms of perfect equality to the academic curriculum.

The wise men of the fifteenth century took the best intellectual and moral materials existing in their day—namely, the classical literatures, metaphysics, mathematics, and systematic theology—and made of them the substance of the education which they called liberal. When we take the best intellectual and moral materials of their day and of ours to make up the list of subjects worthy to rank as liberal, and to be studied for discipline, ought we to omit that natural science which in its outcome supplies some of the most important forces of modern civilization? We do omit it. I do not know a single preparatory school in this country in which natural science has an adequate place, or any approach to an adequate place, although some beginnings have lately been made. There is very little profit in studying natural science in a book, as if it were grammar or history; for nothing of the peculiar discipline which the proper study of science supplies can be obtained in that way, although some

information on scientific subjects may be so acquired. In most colleges a little scientific information is offered to the student through lectures and the use of manuals, but no scientific training. The science is rarely introduced as early as the Sophomore year; generally it begins only with the Junior year, by which time the mind of the student has become so set in the habits which the study of languages and mathematics engenders, that he finds great difficulty in grasping the scientific method. It seems to him absurd to perform experiments or make dissections. Can he not read in a book, or see in a picture, what the results will be? The only way to prevent this disproportionate development of the young mind on the side of linguistic and abstract reasoning is to introduce into school courses of study a fair amount of training in sciences of observation. Over against four languages, the elements of mathematics, and the elements of history, there must be set some accurate study of things. Were other argument needed, I should find it in the great addition to the enjoyment of life which results from an early acquaintance and constant intimacy with the wonders and beauties of external nature. For boy and man this intimacy is a source of ever fresh delight.

To the list of studies which the sixteenth century called liberal, I would therefore add, as studies of equal rank, English, French, German, history, political economy, and natural science, not one of which can be said to have existed in mature form when the definition of liberal education, which is still in force, was laid down. In a large university many other languages and sciences will be objects of study; I confine myself here to those studies which, in my judgment, are most desirable in an ordinary college. We are now in position to consider how the necessity

for allowing choice among studies has arisen.

The second and third of the three principal propositions which I wish to demonstrate—namely, that earlier choice should be allowed among coordinate studies, and that the existing order of studies needs to be modified—may be treated much more briefly than the first proposition, although in them lies the practical application of the whole discussion. When the men of the sixteenth century had taken all the sciences known to their generation to make up their curriculum of liberal study, the sum was not so large as to make it impossible for a student to cover the whole ground effectually. But if the list of liberal arts is extended, as I have urged, it is manifest that no man can cover the whole ground and get a thorough knowledge of any subject. Hence the necessity of allowing the student to choose among many coordinate studies the few to which he will devote himself. In a vain endeavour to introduce at least some notions about the new sciences into the curriculum of the year 1600, the managers of American colleges have made it impossible for the student to get a thorough knowledge of any subject whatever. The student has a better chance to learn Greek and Latin than anything else; but he does not get instruction enough in these languages to enable him to master them. In no other subject can he possibly get beyond the elements, if he keep within the official schedules of studies. Consider what sort of an idea of metaphysics can be obtained from a single text-book of moderate size, into which the whole vast subject has been filtered through one preoccupied mind; or of physics from a short course of lectures and a little manual of three or four hundred pages prepared by a teacher who is not himself an investigator; or of

political economy from a single short treatise by an author not of the first rank. These are not imaginary sketches; they are described from the life. Such are the modes of dealing with these sciences which prevail in the great majority of American colleges. I need not dwell upon this great evil, which is doing untold injury every year. The remedies are plain. First, let the new studies be put in every respect on a level with the old; and then let such a choice among coordinate studies be given as to secure to the student a chance to be thorough in something. To be effective, option must be permitted earlier than it is now. This proposition—that earlier options are desirable—cannot be discussed without simultaneously considering the order of studies at school and college. Boyhood is the best time to learn new languages; so that as many as possible of the four languages, French, German, Latin, and Greek, ought to be begun at school. But if all boys who are to receive a liberal education are required to learn to read all four languages before they go to college, those boys who are not quick at languages will have very little time for other studies. English, the elements of mathematics, the elements of some natural science properly taught, and the history of England and the United States being assumed as fundamentals, it is evident that some choice among the four remaining languages must be allowed, in order not to unduly restrict the number of boys who go to college. With very good instruction, many boys could doubtless learn to read all four languages tolerably well before they were eighteen years old without sacrificing more essential things; but there are boys of excellent capacity in other subjects who could not accomplish this linguistic task; and in many States of the Union it is quite impossible to get

very good instruction in all these languages. Therefore I believe that an option should be allowed among these four languages at college admission examinations, any three being accepted, and the choice being determined in each case by the wishes of parents, the advice of teachers, the destination of the candidate if settled, the better quality of accessible instruction in one language than in another, or the convenience of the school which the candidate attends. Whichever language the candidate did not offer at admission he should have opportunity to begin and pursue at college.

As to the best order in which to take up these four languages, I notice that most persons who have thought of the matter hold some theory about it with more or less confidence, but that the English-speaking peoples have little or no experience upon the subject. One would naturally suppose that easiest first, hardest last, would be a good rule; but such is not the present practice in this country. On the contrary, Latin is often begun before French; and it is common to begin Greek at fourteen and German at twenty. In education, as in other things, I am a firm believer in the principle of expending the least force which will accomplish the object in view. If a language is to be learned, I would teach it in the easiest known method, and at the age which it can be easiest learned. But there is another theory which is often acted upon, though seldom explicitly stated—the theory that, for the sake of discipline, hardness that is avoidable should be deliberately imposed upon boys; as, for instance, by forcing a boy to study many languages, who has no gifts that way, and can never attain to any mastery of them. To my mind the only justification of any kind of discipline, training, or drill is the attainment of the appropriate end of that discipline. It is a waste for society,

and an outrage upon the individual, to make a boy spend the years when he is most teachable in a discipline, the end of which he can never reach, when he might have spent them in a different discipline, which would have been rewarded by achievement. Herein lies the fundamental reason for options among school as well as college students, all of which are liberal. A mental discipline which takes no account of differences of capacity and taste is not well directed. It follows that there must be variety in education instead of uniform prescription. To ignorant or thoughtless people it seems that the wisdom and experience of the world ought to have produced by this time a uniform course of instruction good for all boys, and made up of studies permanently pre-eminent; but there are two strong reasons for believing that this convenient result is unattainable: in the first place the uniform boy is lacking; and in the second place, it is altogether probable that the educational value of any established study, far from being permanently fixed, is constantly changing as new knowledge accumulates and new sciences come into being. Doubtless the eleventh century thought it had a permanent curriculum in "*Lingua, tropus, ratio, numerus, tonus, angulus, astra*"; doubtless the course of study which Erasmus followed was held by the teachers of that day to supply the only sufficient liberal education; and we all know that since the year 1600, or thereabouts, it has been held by the wisest and most cultivated men that Greek, Latin and mathematics are the only good disciplinary studies. Whewell, whose foible was omniscience, did not hesitate to apply to these three studies the word *permanent*. But if history proves that the staples of education have in fact changed, reason says still more clearly that they must change. It would be indeed

incredible that organized education should not take account of the progress of knowledge. We may be sure that the controlling intellectual forces of the actual world, century by century, penetrate educational processes, and that languages, literatures, philosophies, or sciences which show themselves fruitful and powerful must win recognition as liberal arts and proper means of mental discipline.

Two objections to the views which I have been presenting occur at once to every conservative mind. I have often been met with the question: Is this traditional degree of bachelor of arts, which for three hundred years, at least, has had a tolerably clear meaning, to be deprived of all exact significance, so that it will be impossible to tell what one who holds the degree has studied? I reply that the degree will continue to testify to the main fact to which it now bears witness, namely, that the recipient has spent eight or ten years, somewhere between the ages of twelve and twenty-three, in liberal studies. I might add that the most significant and valuable degree in arts which is anywhere given—the German degree of doctor of philosophy and master of arts—does not stand for any particular studies, and does not indicate in any individual case the special studies for which it was conferred, although it does presuppose the earlier accomplishment, at a distance of several years, of the curriculum of a German gymnasium.

A second objection is expressed in the significant question: What will become of Greek and Latin if all these new subjects are put on an equality with them? Will Greek and Latin, and the culture which they represent, survive the invasion? To this question I answer, first, that it is proposed, not to substitute new subjects for the old, but only to put new subjects beside the old in a fair competition, and not to close any existing road to the

degree of bachelor of arts, but only to open new ones; secondly, that the proposed modification of the present prescription of Greek and Latin for all boys who are to go to college will rid the Greek and Latin classes of unwilling and incapable pupils, to the great advantage of the pupils who remain; and, thirdly, that the withdrawal of the artificial protection now given to the classics will cause the study of classical antiquity to rely—to the well-chosen words of Professor Jebb on the last page of his *Life of Bentley*—"no longer upon a narrow or exclusive prescription, but upon a reasonable perception of its proper place amongst the studies which belong to a liberal education." The higher the value which one sets on Greek and Latin as means of culture, the firmer must be his belief in the permanence of those studies when they cease to be artificially protected. In education as elsewhere, it is the fittest that survives. The classics, like other studies, must stand upon their own merits; for it is not the proper business of universities to force subjects of study, or particular kinds of mental discipline, upon unwilling generations; and they cannot prudently undertake that function, especially in a country where they have no support from an established church, or from an aristocratic organization of society, and where it would be so easy for the generations, if repelled, to pass the universities by.

Finally, the enlargement of the circle of liberal arts may justly be urged on the ground that the interests of the higher education and of the institutions which supply that education demand it. Liberal education is not safe and strong in a country in which the great majority of the men who belong to the intellectual professions are not liberally educated. Now, that is just the case in this country. The great majority of the men who are

engaged in the practice of law and medicine, in journalism, the public service, and the scientific professions, and in industrial leadership, are not bachelors of arts. Indeed, the only learned profession which contains to-day a large proportion of bachelors of arts is the ministry. This sorry condition of things is doubtless due in part to what may be called the pioneer condition of American society; but I think it is also due to the antiquated state of the common college curriculum, and of the course of preparatory study at school. When institutions of learning cut themselves off from the sympathy and support of large numbers of men whose lives are intellectual, by refusing to recognize as liberal arts and disciplinary studies languages, literatures, and sciences which seem to these men as important as any which the institutions cultivate, they inflict a gratuitous injury both on themselves and on the country which they should serve. Their refusal to listen to parents and teachers who ask that the avenues of approach to them may be increased in number, the new roads rising to the same grade or level as the old, would be an indication that a gulf already yawned between them and large bodies of men who by force of character, intelligence, and practical training are very influential in the modern world. For twenty years past signs have not been wanting that the American college was not keeping pace with the growth of the

country in population and wealth. I believe that a chief cause of this relative decline is the narrowness of the course of study in both school and college.

The execution of the principles which I advocated would involve considerable changes in the order of school and college studies. Thus, science-teaching should begin early in the school course; English should be studied from the beginning of school life to the end of college life; and the order in which the other languages are taken up should be for many boys essentially changed. We should in vain expect such changes to be made suddenly. They must be gradually brought about by the pressure of public opinion—by the public opinion of the educated classes taking gradual effect through established educational instrumentalities. The change will be wrought by the demands of parents upon Private Schools; by the influence of trustees and committees in charge of endowed and Public Schools upon school courses of study; by the conditions which benefactors and founders impose upon their gifts and bequests to liberal education; by the competition of industrial technological schools and by the gradual encroachment of the modern subjects upon the ancient in colleges and universities. All these influences are at work, and much ground has been gained during the last fifteen years.—*The Century*.

THE important question in education is not, how much is learned, but, rather, the permanent effect of the knowledge acquired, and the value of the habit established in the acquisition. One may learn but a tenth of what another does, and yet have it so much more select as to be ten times as valuable as the other's knowledge. In the one case it may have been learned by such a crude process as to be destructive of all culture, and in

the other in such a clear, impressive manner as to have each mental effort permanently strengthening to mind, so that what is learned leaves the intellect clearer, sharper, stronger. If teachers will keep this truth in mind, they will see the force of this maxim, "Not how much, but how well," and gauge their instruction accordingly. There is a demand for keen discrimination along the line here indicated.—*American Teacher*.

## ACADEMY ENDOWMENTS.

BY W. H. SCHUYLER.

Nations, and thrones, and reverend laws  
 have melted like a dream,  
 Yet Wykeham's works are green and fresh  
 beside the crystal stream;  
 Four hundred years and fifty their rolling  
 course have sped  
 Since the first serge-clad scholar to Wyke-  
 ham's feet was led:  
 And still his seventy faithful boys in these  
 presumptuous days  
 Learn the old truth, speak the old words,  
 tread in the ancient ways;  
 Still for their daily orisons resounds the matin  
 chime,  
 Still, linked in bands of brotherhood, St.  
 Catherine's steep they climb;  
 Still to their Sabbath worship they troop by  
 Wykeham's tomb,  
 Still in the summer twilight sing their sweet  
 song of home.

*Roundell Palmer's "Anniversary Ballad."*

"IT is the interest of every man to live as much at his ease as he can," says Adam Smith, the great founder of the modern science of political economy; and from this proposition he argues against the value of educational endowments. If the state of affairs described by him as existing at Oxford about the middle of the eighteenth century result necessarily from the influence of endowments, wise men will not contribute money, time, or labour to the establishment of educational institutions; and hence a discussion of the worth of endowments is fitting at this time, when money flows more freely than ever before into the coffers of schools and colleges.

The press, steam, and electricity have made the abuse of educational foundations much less probable in our day. These agencies immediately make known everywhere every act of public institutions, and pour upon them such a flood of light that

they find it impossible to withstand long the force of intelligent criticism. Endowed schools are, doubtless, conservative; but conservatism in education is not an evil, however annoying it may be to the advanced reformer. That endowed institutions are not beyond the reach of public sentiment is seen in the concessions Harvard and Columbia are making to the rather feeble demand that these venerable and wealthy corporations should be something for the higher education of women. He would not be a rash prophet who would predict that in twenty-five years these old seats of learning will be doing more for the sound education of our daughters than colleges that have opened their doors at the first knock. They are only waiting for a louder knock and ability to provide substantially for their guests. In the meantime, it is generally admitted that in their chosen field they stand in the front rank, although they are the most munificently endowed of all our colleges.

Passing to the special subject of inquiry at this time, before taking up the academies of our own country, a brief survey of the great secondary schools of England will help us to form correct conclusions. England, better than any other transatlantic country, represents the best elements of modern civilization, and does more for the diffusion thereof throughout the world. It is true that Germany is generally considered the favoured land of education, and that she is the Mecca of our ambitious young scholars; but England's men of science and learning are of no means rank, and for practical men of affairs, and espe-

cially for enlightened, liberal statesmen, pervaded by the Christian spirit, the greatest of national boons, she must be assigned the first place in the family of nations. Her indebtedness to her endowed schools has often been noted. They have "been the foundation upon which has been built up much of the sterling wealth of the English character. . . . They have kept alive the liberal studies which have nourished a race of divines, lawyers, physicians, statesmen, that may challenge comparison with those of any nation. They have opened the gates of higher employment to industry and talent unsupported by rank and riches. They have mitigated the inequalities of society. They have ploughed up the sub-soil of poverty to make the surface earth stronger and richer."\*

The head master of one of these schools, after expressing views much like the above, goes on to say: "Where can be found such a thorough freedom of play for all that is in a boy of good and noble, as in our Public [endowed] Schools? Where such a judicious mixture of liberty and restraint? Where is a boy thrown upon his own good principle and firmness, and yet protected from the rougher and coarser forms of temptation, as in the guarded and yet free atmosphere of a Public School? When we look at these noble and distinguished institutions of our country, can we wonder at the Duke of Wellington's watching the boys of Eton in their playing-fields and thinking that it was there Waterloo was won—that such training as there exists, and has existed for centuries, matures the heroic and manly temper of Englishmen into stern fulfilment of duty, stern defence of the injured and the weak, stern repression of the unjust aggressions of other nations. Can we wonder at the large share Montalembert gives to the public-school life of English boys

in the acknowledged superiority of England? Can there be more striking contrast than that which exists between the cramped and confined and constantly-watched training of a foreign school-boy, and the free and healthy play of life and vigour and self-reliance in an English school-boy?"

Dr. Weise, at one time chief director of Prussian secondary schools, makes some comparisons between those of Germany and England that are very favourable to the latter, as a few extracts will show :

"The result of my observation, to state it briefly, is this : In knowledge our higher schools are far in advance of the English ; but their education is more effective, because it imparts a better preparation for life.

"With us it is almost a standing maxim that the object of the gymnasium is to awaken and develop the scientific mind. An Englishman could not admit this, for he is unable to divest himself of the idea that not to know, but to do, is the object of man's life ; the vigorous independence of each individual man in his own life and calling.

"Students there do not learn nearly so much as with us ; but they learn one thing better, and that is the art of learning. They acquire a greater power of judging for themselves ; they know how to make a correct starting-point for other studies ; whereas our young men too often only know just what they have learnt, and never cease to be dependent on their school teaching.

"Were it possible to combine the German scientific method with the English power of forming the character, we should attain an ideal of education not yet realized in Christian times—only once realized, perhaps, in any time, in the best days of Greece,—but which is just the more difficult to attain now, in proportion as the spirit of Christianity is more exalted than anything which antiquity could propose to itself as the end of education."

\* Barnard's "National Education in Europe," p. 724.

The chief objection, perhaps, urged against these schools at the present time is their too exclusive devotion to the classics and mathematics; but this is a question about which competent judges are by no means unanimous, and the innovations already found in the historic curriculum show their readiness to respond to a well-grounded demand for change. The lines descriptive of Winchester, quoted at the head of this article, are true in varying degrees of all of "these most English institutions of England," as the *London Times* has called them, and suggest that no man can erect to himself a grander or more enduring monument than a well-endowed academy. Past educational history gives us no reason to hope that a school not on a solid money-foundation can have a career so useful, so glorious, and so enduring as these great schools; and even Adam Smith admits that the influence of endowments upon secondary schools has not been so unfavourable as he thinks it has been upon universities.

Our own well-endowed schools—few in number and of comparatively recent growth—cannot claim so positive and so universal an influence in shaping the American character; but a candid examination of facts, not of mere impressions, will clearly show that the men who had faith enough thus to set apart a portion of their wealth "builted better than they knew," and are worthy of imitation by those who have man's highest welfare at heart. The constituent elements of a successful school cannot be measured by "rule of thumb" and hence the great difficulty of coming to correct conclusions thereupon. Perhaps nothing strikes the popular imagination more favourably than a large attendance; and yet this may be very misleading. One school, realizing that its teachers can do only a limited amount of the best work, confines itself to two courses of study, or

it may be to one, based on experience and philosophical principles; moreover, it rigidly excludes or dismisses students not in harmony with its spirit, and unable to profit by a residence within its walls, or injurious to others. Another school increases its work twofold or threefold, without a corresponding increase in its teaching staff, advertising courses of study whose greatest merit may be their fitness to strike the imagination of the uninitiated and thus by making of itself a drag-net it secures a large attendance of constantly-changing pupils. That the first school is doing more to advance sound learning is evident. A school may also acquire much fame through the well-advertised expressions of partial graduates and friends; the value of such testimony depends upon one's ability to read between the lines.

Other things being equal, it must be admitted that the most successful school is the one that retains the largest percentage of pupils long enough to complete its curriculum; and, if these graduates enter our best colleges in large numbers and in good standing, we have the best possible assurance that they have been well trained intellectually and not imbued with a mere smattering of knowledge. The application of this test to our academies brings out facts highly favourable to the principle of endowment. The Phillips Academies and Williston Seminary, apart from their productive funds, have had no advantages beyond those of other schools, and hence may be taken as representative examples of what a well-endowed academy may do and become. If it be said that their age and situation are in their favour, or that their management chanced to fall into specially-skillful hands, New England points at once to institutions founded even before these, the subjects of most careful nursing, and once as flourishing, which are now struggling between life and death,

or have already yielded to adverse fate.

As an aid to the understanding of the work done by these three schools, the following table of averages has been compiled from the reports of the United States Bureau of Education. Six schools are included, not as representative of the average unendowed academy, but as those popularly considered the best. The Boston Latin School, generally acknowledged to be the best preparatory school maintained at the public expense, is added for comparison.

TABLE OF AVERAGES.

	No. of Students.		Graduates.		Entered College.	
	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.
Phillips Academy, Andover, Massachusetts.....	222	57	25.7	40	18	
Phillips Academy, Exeter, New Hampshire.....	186	41	22	39	31	
Williston Seminary, East Hampton, Massachusetts.	211	46	21.8	33	15.6	
Hopkins Grammar-School, New Haven, Connecticut	153	41	26.8	37	24.2	
Albany Academy, Albany, New York.....	235					2.5
St. Paul's School, Concord, New Hampshire.....	186	31	16.6	25	13.4	
Cazenovia Seminary, Cazenovia, New York.....	447	46	10.3	27	6	
Fort Edward College Institute, Fort Edward, New York.....	416	35	8.4	14	3.3	
Wyoming Seminary, Kingston, Pennsylvania.....	339	19	5.6	12	3.5	
Latin School, Boston, Massachusetts.....	342	29	8.5	26	7.6	

The statistics given by the Bureau of Education cover a period of less than

ten years. Their value for comparison would be much greater if they extended over the entire history of the schools, and would doubtless be much more favourable to the first three; for from other sources it is learned that in the case of these the figures would not be changed materially, while the favourable showing of the Hopkins Grammar-School is confined almost exclusively to the time of the present rector, appointed in 1873; and in the long history of the school there has been a constant change in the principalship, in marked contrast with the long terms of Dr. Taylor at Andover and of Drs. Abbot and Soule at Exeter.

The attendance, though not so large as that of some of the other schools, is large enough to create a proper *esprit de corps*, and could doubtless be increased if they would receive as young pupils as are found in the Albany Academy, or teach as wide a range of subjects as are taught in the Cazenovia, Fort Edward, Wyoming Seminaries. In the judgment of many of the most careful educators, two hundred students are as many as one institution can properly care for. In the number completing their courses of study and entering college they are far in advance of all except the Hopkins School and St. Paul's. As already stated, full statistics would greatly reduce the figures in the case of the former; and the history of the latter (opened in 1856) is too brief to weigh much in the decision of the question under consideration, especially as it has not yet had a change in the principalship, an ordeal which many flourishing unendowed schools have not been able to pass without great loss of vitality.

However, none of the unendowed schools in the table are proper representatives of the result of unaided competition; for they either receive aid, though it may be little, from productive funds, or are sustained by strong religious denominations noted for their

zeal in behalf of their own schools; and the fact that most, if not all, of them are very desirous of securing an adequate money foundation, instead of being content with their present condition, is a strong argument for the value thereof. It is when we look over the statistics of schools that receive no help from funds or church that the superiority of the endowed schools is most apparent. The bureau's reports for any year contain many schools that have not sent one student to college, even though they are classed as being specially devoted to this work; and the usual history, even of the best, is a frequent and discouraging change from the heights of prosperity to the depths of adversity.

In the faculties of the Phillips Academies and Williston Seminary may be found several men whose scholarship and ability would reflect credit upon any college. Contrast this with the one good man and his young and inexperienced assistants of narrow scholarship who manage so many of our schools. Not only this, but these men are given time for something beyond the mere routine of the school-room, and that this opportunity is improved is seen in the recent editing of certain text-books which bear marks of the highest and most advanced scholarship. This is a vital point. Says Dr. Arnold, "Every improvement of your own powers and knowledge tells immediately upon them [your pupils]; and, indeed, I hold that a man is only fit to teach so long as he is himself learning daily. If the mind once become stagnant, it can give no fresh draught to another mind: it is drinking out of a pond instead of from a spring." Unless the charges of a school dependent upon tuition-fees alone are so great that only the wealthy can reap its advantages, it cannot give its teachers time to learn daily. In such schools, six hours of teaching and watching in the school-room and the care of boarders

during the rest of the day leave time for little besides, except mere mechanical work,—correcting exercises, etc. That buoyancy and freshness of mind and body so powerful in reflex influences on the young, can hardly exist. The three schools under consideration are the chief feeders of the best New England colleges, which by their help have been able to insist on a more thorough preparation for entrance than colleges that depend mainly on unendowed academies and Public Schools have been able to secure. This fact, and the long list of distinguished men, preachers, lawyers, physicians, statesmen, among their graduates, put the character of the instruction and inspiring influences almost beyond question, and have led the founders of good schools elsewhere to regard these as worthy of imitation.

It is sometimes said that those who desire more than an elementary education should pay the full price for it. Those who make the statement are perhaps not aware of the actual cost of running a good school. A rigid application of their theory would have kept in obscurity the larger part of our most useful educated men and women, and would create an aristocracy founded on wealth and education. As a matter of fact, very few good schools charge as much as the instruction costs. The deficit is made up—where there is not an adequate endowment—by withholding from the teachers a fair remuneration, by keeping a boarding-house, by gifts from friends, or by the surplus from some extra department, as such drawing or music, in which the rates may exceed the cost. When a school with none of these means of assistance charges less than one hundred dollars a year for instruction, there exists a sufficient reason for suspecting its character. In no respect, therefore, is the value of well-endowed academies more apparent than in their ability to offer the best advantages to worthy youth

whose residence in village and rural districts shuts them off from the usual educational facilities. At Andover, Exeter and East Hampton the expenses of many students, aside from the cost of clothing and travel, do not much exceed two hundred dollars a year. At the last school these students do not pay tuition-charges, which are remitted "on certain conditions to needy and deserving students," and the school's catalogue says that then their expenses need not exceed one hundred and seventy-five dollars. Andover offers to its students fifty scholarships, and Exeter twenty-four, whose annual value ranges from sixty to one hundred and forty dollars; and it will be seen that it is thus possible for a boy to pass through one of these schools at an expense varying from sixty to one hundred and forty dollars a year. In addition to this, Exeter gives to its pupils more than four thousand dollars in free tuition; Andover also gives free tuition in the classical department to those whose circumstances require it. To appreciate fully the cheapness of these schools, the expenses should be compared with those of a school equal in rank, like St. Paul's, where "the terms of admission are five hundred dollars per annum." Considering the character of the school, no competent judge will say that its terms are too high; but it is evident that the poor must look elsewhere for an education.

Thayer Academy, a well-endowed school, organized in 1877 at South Braintree, Massachusetts, gives free tuition "to natives or residents of the four towns, Braintree, Quincy, Randolph, and Holbrook." At Cushing Academy, opened at Ashburnham, Massachusetts, in 1875, with a productive fund of one hundred thousand dollars, students' expenses vary from eighty to two hundred and twenty-five dollars, the average being one hundred and seventy-five dollars, per annum. The charge for tuition is only twenty

dollars, although, "counting the whole investment, it cost the institution in 1880 about one hundred and forty-five dollars to educate each student a year."

This school is especially worthy of notice, since, situated in a region unoccupied by other good schools, it promises to be of inestimable benefit to indigent boys and girls. The assistance which endowed schools, can give to worthy young people in the most critical period of their lives is alone a sufficient answer to the question, "Should an academy be endowed?" For, as a circular of Cushing Academy forcibly says, "It sounds well, this working one's own way through school and college, but practically it is a very hard thing. At the low rates for unskilled labour, or at twelve to twenty-five dollars a month, besides board, for teaching, it is barely within the limits of possibility to starve one's self through a course of study; but a little thought will show that it is a severe test to an inexperienced young man or woman. A little help in such cases would be an inestimable boon, and would preserve from premature decay many a valuable young life that might become a power in the world."

According to the report of the United States Commissioner of Education for 1880, higher institutions of learning received about four hundred and ninety thousand dollars to assist students, either directly or indirectly, while secondary schools received only twenty-one thousand dollars for the same purpose. In 1881 the Board of Education of the Presbyterian Church aided four hundred and thirty-one students, of whom only thirty-three were in academies. As these figures indicate, much more ample provision is made to assist students after entering college than before; and yet there seems to be no good reason for this, while there is much in favour of a reverse policy. At the end of his Freshman year, a young man has open to him all the ways of making money

that the one just entering the academy has, and also many more; and the wise course would seem to be to assist him judiciously to this point, and then let him shift for himself if need be. Perhaps the plan in vogue is the result of a habit acquired when colleges were but academies; moreover, there is a proper reluctance to give money, for the help of indigent students, to academies whose future is not secured by an endowment fund.

We have about fourteen secondary schools, each with a productive fund of at least one hundred thousand dollars. Several of these have been founded so recently that they afford no evidence as to results. Of all the rest, it has not been possible to obtain as definite information as is desirable; but from a most careful study of known facts, which in the case of many are abundant, the conclusion is confidently expressed, that if any one of them is not making a satisfactory return for the money invested, the cause lies either in its being under the immediate influence of a small and unpopular religious denomination, in its situation in a field previously occupied by good schools, in the restriction of its patronage to one locality, or in some impracticable conditions attached by the donor to his gift.

Money alone will not make a school: it is only a means to an end, and if it fall into the hands of an ignorant and narrow-minded board of trustees the end may not be reached till after much disappointment and mismanagement; but this may be said of any means yet devised to carry on a school. Such mistakes have been avoided, and can be again, more readily with an endowment than without it. As already intimated, the value of endowment should be determined from the work of schools having a productive fund of one hundred thousand dollars or more. A less sum will not give an academy the independent basis necessary to meet satisfactorily the demands

now laid upon it. It is not forgotten that schools with a smaller fund, and even with no endowment at all, are doing excellent work, but it is believed that impressions unfavourable to educational foundations are due largely to the experience of schools possessing a fund sufficient to excite, but not to fulfil, great expectations.

Perhaps the true relation of an endowment to a school's efficiency is set forth in the following conclusion, after an exhaustive inquiry, of an English Royal Commission, appointed in 1861:

"It is the opinion of the commissioners, that to a large and popular school, so long as it is large and popular, a permanent endowment is not of essential importance. There can be no doubt, however, that such an endowment is of great service in enabling any school to provide and maintain suitable buildings, to attract to itself, by exhibitions and other substantial rewards, its due share of clever and hard-working boys, to keep up by these means its standard of industry and attainments and run an equal race with others which possess this advantage, and to bear, without a ruinous diminution of its teaching staff, those fluctuations of prosperity to which all schools are liable."

There are special reasons why unaided competition will not produce as good result in teaching as in other callings. Its great power lies in an appeal to selfish motives, whose counterworking should be the educator's chief concern, and which, if fostered in his own nature, constantly leads him into callings where he can do better for self. The great difficulty of forming correct judgments as to the true nature of the teacher's intangible work, the ignorance and inexperience of many who pass upon this work in the higher education, and the length of time required to show the results of his work, often do the honest teacher most discouraging in-

justice, but enable the educational charlatan to reap a golden harvest. If necessary, an endowment can be so managed as not to put the teacher wholly beyond the influence of the usual motives to labour. By giving him a fixed salary, on which he might live with economy, and an additional emolument depending on his work, on the number of his pupils even, if that is the best criterion of success, as it is certainly the one most easily applied, his mind would be free from embarrassing anxiety about support, the temptation to cater to an unhealthy public sentiment would be reduced greatly, and there would exist an antidote to "the interest of every man to live as much at his ease as he can."

In conclusion, a few words may be said with reference to the conditions upon which an endowment is beneficial. In the first place, there should be a permanent fund, the interest of which could be used for the support of teachers, and nothing else. This is essential, and, contrary to the common practices, should be considered of more importance even than buildings or grounds. Teachers make the school, and the most inferior accommodation cannot prevent the school's being good if the teachers are good; moreover, a good school can secure good brick and mortar much more easily than the finest material equipment can obtain a superior teaching staff. This fund should be large enough to yield at least six thousand dollars a year; twice or thrice this amount would be more effective.

Secondly, there should be a permanent fund set apart for the support of scholarships, to be assigned by competitive examinations. Thus there would be insured the presence of a certain number of hard-working boys and girls of good ability, and much talent, that otherwise might waste in obscurity, would be brought into the service of mankind.

Thirdly, there should be a perma-

nent fund for the entire or partial support of some of the school's best graduates in college. By making the possession of a college fellowship depend upon the student's relative standing in the school, there would exist an incentive to application that would be felt throughout the entire body of students. No influence is more powerful with the young than that coming from the presence of an earnest band of fellows.

There are, of course, many other uses that an academy may make of money; but the three just named are of the first importance, and to secure money for these it should put forth its greatest efforts. When the public comes to recognize this necessity, the cause of education in general, such is the relation to it of secondary schools, will receive an impetus for untold good that can be given in no other way.

About three hundred thousand dollars are officially reported to have been given in 1880 for the endowment of secondary schools. This is, indeed, a small sum, especially when the number of schools among which it was divided is considered; but it shows that the thoughts of some benevolent men and women are turning in this direction, and is an encouragement for the friends of academies to bring before the public a definite idea of the needs of these institutions and the conditions of their success. The waste of the present method of management should be clearly set forth. The ruins of schools, once more or less successful, that have not been able to bear the fluctuations of fortune, are found in great numbers in our older States. Had the money spent thus unprofitably been devoted to the endowment of a few academies at proper distances from one another, it would have continued to bear fruit, and the greatest need of our educational system at this time would have been largely supplied. — *Lippincott's Magazine.*

## NOTES.

BY THE PUBLIC SCHOOL EDITOR.

TRANSITION, modification, reform, are the order of the day in the educational world of Ontario. That these are always truly gauged, is more than we have any right to expect, but that they are honestly purposed, none except the chronic carper will attempt to deny. Some of the more or less recent innovations have, in their results, far exceeded (not always for good) the intention of their promoters, while others have fallen miserably short of what may reasonably be supposed as the original aim.

THE day is still far distant when the merely tentative will cease to have a place in our, or in any other, educational system, but the time now is when we have a right to expect something like stability, united with a fair share of the intensely practical. Lacking these qualifications, it is difficult to see how any so-called *system*, can lay claim to the distinction.

EVERY law looking to the well-being of the schools must depend largely upon the teacher and his qualifications for its success, and, just as might be expected, in so far as this is true, it will be found that many of the best enactments have been made in compliance with opinions expressed at county and provincial conventions of teachers—opinions expressed in accordance with a thorough acquaintance on the part of the teachers with the real, not the imaginary wants of the community. On the other hand, but a moment's observation is needed to show that all the clamour for repeal, relates to statutes enacted on theoretical grounds, or in direct opposition

to the wishes of the best men and women in the profession.

IF attention be directed towards educating teachers as they should be educated (not as they are), the necessary reforms will *always* be suggested in good time through the various institutes and conventions. Theoretical legislation, like closet science, as a rule looks very well in print, and "that's the end on't." Well, hardly, for too often the evil effects of such law-making are far-reaching and difficult of correction.

BENEFICIAL as psychological studies no doubt are, there is grave reason to doubt whether their place might not very well be taken by others of at least equal importance, and of vastly more practical utility. The day is past when it was thought "the thing" to "cultivate" the mind by means of studies "hard to be understood." As Prof. Blackie, of Edinburgh, said: "If it be necessary to employ a system of mental gymnastics apart from everyday use, why not introduce the study of Chinese?"

THE smattering of psychology to be acquired during a session at the Normal School is worth little more than a row of pins, and while the time is occupied in vain attempts to assimilate the doctrines of Spencer, Bain, and Hopkins, the great ocean of English, as English, lies to a great extent unexplored.

IT is gratifying to know that Botany has been introduced as one of the studies for teachers-in-training at the Normal Schools. A little more of

this sort of thing, and a little less of some other things, are well worthy of trial as experiments. Few scientific studies are capable of being made more interesting and profitable, and there is none that can be so well taught without the employment of sesquipedalian technicalities.

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A JOINT petition from the male students of Toronto and Ottawa Normal Schools, asking for the removal or modification of the regulations restricting communication between the sexes, has been presented to the Hon. G. W. Ross. We wish the boys success, and have no doubt the Minister of Education, who has "been there" himself, will give the question his best consideration.

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A FEW days ago, the locomotive firemen of North America met in this city. Conductors and drivers have also held their meetings. All these men are of one mind on the subject of what should constitute a fair day's pay, and they succeed in getting it. So also with machinists, stonemasons, and other craftsmen. Doctors and lawyers too have formed themselves into what may be called close corporations, and, themselves name their fees. Teachers, however, are without even the semblance of a bond, and are, as a matter of course, at the mercy of every penurious school board in the Province. Is it not possible to get over this difficulty by any means?

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Now that what have hitherto been known as Teachers' Associations, will henceforth be real, live Institutes, solid results may be anticipated. Noble work has been performed in and through these county gatherings, and from a social point of view their value was very considerable, but to the older teachers more especially, the proceedings had become somewhat hum-drum. Even the younger

members were in doubt as to whether "the play was worth the candle," the candle, in this case, representing sometimes as much as two or three per cent. of their annual income. It is now within the power of Dr. McLellan to initiate a better order of things, although it is difficult to see how he will be able to visit more than half, if so many, of the counties in ten months. Time will not hang heavy on his hands, and there can be no doubt that he will accomplish all that can be accomplished by means of energy, assiduity, enthusiasm and eloquence. We shall be glad to receive condensed reports of Institutes meetings from the secretaries.

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IN the organization of Teachers' Institutes, we would suggest the appointment of a reporting committee to consist of three ready writers. The secretary is usually a comparatively over-worked, and wholly unpaid official. To record minutes and notify members of the meetings is quite enough for one to do, and if each institute keep as it should, moderately detailed reports of proceedings for future reference, then some means should be employed to effect this purpose. In a few years the archives of the institutes will prove valuable in many ways.

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THE Teachers' Institute scheme is suggestive of vast possibilities, *e.g.*, will not the occupation of the Provincial Association be, to a great extent, gone? That is to say, will there exist any longer a good reason for the discussion of modes and methods? Will not the province of this body become legislative rather than pedagogic? Will it not consist hereafter of representatives from the various institutes, and of representatives only? And will not a change in this direction be conducive to the best interests of the profession? We shall see.

## UNIVERSITY WORK.

## MATHEMATICS.

ARCHIBALD MACMURCHY, M.A., TORONTO,  
EDITOR.

EDUCATION DEPARTMENT,  
ONTARIO.

JULY EXAMINATIONS, 1884.

First Class Teachers—Grade C.

ARITHMETIC.

Examiner—J. C. Glashan.

Solutions by John Tait, C. I., Collingwood.

1. A gallon of water weighs 10 lbs.; a litre is equal to 1.761 pints, and a kilogram to 2.205 lbs. How many kilograms would a litre of water weigh?

1. Since 1 gallon, or 8 pints weighs 10 lbs., 1 pint weighs  $\frac{1}{8}$  lbs.

∴ 1 litre = 1.761 pints, or  $1.761 \times \frac{1}{8}$  lbs.

$$= \left( \frac{1.761 \times \frac{1}{8}}{2.205} \right) \text{ kilos.}$$

$$= \frac{1761}{1764} \text{ kilos.}$$

2. A tradesman marks all his goods at an advance of  $22\frac{1}{2}$  per cent. on cost. In selling he uses a yard stick an inch too short, and a pound-weight a quarter of an ounce light. In 43 per cent. of his sales, reckoned on their total value, the goods are measured with the short yardstick, in 36 per cent. they are weighed with the light pound-weight, and in the rest they are sold at the marked price independently of weight or of measure. What is the actual rate of profit on the whole of the sales?

2.  $\frac{122\frac{1}{2}}{100}$  of cost = marked value of goods.

$$\frac{122\frac{1}{2}}{100} \times \frac{43}{100} \times \frac{36}{35} = \frac{5418}{10000} = \text{fraction of cost received for first portion of goods sold.}$$

$$\frac{122\frac{1}{2}}{100} \times \frac{36}{100} \times \frac{64}{63} = \frac{4480}{10000} = \text{fraction of cost received for second portion of goods sold.}$$

$$\frac{122\frac{1}{2}}{100} \times \frac{21}{100} = \frac{2572\frac{1}{2}}{10000} = \text{fraction of cost received for last portion of goods sold.}$$

$$\frac{5418}{10000} + \frac{4480}{10000} + \frac{2572\frac{1}{2}}{10000} = \frac{12470\frac{1}{2}}{10000} = \text{total fraction of cost of goods received.}$$

$$= 24.70\frac{1}{2} \text{ per cent. Ans.}$$

3. Skilled workmen and labourers are employed on a work, a skilled workman receiving \$1.75 per day more than a labourer. The average of their daily wages is  $12\frac{1}{2}$  cents more than what it would be if skilled workmen and labourers were employed in equal numbers. If 6 men of each kind were discharged, the average of the daily wages would be raised by 5 cents. Find the number of men of each kind employed.

3. Were the workmen and labourers equal in number the average would be:—

$87\frac{1}{2}$  cents greater than wage of labourer, or  $87\frac{1}{2}$  cents less than that of workman. It is actually 100 cents greater than wage of labourer, or 75 cents less than that of workman. After each set of men is reduced by six the average is 105 cents greater than that of labourer, or 70 cents less than that of workman. This average rises or falls in proportion to number of men in each set. Then at first the ratio workmen to labourers is 100 : 75, or 4 : 3, and after the reduction as 105 : 70 or 3 : 2. Hence the numbers at first were 24 and 18. Ans.

4. The nearest approximate value in thousandths of a certain vulgar fraction is  $\frac{539}{187}$ , the numerator of the fraction is 187, what is its denominator?

4. If  $d$  = denominator,

$$\frac{187}{d} = \frac{539}{1000}$$

$$539d = 187000$$

$$49d = 17000$$

$$d = \frac{17000}{49} = 347. \text{ Ans.}$$

5. Four men start together from the same point, and run in the same direction round a ring at different uniform speeds. The first runs at the rate of 10 miles, the second at the rate of  $10\frac{3}{4}$  miles, the third at the rate of  $11\frac{1}{2}$  miles, and the fourth at the rate of  $12\frac{1}{4}$  miles, each per hour. At what part of the ring will they be first all together again after starting?

5. The second man gains  $\frac{3}{4}$  of a mile, the third  $1\frac{1}{2}$  mile, the fourth  $2\frac{1}{4}$  miles per hour on the first. If  $a$  be the perimeter of the ring, it will take them respectively  $\frac{4a}{3}$ ,  $\frac{8a}{9}$ ,

$\frac{4a}{9}$  hours to overtake the first after leaving the starting point. The L. C. M. of these fractions is  $\frac{8a}{3}$  hours. At the expiry of this time they will be all together. Now, the first at 10 miles an hour will go  $\frac{80a}{3}$  miles  $= 26a + \frac{2a}{3} = 26$  complete circles and  $\frac{2}{3}$  of the

circle. Hence the first time they will all be together will be at a point in the ring  $\frac{2}{3}$  of its perimeter from the starting point in the direction in which they set out.

6. The discount off a note drawn at 4 months is \$10.50; the interest on the proceeds reckoned for the same time, and at the same per cent. as the discount, would be \$10.20. Find the amount for which the note is drawn, and the percentage taken off as discount.

6. \$10.50 is the interest on the face of the note, \$10.20 is the interest on the proceeds, that is the face of the note less \$10.50.

Hence the difference 30 cents is the interest on \$10.50. If 30 cents be the interest on \$10.50, then \$10.50 is the interest (bank discount) on \$367.50, = face of note. Again, if \$367.50 gives \$10.50 as 4 months' interest, \$100 gives \$8 $\frac{1}{4}$  as 12 months' interest. *Ans.* \$367.50 amount, 8 $\frac{1}{4}$  per cent. rate.

7. Point off any number into periods of three figures each, beginning at the right. If the difference between the sum of the odd periods, numbering them from the right, and the sum of the even periods be divisible by 7 or by 13, the number itself will be divisible by 7 or by 13, as the case may be. *Prove this.*

7. Let number be  $1000000g + 100000f + 10000e + 1000d + 100c + 10b + a$ .

First period is  $100c + 10b + a$

Third period is  $g$ .

Sum =  $100c + 10b + a + g$ .

Second period  $100f + 10e + d$ .

Difference =  $100c + 10b + a + g - 100f - 10e - d$ . This divided by 7 leaves a remainder of  $2c + 3b + a + g - 2f - 3e - d$ ; but by the problem  $2c + 3b + a + g - 2f - 3e - d = 0$ . Subtract this from original number final remainder =  $999999g + 1000002f + 10003e + 1001d + 98c + 7b$ . This final remainder is exactly divisible by 7, hence the number is divisible by 7. The same mode of proof will show that the statement in the problem holds for 13.

8. The perimeter of a semi-circle is three yards, find its area in square feet.

8. We have  $\pi r = 9$  ft.

$$\therefore \frac{\pi r^2}{2} = 12\frac{3}{4} \text{ sq. ft.} = \text{area.}$$

9. Find the surface and the volume of a right circular cone, given the diameter of the base 174 inches, and the slant height 145 inches.

9. Surface =  $\pi r l$ ,  
= 39647 $\frac{1}{2}$  square feet,

Volume =  $\frac{1}{3} \pi r^2 \cdot h$ ,  
= 919,813 $\frac{3}{4}$  cubic feet.

## CLASSICS.

G. H. ROBINSON, M.A., TORONTO, EDITOR.

## UNIVERSITY OF TORONTO.

Supplemental Examinations: 1884.

## LATIN GRAMMAR.

Examiner:—George H. Robinson, M.A.

1. Decline in combination: *Ille sapiens vir, hanc lex socialis.*

2. What words of decl. 3 make acc. sing. in *-im* or *-em*?

3. Give the gender and gen. sing. (marking quantities of penults) of *virgo, furfur, nix, opus, Apollo, grex, pecus, semis, Celtiber, Idus.*

4. Give rules for the gender of the 4th decl. with principal exceptions.

5. Give example to show the force of the adjective endings *-eus, -lentus, -cundus, -osus, -ensis, -bilis, -ax, -silis.*

6. Express in Latin *10th, 20 each, 1 apiece, 100 times, a hundred fold.*

[In order to make room for other material, the Modern Language and Science Departments are again omitted.—ED.]

"IN the realm of education," says Henry Ward Beecher, "schools are often made good for anything but places where happiness is developed. No school master ought to feel less than this, that every child should twine round about him as the morning-glory round its support. Woe is me! I never was happy at school. I hated it with a sincere, genuine, unmistakable hatred, and I do not know but I do yet. The law of making men happy ought nowhere else to be more emphatically inculcated. I think there is no wrong that is so intolerably mean as that by which public men will screw down to the starvation point men and women that are trying to make their living as teachers. If there be one place where we ought to induce people to make a life-profession, it is the school. The salaries should be a premium to make it perpetual. Instead of that, we are constantly having raw material, raw material."

7. Distinguish, with examples, between *uter, uterque; uterque, quisque; quisvis, quisquam; quisquis, quicumque; quid? quod.*

8. Write down the third sign. pf. subj. of *facio, jacio, fero*; the 2nd sign. pres. imperat. of *duco, jaceo, dico*, and the participles of *coepi, odi, memini.*

9. Comment on the formation of *diu, profecto, ni...rum, hodie, magnopere, videlicet, admodum.*

10. What is the case-construction of *similis, noceo, consulo, celo, sub, misereor, piget, invideo, moderor, impleo.*

11. Translate, giving the syntax of the italicized words; (a) *Decem annos natus*; (b) *Maximam partem lacte vivunt*; (c) *Quid sibi vult*; (d) *Facies rosas imitata est*; (e) *Non est is qui hoc faciat*; (f) *altero oculo captus*; (g) *ut juvenis ita prudens est.*

12. Express in oratio obliqua

*Divico ita loquitur. Si pacem populus Romanus cum Helvetiis faciet in eam partem ibunt, atque ibi erunt Helvetii ubi tu eos constitueris atque esse vuleris: sin bello persequi perseveras, reminiscitor et veteris incommodi populi Romani et pristinae virtutis Helvetiorum.*

SPELLING.—There is yet a problem to solve before we shall be able to bring out a generation of perfect spellers. Either a change in the language itself, or of the methods of teaching, must be made. Some think nothing is gained by oral spelling, others that it is the way good spellers were once turned out. One thing is sure after we leave the school—oral spelling never comes into use; we use the pen or its equivalent, the setting of type. I believe there is no one thing that will so help in spelling as the study of word-analysis; then, too, all exercises should be written, not on a slate or on waste paper, but in a book that may be preserved, and when an exercise is examined, carry all misspelled words to a place prepared for them and there write them correctly, and make them a special study. Should this form of exercise be used in all classes above the primary, better spelling would be the result.—P. M. Barber, *Rhode Island.*

## SCHOOL WORK.

DAVID BOYLE, TORONTO, EDITOR

## READING IN THE PRIMARY SCHOOLS.

*(Continued from page 357.)*

(b) PRELIMINARY PRACTICE IN PHONICS.—The phonic analysis of *spoken* words may be made a very useful preliminary exercise. The purpose here is to bring distinctly to the child's consciousness the separate sounds of which the spoken word consists, and to give him such practice as will enable him to utter all the elementary sounds of the language purely and easily. But no attempt should yet be made to associate these elementary sounds with the letters that stand for them. That comes at a later stage. The child should first become accustomed to *hear* the separate sounds and to *utter* them; and the exercises for this purpose may begin the first day, and be carried on, side by side, with the conversational exercises described above.

1. When a few exercises in the repetition of sentences have been given, the teacher may, without changing her tone or voice, pronounce slowly (spell by sound) one of the words in a given sentence.

For instance, the teacher, pointing at the clock, says, "There is a c-l-o-c-k." The pupils will repeat the sentence, as before, without hesitation. This exercise should be given many times.

2. The teacher says, "You may touch what I name: N-o-s-e, m-o-u-th, f-a-c-e, d-e-s-k," and the pupils will perform the acts without hesitation *if the teacher does not change her tone.*

3. Pronounce single words slowly, and ask pupils to tell what you say.

4. Pronounce whole sentences slowly, and ask the pupils to repeat them in the ordinary way.

Direct pupils to "s-t-a-n-d u-p; s-i-t d-o-w-n," etc.

5. Pronounce single words slowly and let pupils imitate. [One sound may be given at a time, the pupils repeating,—as "m"—"m," "ou"—"ou," "th"—"th."] It is not well to let pupils pronounce a word slowly and immediately pronounce it in the ordinary way, as in a spelling exercise, because they should have the feeling that when they have once uttered the sounds they have pronounced the word.

6. Pronounce words in the ordinary way, and ask the pupils to pronounce the same slowly.

7. Let the pupils pronounce slowly any words that they may think of.

8. Articulate each sound given in the chart separately, and ask the pupils to imitate you. Each sound may be repeated once, twice, or three times, both slowly and in quick succession, the pupils imitating.

In this exercise the sounds may be given in the order indicated in the chart, but *this chart should not be written on the board yet*,—not until it is needed for the purpose of associating the sounds with the letters in teaching reading.

9. Pupils who have defects in articulation should have special drill. To assist them in uttering the sounds correctly the right position of the vocal organs should be shown.

10. Words mispronounced should be corrected, by imitating the teacher, and by repetition, until the correct habit is formed.

The preliminary exercises, both in conversation and phonics, should be carefully graded, beginning with those which are very simple. There should be frequent reviews; and the exercises should be short,—five minutes at first, and never at any time more than ten minutes.

## FIRST STEPS IN READING.

*The List of Words.*—For the convenience of teachers a list has been prepared, consisting of all the words found in the first forty pages of the Franklin (new) Primer, in the whole of Monroe's Chart, and in the first forty pages of Supplementary Reading—First Book.

It is believed that from one hundred to one hundred and fifty of these words may profitably be taught in script, on the blackboard, before the change is made from script to print; still, teachers with large classes may find it a relief to introduce print earlier. This may be done, provided the beginning be made with script, and script be used daily to some extent through the course.

About two-fifths of these words are purely phonetic; that is, they are written with letters, each one of which, *so far as these words are concerned*, stands for one and but one sound.

In selecting words to be taught, the teachers will find it easiest to begin with

phonetic words. Still, it will be necessary very early to teach certain constantly used words which are not phonetic,—such as *here, there, where, is, are, see, was, were, has, have, been, said*, etc. In selecting phonetic words it is important not to confine the choice to words of the same vowel; it is better to have a variety of vowel sounds in the early lessons, as, for example, *ox, fox, man, pan, big*.

It is of the utmost importance that the words taught be thoroughly learned. There is a strong temptation to increase the list of words taught at the expense of thoroughness; but it should be resisted.

*Helps to Acts of Association.*—(a) *From the side of the idea*—

(1) Objects and models of objects. (2) Suggestive actions. (3) Sketches on the black-board. (4) Pictures. (5) Conversations that vividly recall the necessary ideas.

(b) *From the side of the word.*—

(6) The whole as a word. (7) The sentence as a unit of expression. (8) The writing, which fixes the form of expression in the mind. (9) The phonic elements of the spoken word, and the phonetic nature of the written and printed word.

All these aids to association should be used by the teacher at the right time, and in due proportion. If one aid is used in excess, or to the exclusion of another, the effectiveness of the teaching will, to that extent, be diminished.

The teacher should have a collection of objects or models of objects. The collection, when not in use, should be kept out of the sight of the children; and only the objects needed for the day's lesson should be brought out at lesson-time.

*Objects Suggested.*—A fan, cap, hat, mat, rat, bag, flag, cat, hen, egg, nest, bell, pin, fish, dish, pig, rabbit, ship, doll, dog, top, ox, fox, box, cup, tub, mug, jug, nut.

Sketches on the black-board, and pictures, may be used in the same manner as objects.

*First Lesson.*—When the exercises in talking have overcome timidity, and prepared the little ones for reading, the first step may be taken. In a short lesson, during a talk about an object, a fan, for instance, it may be held up, and at the same time "a fan" may be written upon the black-board.

Put the fan down and say, "Who can bring me—?" (pointing to the word). Repeat the writing and the question several times.

*Second Lesson.*—Show the same object and write the same word as in the first lesson. Show a new object and write its name. Write both words and say, "Please bring me—," pointing to one word; then repeat the request, pointing to the other word.

*Third Lesson.*—Write the two words, and ask a pupil to bring both objects. Request a pupil to take the objects—one in each hand—and to hold up the object whose name the teacher writes rapidly on the black-board.

*Fourth Lesson.*—Write the two words, and direct pupils to repeat the words as the teacher writes.

The teacher says, "Where is the fan?"

Pupil.—"The fan is in the box."

Teacher.—"Find the word fan."

Introduce one new word, as before.

*Fifth Lesson.*—Write the words that have already been presented; show the objects, one by one, and direct pupils to point out the words. Then point to the words, and ask pupils to show the objects. Write the words and direct pupils to pronounce them. Introduce a new word.

*The Sentence.*—After ten or fifteen words have been learned, and a keen interest awakened in learning new words, the sentence may be introduced.

Let each pupil take in his hand an object already used in teaching words, and, holding it up, say, "This is a fan." "This is a man." "This is an ox." "This is a fox."

The teacher writing on the black-board, says, "See the chalk say, 'This is a fan.'" She adds, "What did the chalk say?" The pupil, holding up the fan, says, "This is a fan." Erase fan and write in its place successively man, ox, fox, and all the other words that the pupil has learned. While he says or reads each sentence he should hold in his hand the object referred to, suiting the action to the words.

Change the word "this" to "that," place the objects at a little distance from the pupils, and ask them to point as they read. "That is a cap." "That is a fan." "That is a trap." "That is a mat." "That is a hat," etc.

Change "that" to "here," and write, "Here is a fan," etc.

Use "there," for "here" changing the places of the objects, and write as before.

Change "a" to "the," and review all previous sentences. Combine sentences, as:—

"This is an ox, and that is a fox."

"Here is a hat, and there is a mat."

Teach new words, and insert them in all the previous forms of sentences.

Teach black from objects, and then review, writing:—

"This is a black ox." | "The ox is black."  
"Here is a black hat." | "The hat is black."

Change singulars to plurals and review, as:—

"The caps are black."

"The hats are black," etc.

Place objects in different positions and write :—

- "The hat is on the table."
- "The dog is on the mat."
- "The fan is in my hand," etc.

Teach words expressing qualities of objects, and then review.

RULES TO BE OBSERVED IN TEACHING FIRST STEPS.

1. Carefully introduce each new word, that is, the name of an object, action, quality of an object, or modifier of an action, by first presenting the object, sketch, or picture of the object, or by bringing the idea of it to the child's mind through conversation or questioning.

2. Words that do not recall ideas, except in their relations, should always be taught in phrases or sentences.

3. Make every thought and its expression real to the child, by suiting the action to the word.

4. Never allow a child to use an unnatural tone in reading.

5. Let the child get the thought by means of the written words, and not by hearing the sentence read.

6. The emphasis, inflections, and pauses should spring from the thought in the child's mind, and not be imitations of the teacher's voice.

7. Slow monotonous pronouncing, and quick, explosive utterances, should both be avoided.

8. Never allow carelessness or guessing.

9. Keep up, in your pupils, a keen interest for words :—

(1) By teaching words very slowly at first.

(2) By putting the words taught into many different sentences.

(3) By writing short sentences, and by making very slight changes in them,—generally of a single word—so that the pupils will be successful every time they try to read a sentence.

(4) By patience in waiting until the pupil grasps the thought. Be especially patient with dull children.

(5) Above all, by having a bright picture behind each word or sentence. That is, teach so that words used either singly or in sentences will awaken and recall pictures in the mind.

ILLUSTRATIONS.—To illustrate the manner in which a few words may be used in different forms of sentences, suppose that the words *fan, man, hat, mat, rat, bag, flag, cap, and trap* have been taught by means of objects or pictures; then we may have :—

- This is a fan.                      This is a man.
- This is a hat.                      This is a mat.

- This is a rat.                      This is a bag.
- This is a flag.                      This is a cap.
- This is a trap.

New word "the" :—

- This is the fan.                      This is the man.
- This is the hat.                      This is the mat.
- This is the rat.                      This is the bag.
- This is the flag.                      This is the cap.
- This is the trap.

New word "that" :—

- That is a fan.                      That is a man.
- That is a hat.                      That is a mat.
- That is a rat.                      That is a bag.
- That is a flag.                      That is a cap.
- That is a trap.
- That is the fan.                      That is the man.
- That is the hat.                      That is the mat.
- That is the rat.                      That is the bag.
- That is the flag.                      That is the cap.
- That is the trap.

Change "that" to "here" (eighteen sentences); and change "here" to "there" (eighteen sentences).

New word "and" :—

- This is a cap, and that is a hat.
- This is a rat, and that is a trap.
- This is a man, and that is a fan.
- This is a bag, and that is a flag.
- This is a man, and that is a mat.

Change "this—that" to "here—there," and then change "here" and "there," "this" and "that" to "where" (twenty-eight sentences).

Answer the preceding questions, by writing "The fan is there," etc. (twenty-eight sentences).

Thus, in teaching seventeen words, one hundred and thirty-three sentences may be written. Of course the teacher will not weary the children by trying to teach all of them.

Forms of sentences showing the general order of development, and how single words may be changed in making new sentences :—

- This is a fan.                      What is that?
- That is a fan.                      Here is a cap.
- This is my fan.                      There is the cap.
- Where is the cap?                      That is my cap.
- Where is my cap?                      There is my cap.
- Where is my hat?                      Mary has a doll.
- See the doll!                      Oh, see my doll!
- Oh, John, see my doll!                      I see a doll.
- We see a doll.                      Do you see the doll?
- Do you see my doll?                      I have a hat.
- There is an egg.                      John has a hat.
- That is a nest.                      My hat is there.
- There is an egg, and that is a nest.
- The egg is here.                      The nest is there,
- The egg is here, and the nest is there.
- I see the birds.                      I see the eggs.

Placing objects:—

The fan is in the box. The rat is in the box. The cat is on the mat. The dog is on the mat. The fish is in the dish. The fans are in the box. The cats are on the mat.

(Questions and answers [show two boxes]:—

Which box will you have?  
I will have the red box.  
Where is the black box?  
The black box is on the table.

As soon as possible make little stories by connecting sentences, as:—

This is my fan. I can see the fan.  
My fan is in a box. I can see my box.  
The box is on the mat.

11. Teach words *slowly* and *surely*; re-view often; know, at every step, how many and what words have been really learned.

A few words, well taught, is a far better result than one hundred words poorly taught.

PHONICS.

There should be frequent drills on the elementary sounds in all the primary and grammar classes, varying in character according to the needs of the pupils. The Chart of Sounds here given for reference is nearly identical with the lists given in Monroe's "Physical and Vocal Training," an authorized book of reference. The chart, without the illustrative words, should be placed on the blackboard in script at first, and later, when the children begin to read print, in both script and print.

CHART OF SOUNDS.

VOWELS.

Long Vowels.	Short Vowels.	Diphthongs.
e	i	u=i+o
a	e	use
a	a	ill
a	i	ell
u	e	at
u	a	ask
o	u	up
o	o	on
o	o	wholly
o	u	put
o	oo	foot
o		

CONSONANTS.

Aspirates.	Sub-Vocals.	Liquids.	Nasal Liquids.
p	bat, cab.		
ph	way, _		
wh	why, _		
f	fill, if.		
th	thin, path.		
s	sell, less.		
z	rose, nose.		
t	tie, light.		
ch	chase, peach.		
sh	shed, flesh.		
h	he, _		
k	keep, week.		
	b		
	w		
	v		
	th		
	r		
	d		
	j		
	zh		
	y		
	k		

For the first few weeks the pupil should utter the sounds only after the teacher. Let her point to the script character, while the class repeat the sound after her with distinct and natural enunciation.

When the association between the characters and the sounds is secured let the children utter the sounds alone, and the teacher attend carefully to the distinctness with which they are given. When any child is observed giving them indistinctly or incorrectly, he should be specially drilled, and shown the proper position of the vocal organs necessary for the correct utterance of the sound.

When the sounds are well given by the children alone, let the teacher point to the elements of simple words, as to *m—a—n*. Let the children utter them several times, with shorter and shorter intervals between the sounds, till they recognize that they are uttering a word. This should now become a frequent exercise, and may include all the regularly formed words with which the children are familiar.

Sometimes the teacher may call upon individual members of her class to point out words from the chart in the same way, sounding the letters as they do so.

Alternating with the foregoing exercises on the chart may be introduced others, by changing single letters in words so as to make new words. For example, write *can*

upon the board. Erase *c* and write *m*. Erase *a* and write *r*. Erase *n* and write *t*, etc. Let the teacher treat all the regularly formed words which the class learn in the same way.

When children have firmly associated the elementary sounds with the letters that stand for them, they may begin to make out new words by slow pronunciation. Strictly phonetic new words will be made out very easily. For example, knowing *pin, tin, spin*, etc., a child will at once pronounce new words like *tin, sin, win*, etc.

The first departure from the strictly phonetic form is found in large classes of monosyllables in which the vowels have the long, or *name*, sounds.

There is usually some mark in the word itself which indicates the fact that the vowel is long. For example:—

(1) That final *e* silent is such a mark may be taught by writing in parallel columns, and letting the children pronounce as the writing goes on, such words as the following:—

can	cane	hop	hope
cap	cape	not	note
hat	hate	rod	rode
mat	mate	rob	robe
pin	pine	tub	tube
tin	tine	plum	plume
spin	spine	us	use
shin	shine	rag	rage
hid	hide	hug	huge

Exceptions in familiar use, as *have, love, some, come*, etc., should be taught as exceptions.

(2) That *i* following *a* may be regarded as an indication that *a* has the long sound, is shown by such words as the following:—

am	aim	lad	laid
bat	bait	ran	rain
clam	claim	pan	pain
fan	fain	pant	paint
man	main	plan	plain
mad	maid	pad	paid

(3) That *a* following *e* may be regarded as a mark indicating that the *o* is long is shown by such words as the following:—

blot	bloat	got	goat
clock	cloak	or	oar
cot	coat	rod	road
cost	coast	sop	soap

(4) That *a* following *e* is usually an indication that *e* is long is shown by such words as the following:—

Ben	bean	met	meat
bed	bead	red	read
led	lead	men	mean
best	beast	set	seat
bet	beat		

There are somewhat numerous exceptions to this rule; the most familiar of which should be given; as *bread, spread, tread, read, breath, death, wealth*, etc.

Many more lists might here be given, but the teacher will easily make them for herself whenever she needs to use them. Whenever pupils hesitate in the pronunciation of a word where analogy would help them, a list of analogous words will be found very useful.

Exercises on words in the lists printed above and others like them should be gradually introduced as a part of the phonic drill. By adding or erasing a final *e*, by inserting or erasing the *i* after *a*, or *a* after *e* or *o*, or by doubling the *e* or the *o*, the teacher may by degrees bring her class to an unconscious recognition of the marks which the language itself affords as a guide to pronunciation and spelling.

In the exceptional cases, where children cannot be led to the pronunciation of new words by the analogies of the language, they may be helped by the use of diacritical marks.

The premature and too frequent use of diacritical marks may lead to rapid word-calling, and away from the expression of thought, and should therefore be avoided.

The dependence upon analogy gives valuable training in language, and should be early and constantly encouraged.

In the second and third years of the Primary Course the class should be exercised, not only in sounding all new words, and in variations upon them, as recommended above, but should be frequently drilled in exercises for distinct enunciation of every-day words, such as are prefixed to their reading lessons. The teacher should also make note of all words indistinctly or incorrectly uttered, and bring them up repeatedly for class drill.

SUGGESTIONS AS TO CHANGING FROM SCRIPT TO PRINT.

1. Write some interesting lesson on the board, using familiar words, and let the pupils read it. After the session print the same lesson in the same place. The next morning call upon the class to read the lesson, without, in any way, indicating the change. Repeat this process several times.

2. Print on the black-board a few very familiar single words, and then print the same in sentences.

3. Begin with Monroe's chart. First ask the pupils to find the words you may name, and then ask them to read the sentences.

It is recommended that Monroe's chart be read first; then the first thirty-nine pages of the Franklin (new) Primer; the whole of Supplementary Reading—Book First; then the Franklin Primer, from page forty-one.

After these use the First Readers of the circulating supplementary reading books.

Pupils should not begin the Second Readers until they have full and ready command of the First Reader vocabulary.

Two kinds of reading exercises, at least, should be given to the pupils: (1) Exercises in which every new word is carefully taught upon the black-board before the lesson in the book is read. (2) Tests in which pupils try to read new selections without preparation. These tests should be frequently given—once a week at least.

The same general rules that are given for black-board work should be observed in teaching reading in books:—

(1) Do not let the child read a sentence aloud until he knows its words and its meaning. If the sentence is long, he should be allowed to express the thought by phrases or clauses.

(2) As a rule, do not let the pupils in a class know who will be called upon to read next.

(3) Do not give the thought to the pupils orally, but let them get it for themselves. Do not require them to read the same lesson over and over again, lest they lose their interest in it.

(4) Ask the pupils to close their books and to tell, in their own words, what they have read.

In the second year, when composition has been well begun, require pupils to write one thing they remember of what they have read, then two things, three things, and, finally, let them write the whole story as they remember it.

Ask them to read, orally, the sentences, descriptions, and stories that they write.

#### ADDITIONAL SUGGESTIONS.

1. Sketch the outline of some large picture, for instance, a farm-yard. At first put in two or three objects and write sentences about them. In succeeding lessons, gradually fill in the picture, and make a connected story. A large wall picture may be used in nearly the same way.

2. A large number of sentences, plainly written on slips of paper, or card-board, may be successfully used. Give each pupil a slip. If one pupil reads a sentence correctly, give him another slip to read. For busy work, give pupils slips to copy, and let them read what they have copied. Let pupils take a number of slips and arrange them, for busy work, into a little story. Then let them read the story from the slips, or read it after copying it upon their slates. Single words, written or printed upon card-board, may be put together into sentences and read.

3. When the teacher finds, by false emphasis or wrong inflection, that the thought has not been correctly apprehended by the reader, questions may be used with good effect. Questions may be used very profitably, in lessons from a book, when a class has fallen into or been trained in a bad habit of mechanical, spiritless pronunciation. By means of questions the attention of the pupils will be turned directly upon the thought, and their answers will be given with natural tones and expression, as in talking. Gradually they may be led to utter the whole sentence with expression.

4. Reading and composition should be taught together, the one assisting the other at every step. At first, let the pupils tell one thing they have read; then two, then three, until by degrees they are able to tell the whole story. Follow the same plan until pupils are able to write with some facility.

5. Let pupils read what they write from a copy, from dictation, and in composition. If pupils are trained, as they may be, to express thought correctly and easily in writing, their compositions may be made as profitable as supplementary books in teaching reading. Let pupils read one another's compositions.

#### TESTS.

In testing the script-work the list of words taught may be rapidly written in sentences and short stories. If the pupils can readily read these, the teacher may feel confident that the words have been well taught.

In book-reading the tests should be from books that pupils have never read. Before reading a paragraph aloud a short time should be given the class to read it silently.

The proper standard of excellence is indicated by these two questions:—

1. Has the reader correctly apprehended the thought?
2. Has he used correct pronunciation, distinct articulation, and natural tones?

#### LIST OF WORDS FOR BEGINNERS IN READING.

The following list embraces the words found in the first thirty-nine pages of the (new) "Franklin Primer," in the whole of "Monroe's Chart," and in the first forty pages of "Supplementary Reading—First Book." Forms omitted are plurals in *s*; verbs in present indicative, third person singular, in *s*; and participles of regular verbs in *-d* and *ing*. Words not strictly phonetic are printed in italics. The basis of classification and arrangement is primarily the vowel sounds, and secondarily the final consonant sounds. In each section the object-words are placed before other words having the same vowel and termination.

1. (ä)—fan, man, pan, Dan, ran, can, an, —cap, lap, trap, strap, snap, nap,—hat, cat, rat, mat, bat, pat, flat, fat, that, at,—flag, bag, rag, stag,—back, sack, crack, track, jack, black, quack,—ax, wax, Max,—hand, sand, band, stand, grand, and,—plant,—lamb, Sam, swam, am,—bad, had, glad,—candle, handle,—Frank, thank,—scratch, catch,—as, has,—lamp, damp,—Tab, candy,—apple, waggon, Fanny, Abby,—carry, habit, bang, shall.
2. (ë)—sled, bed, bread, head, shed, Fred, fed, said,—hen, pen, men, ten, when, then,—pet, net, velvet, set, wet, get, let, yet,—bell, tell, sell, well, fell,—nest, rest, best,—Benny, Jenny, many,—egg, leg, beg,—step, Nep,—dress, yes,—sent, went,—neck, fence, Emma, seven, them,—crept, held, lend, vex, help, left, says.
3. (f)—pin, fin, tin, spin, begin, in,—is, his,—rabbit, pit, bit, fit, hit, sit, it,—hill, quill, Jill, Dill, still, rill, kill, will, till,—ship, Jip, tip, skip,—pig, twig, dig, big,—chick, stick, lick, pick, quick,—kid, lid, hid, did,—fish, dish, wish,—piggy, Willy, happy, silly, pretty, very,—give, live—six, fix,—swim, him,—sing, thing,—kitten, milk, chicken, crib, picture,—lift, drink, little, this, with, if.
4. (ö)—top, shop, hop, stop, pop,—dot, spot, hot, trot, tot, got, not,—dog, log, fog,—ox, box, fox,—sod, odd,—John, on,—Tom, from,—toss, cross,—doll, dolly,—pond, rock, lost, of, off,—robin, Tommy, sorry, was.
5. (ü)—gun, sun, bun, fun, run, one,—cup, pup, up,—jug, mug, dug,—nut, but, what,—crumb, hum, some, come,—bud, mud,—jump, bump, thump,—must, just.—bunny, honey, funny,—tub, rub,—duck, chuck,—gull, buzz, love, us, chubby, young, hunt, tumble, enough, hurry.
6. (ā)—slate, skate, Kate, ate,—hay, day, may, play, they, say, way, away,—pail, sail,

- make, take,—name, came,—Jane, Mary, Daisy,—mane, gave.
7. (ē)—be, tree, knee, three, he, me, she, we, the, see, Lee, flee, free,—ear, hear, year, dear, near,—sweet, beat, eat,—read, feed,—sheep, sleep, peep, keep,—please, these,—team, seem,—week, feed, leave, fifteen.
  8. (ī)—fly, sky, cry, dry, sly, try, shy, my, why, by,—slide, ride,—five, drive,—ice, knife, Fido, lion,—nine, white, like, kind.
  9. (ō)—crow, snow, tow, flow, go, no, hoe, row, know, yellow, so,—floor, four, wore,—woke, broke,—cold, old,—goes, Rose,—goat.
  10. (ū)—new, you, your.
  11. (ā)—chair, where, there, scare, care.
  12. (ä)—papa, mamma, calf, baa.
  13. (â)—paw, caw, draw, saw,—all, call, fall, small,—horn, morn, corn,—caught, warm,—or, for.
  14. (ü)—book, look,—good, would,—put, wool.
  15. (i)—to, do, who, two, through, into,—school, Lucy.
  16. (ow)—cow, bow, wow, now, how,—house, mouse,—crown, brown, down,—out, about,—our.
  17. (är)—are, arm, cart, yard, Carlo, large.
  18. (er)—brother, sister, mister, Walter, water, matter, sir, flower, her,—Robert, hurt,—bird, girl.
  19. (ä)—basket, grass, dance, after,—fast, last.
  20. (oi)—boy, toy.

NOTE.—The above list of words may be divided into three classes, viz. :—

1st. Purely phonetic words.....	205
2d. Words whose pronunciation is indicated by their form.....	216
3d. Unphonetic words.....	35
Total.....	456

## CONVENTION OF THE ONTARIO TEACHERS' ASSOCIATION.

(Continued from the September MONTHLY.)

### EVENING SESSION.

The Convention re-assembled at 8 p.m.

#### CONFLICTING IDEALS.

Col. F. W. Parker, Illinois, who was received with much applause, gave an address on "The Conflict of Two Ideals in Education." He said that throughout all history two ideals had governed human action. One ideal was that of fore-ordination—man's fore-ordaining what man should be. Whether

for good of man, or for selfish purposes, the rich and powerful had fore-ordained what a great portion of mankind should be, either by educating them or by keeping them in ignorance. The question to be solved was, "How to make the best subject." The usual way adopted was to keep the people in ignorance. Some nations had adopted a different mode, namely, to educate the people. Among these was Prussia, whose sovereigns had acted on the principle of making their subjects good soldiers and artisans. As soon

as education was introduced then began the conflict between the two ideals—one that the subject was made for the king, and should be educated accordingly; the other that a man should make the best of himself that he possibly could. After relating the history of education in Prussia, he spoke of the rise of Socialism, Communism, and Nihilism. He contended that these were not the result of thinking by the lower classes, but of foreordination and limitation by government. The other ideal was that of freedom—the development of the mind into truth. The outward battle might give liberty, but only the inward struggle gave men freedom. He proposed to deal with the question of these two ideals, so far as they concerned education. The ideal of freedom was opposed to that of limitation. When the American republic was founded there began the first absolute condition of liberty, but not of freedom. The fathers of the republic in their wisdom founded the Common School. It was then a new conception. And even at this day there was no Common School system in the world except on this continent. The schools of Germany were not free; there were free schools for the poor, but the others were "stratified," and stratified schools meant a stratified society. One great end of education was to have the rich mingle with the poor on the same benches, and fight them on the same playground. The rich man who had not done this was only half educated. Under the ideal of limitation the child was for the course of study; under the ideal of freedom the course of study was for the child. No subject should be included in the course of study which did not develop the child's mind. And in order to know what subjects to select they must study the child's mind—not only the working of the mind generally, but the individual mind of each child. The subjects which were necessary for the development of the human mind were not yet known. The works which have been written on education would not fill a good-sized bookshelf. There was no college for the training of teachers, properly speaking. Normal Schools were doing magnificent work, but they had been, to a great extent, nothing but academies. They had been obliged to receive children who were not yet ready to learn to teach. When the Americans began to educate they had the ideal of freedom, but they were obliged to take the methods of the old world, under the doctrine of limitation. Expression was made the end and aim of education, and this had led to great complexity. The lecturer went on to describe in a humorous way the manner in which sentences were hewed and hacked to pieces by means of parsing and analysis, so that the child lost all the force and beauty of the thought expressed.

Make expression the means of thought, and the teacher could not go wrong. What a sad thing it was that Shakespeare, and Bacon, and Locke knew nothing of grammar. What might they have been if they had only known how to "analyze"? The speaker also attacked the system of promotion examinations. What would they think of a merchant who promoted his clerks by percentages obtained in examinations; or of a young lady who gauged a sutor in this way:—"Amiability, 75 per cent.; energy, 74 per cent.—75 per cent. I'll take him; 74½ per cent. I can't." There should be examinations, but they should be made by the teacher, and made every hour. The speaker spoke eloquently on the true aim of education, the building up of character, and resumed his seat amid loud applause.

Mr. J. L. Hughes, seconded by Dr. Carlyle, moved a vote of thanks to the speaker, and the motion was carried on a standing vote.

Mr. H. I. Strang, after referring to a previous discussion on the respective merits of the system of a Minister of Education and Superintendent of Education, moved, That, in view of the change that has taken place since the question was brought before the Association and the general feeling throughout the country that the new Minister should have a fair trial, it was inexpedient to discuss the matter further at present, but that it was desirable that the head of the Department, whether Minister or Chief Superintendent, should have a regularly constituted Board of Advisers, representative in character, with specific duties defined by statute.

On motion of Mr. McAlister the latter portion of the motion was struck out.

Delegates were then asked what decision had been arrived at by the local Associations with regard to the proposed change. The Associations of Halton, West Bruce, Stormont, Toronto, South Wellington, and Guelph, Prince Edward, Frontenac and Essex, had, as appeared by the reports of the delegates, all decided in favour of the present system of a Minister of Education, many of them being unanimous. The South Grey Association had not given any instructions, but were almost unanimously opposed to any change. The remaining delegates, from East Bruce and West Huron, reported that their Associations were not in favour of agitating the question at present.

After some discussion, an amendment moved by Mr. McIntosh and seconded by Mr. Samuel Hughes, deferring the consideration of the question, was carried.

Mr. McMurchy introduced the subject of Bible reading in schools and after considerable discussion a committee composed of Messrs. Doan, McMurchy, and Wadsworth

was appointed to urge on the Government the views of the Association as expressed at the last Convention.

After passing the usual vote of thanks the Convention finally adjourned.

#### THE PUBLIC SCHOOL SECTION.

TUESDAY, August 12th, 1884.

The first meeting of the Public School Section, of the Provincial Teachers' Association, was held in the Public Hall, Education Department, beginning at 11.40 a.m.

The meeting was called to order by Mr. Jas. Duncan, the Chairman of the Section. About thirty teachers were present.

The minutes of the meetings held in August, 1883, were read and confirmed.

Mr. S. McAllister gave notice of a motion respecting proposed changes in the method of granting third class non-professional certificates.

The section decided that, provided time permit, Mr. McAllister be allowed to move the resolution of which he had given notice.

The section then adjourned to meet at 9 a.m. on Wednesday.

WEDNESDAY, August 13th, 1884.

The section met, in the Education Hall, at 9 a.m., Mr. Duncan in the chair, a large number of teachers being in attendance.

Mr. R. McQueen opened the business by reading a portion of Scripture and engaging in prayer.

The minutes of the last meeting were read and confirmed.

Mr. Duncan called Mr. Alexander, of Galt, to the chair, and then read a paper on "Our Profession from an Experience of Thirty-two Years." This address, though brief, was pointed and dwelt upon several matters of grave importance to the teachers and to the public as well. After eulogizing Dr. Ryerson and dwelling upon the great work that he had accomplished, Mr. Duncan dwelt upon the necessity of closely watching legislation affecting the school system, expressing at the same time great hope respecting the changes to be made at the next session of the Legislature under the present able and popular Minister of Education. Mr. Duncan expressed grave fears of the result of the tendency to an increase in the number of female teachers and a corresponding decrease in the number of male teachers. His observation taught him that the ambition of woman was not to conduct a school, but to reign in her own family. Experienced teachers changing their state for that of married life must necessarily be succeeded by less experienced teachers, and thus it was possible that great evil would be done. The tendency with

male teachers particularly was to leave the profession, and thus leave the way open to women. He confessed himself unable to suggest a remedy, except that valuable and skilful teachers should be given inducements to remain in the profession. The question of the Bible in the Public Schools was also briefly dealt with, the President expressing a preference on the whole for the present system, fearing that any of the changes proposed would lead to discord, and so lessen the efficiency of the school system. The present system he believed to be satisfactory to the profession, and he was not clear that outsiders should interfere in this matter.

Mr. R. W. Doan moved, seconded by Mr. Jno. Munro: That the hearty thanks of the section be tendered to Mr. Duncan for his interesting paper.

Mr. Jno. Campbell, head master, John Street School, Toronto, read a paper on the Superannuation Fund [see page 334]. A long discussion followed in which the following teachers engaged, Messrs. R. W. Doan, R. Wallace, D. Boyle, T. J. Murphy, A. Petrie, K. Alexander, F. C. Powell, T. O. Steele, T. J. Clarke, A. C. Graham, C. S. Chadwick, R. McQueen, W. Rannie, H. Husband, N. McKinnon.

Moved by Mr. James Bowerman, seconded by Mr. Lindsay: That in the opinion of this section, the Superannuation Fund should not be abolished, but should in the interest of the profession, be continued in some efficient form.

The discussion was resumed by Messrs. C. Lindsay and R. H. Cowley.

Mr. James Munro moved in amendment to Mr. Bowerman's resolution, seconded by P. Talbot: That in the opinion of the Section, the Superannuation Fund should remain as it is at present so far as it affects those now superannuated, or those now in the profession who wish to have the Fund continued; but for those entering the profession from this time, the Fund shall be abolished, and that the money paid in with interest be refunded to those in the profession who have paid and do not wish to continue the Fund.

The discussion was again resumed by Messrs. Jas. Duncan, Geo. Baird, sen'r., Jas. Bowerman, and T. J. Murphy. Mr. Jno. Campbell, the reader of the paper, then closed the discussion.

The Chairman then put the amendment and the motion. The amendment was lost and the motion carried.

Mr. R. Alexander moved, seconded by Mr. Jas. Bowerman: That Messrs. T. J. Murphy, T. O. Steele, R. Coates be a committee to examine the forms connected with the application of candidates to be placed on

the Superannuation Fund, and suggest any amendments they think necessary to make these forms acceptable to the profession.

The section then adjourned to meet at 9 a.m., on Thursday.

THURSDAY, August 14th, 1884.

The section met on Thursday at 9 a.m. in the Education Hall, Mr. Duncan in the Chair.

Mr. Geo. Lindsay opened the business by engaging in religious exercises.

The Secretary read a communication from Dr. Forrest asking permission to exhibit, before the Section his contrivance for word-building.

On motion of Mr. R. Alexander, seconded by Mr. Jas. Bowerman, it was resolved to allow Dr. Forrest thirty minutes to illustrate his model word-builder; the time given to commence at 11.45 a.m.

On motion of Mr. R. Alexander, seconded by Mr. F. C. Powell, it was decided that the election of officers should take place at 11.15 a.m.

Moved by Mr. Geo. Baird, sen'r., seconded by Mr. W. G. Duff: That, in the opinion of the Public School Section, the holidays in rural districts should be six weeks by Departmental Regulations, instead of being as at present optional with trustees.

Mr. T. J. Murphy presented the report of the committee on forms of application to be signed by teachers receiving aid from the Superannuation Fund. The report recommended that form No. 3 be dispensed with altogether, or, if retained, that clause No. 2 be expunged.

The report was adopted on motion of Mr. R. Alexander, seconded by Mr. R. McQueen.

Mr. F. C. Powell read a paper entitled a "Plea for Reading and Writing in Our Schools." He did not consider it necessary to assign reasons why these subjects should receive considerable attention in our schools. Their importance is so universally admitted that proper instruction in them becomes an absolute necessity. Their fundamental importance had in fact become in a measure the cause of their neglect. The Educational Department and the Central Committee assuming that they must be taught, did not consider it necessary to place them among mark-earning subjects. This course, he contended, quoting from the opinions of Public and High School Inspectors as published in the reports of the Minister of Education, and from his own experience, had led to great neglect in our schools and especially our High Schools. He showed that in many of the High Schools they were almost wholly ignored. He was pleased to see that the Department, prior to

the late examinations, had recognized the necessity of compelling teachers to pay more attention to them, by giving them a place among the subjects of examination. He expected that much good would result from the change, and hoped to see it increased by rating these subjects higher at the entrance examination. Much depended upon teachers. They should do all in their power to second the course indicated by the Department. Already the public were calling for a change, and the change must come, or education and the profession would suffer. He quoted suggestions made by Dr. McLellan on reading, in the last report of the Minister of Education, and regarded them as excellent, except that in each case writing should be coupled with reading. He was of the opinion that when the Public School course does not extend beyond entrance work, excellence in reading and writing must be chiefly acquired in the High Schools. He believed that High School masters and their assistants would accept the new situation and act accordingly. Progress at first would probably be slow, but eventually would be satisfactory. Much might be done to improve writing by sending specimens to our township and county shows. This competition could be extended by sending first-prize specimens to the Provincial Exhibition. Much of the time now spent on instrumental music could be believed be devoted with advantage to the cultivation of elocution. Readings and recitations should have a place in the social and family circle. Much improvement would result in this direction from a proper arrangement of suitable material in our school readers. Those now in use, especially the Third and Fourth books, were not suitable; the old idea of making school readers magazines of information was too prominent. Teachers were constantly told to use their judgment in selecting lessons, and he thought it would be as well if compilers would also use their judgment.

On motion of Mr. T. O. Steele, seconded by Mr. Barber, Mr. Powell was tendered the thanks of the Section.

A discussion on the points raised in Mr. Powell's paper followed, in which Messrs. J. Munro, C. B. Linton, John Campbell, W. G. Duff, James S. Deacon, J. A. Gardiner and others took part.

Moved by Mr. R. Alexander, seconded by Mr. T. O. Steele: That in the opinion of this section reading, writing, and spelling be given more marks at the High School Entrance Examination.

Moved by Mr. G. W. Duff, seconded by Mr. Geo. Baird: (1) That, in the opinion of the Public School Section, the History for the High School Entrance Examination is too extensive. (2) That it would be pre-

ferable to make Canadian History, and one period of English History to be set from time to time by the Department, the History for the Entrance Examination.

Mr. R. Alexander gave an address upon "Advancing Certificates from Grade to Grade on Experience" and in conclusion moved, seconded by Mr. George Lindsay: That in the opinion of the Public School Section, the action of the Honourable the Minister of Education, in recognizing and placing a high value on the professional success of candidates for re-examination for Third Class Certificates, is calculated to foster and promote that most essential part of a teacher's qualification, and that this recognition of the value and importance of successful work in the school room, should be extended to the higher class of certificates so as to make it possible for a teacher, through success in teaching, to raise his certificate from one grade to another in that class to which it belongs.

A discussion followed which was engaged in by Messrs. R. Alexander, John Campbell, A. Barber, S. C. Chadwick, James Munro, A. C. Graham, H. Gray and others.

Mr. A. Barber moved in amendment to Mr. Alexander's resolution, seconded by Mr. H. Gray: That in the opinion of the Public School Section, the professional and non-professional certificates of teachers should be entirely separate, that while certificates in the non-professional work should be given only upon the results of literary and scientific examinations as to all the grades, the professional should be made to depend largely on professional experience; so that a teacher might become a first-class teacher of the second grade, etc., through the entire grades.

After a short discussion, the amendment was lost, and the motion carried.

The election of officers was then proceeded with and resulted as follows:—Chairman, Mr. James Munro, Ottawa; Secretary, Mr. F. C. Powell, Kincardine; Directors, Messrs. F. Wood, Bradford; T. O. Steele, Barrie; Inspector Dearnese, London; J. S. Deacon, Ingersoll; R. Coates, Burlington; Legislative Committee, Messrs. R. W. Doan and W. J. Hendry, Toronto; and W. Rannie, Newmarket.

Moved by Mr. S. McAllister, seconded by Mr. S. C. Chadwick: That in the opinion of the Public School Section, while it may be desirable to limit the validity of Third Class Certificates to counties, it would be detrimental to the best interest of Public School education to adopt the backward step of relegating the non-professional examination to County Boards.

After a short discussion Mr. R. W. Doan

moved, seconded by Mr. A. C. Graham: That the matter of Third Class Certificates referred to in Mr. S. McAllister's resolution, be postponed. Carried.

Dr. Forrest, Head Master, Bradford High School, explained and illustrated the use of his word-builder.

Moved by Mr. T. O. Steele, seconded by Mr. C. Rannage: That the thanks of the section be tendered Dr. Forrest, of Bradford, for illustrations of the use of his word-builder.

The section then adjourned *sine die*.

#### HIGH SCHOOL SECTION.

##### TUESDAY.

The section met and constituted itself, with Mr. Strang as Chairman and Mr. Merchant as Secretary. It was resolved to meet at 9 a.m. each day.

##### WEDNESDAY.

This section met at nine o'clock. After routine business, Mr. Bryant read a paper on "A Commercial Department in High Schools and Collegiate Institutes." [See page 339.]

After discussion of the paper,

Mr. Wallace moved: That, in the opinion of this section, the importance of book-keeping, and such other subjects already on the programme as have special reference to commercial education, should be recognized in connection with the departmental examinations.

The motion passed.

Messrs. Bryant, Hunter, Forrest, Turnbull, S. Hughes, Merchant, Embree, were appointed a committee to consider the best means of carrying out the resolution.

#### MATRICULATION EXAMINATION TORONTO UNIVERSITY.

Mr. H. I. Strang, of Goderich, introduced a discussion on the above subject. He commended the new departure in the new curriculum—the paper on composition. He enquired whether the honour work in the junior should not be the same as the pass in the senior matriculation. This would relieve teachers from doing a great deal of extra work. He held that the amount of work prescribed for the junior matriculation should not be increased. He thought that one-third should be exacted on each subject and one-half on the aggregate. After remarks from several members endorsing the views of Mr. Strang, the meeting adjourned.

##### THURSDAY.

The High School section met in the library, with Mr. Strang in the chair. Principal

McHenry read a paper on High School graduation. The plan proposed was that on the completion of the full-course in a High School or Collegiate Institute pupils be regularly graduated receiving a diploma issued by the Minister of Education, and that the bestowal of this honour take place at an annual public meeting of pupils, parents, and other friends of education. He suggested two means of carrying out this scheme. First: To have a final examination, conducted under the direction of the Education Department, take place in connection with the intermediate or teachers' examination, graduation exercises to be held in July or September. second: Instead of establishing an additional departmental examination utilize the existing University Local Examination. Let the upper limit of the High School course, as now, correspond with that of Senior Matriculation, and have our High School candidates for graduation take either the Junior or the Senior Local Matriculation Examination, according to their degree of advancement in the course.

The Section passed a resolution approving of the plan of Upper School graduation, and suggesting that the local university matriculation examination could be utilized, and appointed a committee consisting of the High School representatives in the University Senate and Messrs. Bryant, McHenry and Embree, to prepare a scheme.

On motion of Mr. Miller it was resolved that the University of Toronto be requested to recognize as fully matriculated students all who at the local examinations shall obtain the standard required for matriculation and who in these subjects comply with the conditions of entering the University.

The committee appointed to consider the subject of natural science for junior matriculation recommend that a paper be set therein demanding from candidates such a knowledge as must be obtained from personal observation of Canadian plants, also a paper on physical geography, meaning thereby the scientific treatment of the upper portion of the earth's crust, the atmosphere, snow, ice, rain, hail, winds, clouds, etc.

As a result of this report the section resolved that the subject of botany and chemistry or chemical physics be placed as optional subjects on the junior matriculation curriculum.

Dr. Purslow moved, that in view of the objectionable nature of some of the papers set at the last matriculation examination of Toronto University, notably the past papers in mathematics, the High School representatives to the Senate be requested to endeavour to have none but suitable persons appointed as examiners, and to this end to secure that

one examiner shall be a professor of the subject examined on, and that another, if possible, a High School master, conversant with the capabilities of High Schools.

The Committee on Mr. Bryant's paper on Commercial Education reported in favour of recognizing the claim of pupils who did not desire preparation for professional examinations, and recommended a course of commercial education comprising the subjects mentioned by Mr. Bryant with the addition of phonography, as an optional subject.

The report was adopted.

On motion of Messrs. Seath and Turnbull, the Department was requested to select as sub-examiners High School masters and other teachers of practical experience.

The following officers were elected:—The Chairman, Dr. Purslow; Secretary, Mr. Merchant; Executive Committee, Messrs. Strang, Embree, MacMurchy, Miller, and Robert Alexander; Legislative Committee, Messrs. Bryant, Scott and Wetherell.

#### PUBLIC SCHOOL INSPECTORS' SECTION.

This section met in the Art Room, with Mr. D. A. Maxwell, of Amherstburg, in the chair. The time of the inspectors was almost exclusively taken up in discussing various amendments to the school law. As this law in all probability will receive considerable attention at the hands of the Ontario Legislature during its next session, it was considered advisable to discuss as fully as possible the changes that experience had proved necessary and to suggest certain amendments to the present Act. The following is a brief summary of the proposed changes:

Under the present law it is provided that a child shall attend thirteen weeks each term, but a resolution was carried proposing an amendment changing the number to thirteen weeks for the first half year, and nine weeks for the second half-year. Another resolution was carried in favour of an increase of the legislative grant to Public Schools, and that the school fund be apportioned each half year, a portion as a fixed grant to each school department, and the balance on the basis of the average attendance. Also that the inspector on completing the apportionment of each of the school grants shall furnish to the county or sub-treasurer a statement of the sums apportioned to the several schools—the amount for super-annuation having been deducted—and that the treasurer shall pay the said amounts to the teachers on the order of the trustees.

The section expressed its opinion that summer vacations in rural districts should be six weeks long; that the nomination and election of Public School trustees in cities

and incorporated villages should be held on the same day as the nomination and election of municipal councillors, and in the same place; that the number of trustees of rural school sections be increased by two, and that the same be five instead of three, also that each trustee hold office for five years; that it be compulsory in trust... to pay their teachers quarterly; that the expenses of all examinations, except entrance examinations, in connection with the public educational system, be provided for by fees to be paid by candidates; that it should be incumbent upon County Councils to provide and levy \$50 towards the local teachers' in-

stitute; that section 186 of the School Act should be changed so as to remove all doubt in regard to its being compulsory on County Councils to provide for the travelling and other official expenses of Public School Inspectors.

They also approved of several amendments designed to increase the value of the census of school attendants and non-attendants. The section elected the following officers:—Chairman, A. Campbell, Kin-cardine; Secretary, F. H. Mitchell; Directors, Messrs. Fotheringham, McKinnon, Clapp, and Hunter; Legislative Committee, Messrs. Maxwell, Smith and Little.

SOME OPINIONS EXPRESSED AT THE PROVINCIAL CONVENTION.

EDUCATION is not knowledge but power.

GENERAL engagements should be done away with.

TAKE a little time to develop the minds of your pupils.

THE Public Schools are the foundation of higher education.

TEACHERS should study the individual mind of each child.

READING is not only the key to literature, but also to history.

THE efficiency of the teacher should grow with his experience.

TWO ideals in education—one of limitation—one of freedom.

A GOOD teacher should have no difficulty in getting a good salary.

LEARNING to learn is one of the most valuable things learned in school.

IT should be the desire of civilized nations to educate the whole people.

NONE but practical teachers should be examiners in professional work.

A TEACHER's position should not depend on the likes and dislikes of children.

INDUSTRIAL drawing should be taught in all the classes in our Public Schools.

THE useful should supersede the ornamental, and the practical the theoretical.

LESSEN the number and increase the efficiency of the County Model Schools.

DOGMATIC statements fetter the minds of children. They prevent mental action.

TEACHERS should be paid quarterly, and their engagements to last during pleasure.

THERE is a certain similarity in minds, but men are not made like bricks in a brick-yard.

TEACH fewer names of places and more of the facts from which the places derive their importance.

THE constitution and by-laws of the Provincial Association ought to be consolidated and amended.

COUNTY Model Schools, in order to become permanent institutions must be made more efficient.

IT is not what the pupil learns in school that makes the course valuable to him, it is what it inspires.

THE Legislative Grant to Public Schools last year was a little over fifty cents per capita of school population.

READING is not talking—Reading is not pronunciation. Reading is thinking by means of written words.

THE object of the Public School is not to teach many things but to give power and desire to learn many things.

GIVE your pupils discipline in doing a greater amount of work, if you like, but let it be work that is of practical value.

OUR advanced reading books should contain, at least, one complete English Classic, instead of scraps without beginning or end.

IT is not necessarily what pupils learn, but how they learn that determines the value of any department of knowledge as an educative force.

THE Legislative and Municipal Grants to High Schools should not be decreased, but those to Public Schools should be largely increased.

IT is the duty of the State and those who control our educational system to attend more particularly to the education of pupils in the first four classes of our Public Schools.

THIRD class certificates should not be permanent. Either keep abreast of the times or leave the profession, appears to be the sentiment of our Provincial Association.

THE province of the educator is to study the laws of mental development, but the duty of the legislator is to consider the various interests of the community for whose benefit those principles are to be applied.

SOME things that teachers can do for their pupils. (1) Cultivate a desire for more knowledge; (2) Train the mental faculties; (3) Lead them into the avenues of common knowledge, and show them some of the by-ways that open up on all sides; (4) Cultivate a taste for pure literature and correct reading; (5) Polish up their manners a little, and give them some ideas in relation to their duties as citizens.

## CONTEMPORARY LITERATURE.

REPORT OF THE MINISTER OF EDUCATION FOR THE YEAR 1883, WITH THE STATISTICS OF 1882. Printed by order of the Legislative Assembly, by C. Blackett Robinson, Toronto.

*(Continued from page 366.)*

WE find by reference to our review of the Report for 1878 in EDUCATIONAL MONTHLY for February, 1880, that the average attendance for that year for the whole Province was 46 per cent. Now it is 45. We have, therefore, gone back one per cent., and now we have to face the disagreeable fact that of the 471,512 pupils who attended school during 1882, 257,336 or 55 per cent. were absentees to a greater or less extent. In England the average attendance in 1876 was 67 per cent., while last year it was, as we have stated, 73.1 per cent., an increase of one per cent. per year. We quite agree with what Mr. Mundella says on this point in the speech from which we have already quoted: "One of the tests of educational progress is increase in the average attend-

ance." These are facts that commend themselves to the consideration of Mr. Ross. If he can enforce the law requiring a minimum attendance of 110 days at school, and can raise the average attendance, as they are raising it in England, he will earn the gratitude of all who have the welfare of the country at heart, and will make a name for himself as one of our most practical educational reformers. Of cities, Hamilton still keeps the lead with an average attendance of 66 per cent., and London brings up the rear with 49 per cent. Barrie and Port Hope, among the towns, divide the honours for first place with an average of 66 per cent. each; Dresden stands lowest with barely 38 per cent. Waterloo is first among the counties with 49 per cent., and Haliburton is again lowest with 32 per cent.

The Report still adheres to its plan of showing how *not* to give the cost per pupil by stating that for those in registered attendance only; below we give the cost for both registered and average attendance.

Average cost per pupil :—

	In Registered Attendance.	In Average Attendance.
In Cities.....	\$8 81	\$15 06
“ Towns.....	6 86	12 95
“ Counties.....	6 03	14 80
“ the whole Province..	6 42	14 13

Percentage of scholars in each class in registered attendance :—

Classes	1	2	3	4	5	6
Per cent.	35	23	25	15	2	22

We learn from these figures that 83 per cent. of the scholars were in the three lowest classes; the previous year the percentage was 81. This indicates another dark spot in our chart, for it tells us that more than three-fourths of our scholars never get beyond the Third Book. The lessons we would do well to learn from it are that in the training of our teachers, particular attention should be given to preparing them well in the elementary subjects, and in regard to the children, that their time should be occupied with the mastery of those subjects which are of vital importance in themselves. Hence the programme of studies should have the closest scrutiny. First and above all it should aim at making the children in these classes intelligent readers, writers of a clear hand, and familiar with the parts of arithmetic that will be of practical value to them. If, in addition to these, they shall have been taught to express themselves intelligently and correctly by both voice and pen, a good deal of what our system was established to secure shall have been accomplished.

There were 5,203 schools open in 1882, taught by 6,857 teachers, of whom 3,062 were males, and 3,795 females. These figures show a decrease of thirty-five schools, 300 male teachers, and an increase of 235 female teachers.

Certificates held by Teachers :—

First Class Provincial.....	246
Second “ “.....	2,169
First “ County Board.....	216
Second “ “.....	122
Third “ “.....	3,471
Temporary Certificates.....	409
Other.....	224

We still find that teachers with the lowest grade of certificate number over one-half of the total. For some unexplained reason there was an increase of thirty-three old Second-Class County Board Certificates.

There was also an increase of eighty-eight in the Temporary, and of thirty-three in the “Other” certificates. It would be interesting to know if the increase in these latter was necessitated solely by the scarcity of properly qualified teachers, or whether it arose from other causes, which it would not be convenient or easy to state. We are glad to know that Mr. Ross has shown a bit of his quality in the plan he has adopted of dealing with these temporary certificates

The Ontario Teachers' Association has persistently urged that efficiency in teaching should be taken into account, not only in awarding professional certificates, but in raising the grade of those possessing inferior ones. Mr. Ross has now empowered inspectors to supplement the deficiency in marks obtained at the Third-Class Examination by any teacher holding a temporary certificate to the extent of 200 marks, according to efficiency in teaching. Surely with such a regulation as this, temporary certificates should soon disappear altogether in all except the most backward districts of the Province.

The average salaries were :—

	Male Teachers.	Female Teachers.
In Cities.....	\$742	\$331
“ Towns.....	576	273
“ Counties.....	385	284
“ the whole Province.....	409	264

The last item we have reckoned ourselves, as it is not furnished in the Report. These figures show a slight increase in the salaries in counties and towns, but a decrease in those in cities. From a table on page sixty-two we find that in 1877 the average salary of male and female teachers for the Province was \$310; in 1882 it was \$313; hence we learn that there has been an increase of a little less than one per cent. in five years. Owing to a variety of causes the cost of living has increased considerably more than one per cent. during the same period, and the finan-

cial position of the teacher is, therefore, worse than it was five years ago.

We would suggest that in future Reports the statistics of the Public and Separate Schools be given separately, so that we may ascertain more accurately what is the condition of the former.

What has the Report to show for the increase of six per cent. in the expenditure of 1882? We fear that this increase, being largely represented in buildings and apparatus, must be regarded as bread cast upon the waters, which will return to us after many days. Certainly the statistics of the present Report do not show any return for it. The registered attendance is less; the average attendance is the same; a large number of scholars are reported as not fulfilling the requirements of the law in regard to minimum attendance; teachers' salaries have not increased, and the numbers in the higher classes have diminished. It is as well to keep these facts before us lest we should be disposed to rest and be thankful.

#### STATISTICS FOR HIGH SCHOOLS AND COLLEGIATE INSTITUTES.

The total receipts were \$373,150, increase, \$1,900; expenditure, \$343,720, decrease, \$2,129. The total number of pupils registered was 12,473, a decrease of 663; the average attendance for the whole year was 6,580. The percentage of average attendance for High Schools, Collegiate Institutes, and the whole Province, was fifty-three; this shows a falling off for the Province of three per cent. The cost per pupil in registered attendance was \$27.56; in average attendance it was \$52.24. In thirty-seven schools fees were charged varying from 50cts. to \$16 per term; the remaining sixty-seven were free. We have never heard it satisfactorily explained why a fee should not be charged in every High School and Collegiate Institute in the Province to lighten the burden of their support upon the municipalities and the legislature. There are fifty-one union schools. The average salary of the 332 teachers employed was \$765; this is \$8 less than that for the previous year. The salaries of headmasters range from \$700 to \$2,250, the

average being \$1,034; by a little reckoning we find that the average salary of the assistant teachers was \$641. Two per cent. of the scholars matriculated, six per cent. joined the learned professions, seven per cent. entered mercantile life, five per cent. took up agriculture, and eleven per cent. left for other occupations. Taking these figures as our guide, we may say that one-fourth of the scholars attending these schools require a classical education, while the occupations to which the remaining three-fourths go demand a business education. These considerations should have weight in regulating the studies to be pursued in the secondary schools.

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THE DOMINION ANNUAL REGISTER FOR 1883. Edited by Henry J. Morgan. Toronto: Hunter, Rose & Co. [pp. 505; price \$3.00.]

THIS valuable publication, now in its fifth year, is too well known to require any further praise. It contains amongst other information of public interest an excellent review of literature, science and art, by Mr. Chas. G. D. Roberts, the well known poet of New Brunswick, and a no less admirable account of the progress of education in the Dominion by Mr. W. H. Fraser, M.A., now of Upper Canada College. Every school library should have a complete set of the Annual Register.

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MODERN FRENCH READINGS, by William J. Knapp, Street Professor of Modern Languages in Yale College. Boston: Ginn, Heath & Co. 1884.

TO those who are acquainted with the "Spanish Readings" edited by Prof. Knapp, and already noticed in these columns, the plan of the present work will be familiar. It is held by the compiler, and rightly too, that to know the language the learner must have mastered modern French. In fact so enormous has been the development since the days of Boileau and Bossuet, that it is hardly doubtful that these writers would find nineteenth century French incomprehensible. How much more is it an unknown tongue to a student whose knowledge does not extend

beyond seventeenth-century models! This compilation contains some of the master-pieces of the latest standard authors (Hugo, Guizot, Gautier, Dumas, Daudet, etc.), and is on the whole well suited to its purpose.

FRENCH PASSAGES FOR UNSEEN TRANSLATION, selected and arranged by C. H. Parry, M.A., Assistant Master at Charterhouse. London: Rivingtons. 1884.

THIS little work is intended to furnish students of French with a test of proficiency. Short extracts of about one page are given, and, as more than sixty authors are represented within the limits of one hundred and forty-two pages, the book cannot fail to afford variety, both in style and difficulty.

Some very useful hints on translating unseen passages are prefaced.

EXERCISES IN FRENCH SYNTAX, with Rules, by G. Sharp, M.A., Assistant Master at Marlborough College. London: Rivingtons. 1884.

THE author does not aim at arranging an exhaustive course of exercises in the rules of syntax, but presupposing a good knowledge of French Accidence, he has made a very successful attempt to remove some of the most grievous stumbling-blocks in the way of the learner who wishes to put into practice what he has already learned. A judicious selection of "Pieces for Prose" is appended.

### EDITORIAL NOTES.

WE present our readers this month with another Public School number.

WE would be glad to hear the views of our readers on current educational questions. Short, pithy letters are always in season.

WE would again direct attention to the treatise on *Reading in the Primary Schools* concluded in this issue. The article is re-printed in pamphlet form and may be obtained for the modest sum of ten cents.

OUR new and revised clubbing list will appear in the November MONTHLY. As heretofore, we shall be able to offer our readers unexampled facilities for procuring newspapers and magazines at low rates. Last year many of our subscribers took advantage of our very special terms, and this year we would be glad to be the means of bringing within the reach of a still larger circle some of the best literature of the day.

THE Resolution adopted by the High School Section at the recent Convention

respecting the appointment of sub-examiners to read the answer-papers of the candidates at the non-professional examinations reveals at once both the lack of autonomy that characterizes teaching as a profession and the desire of the masters to remove some of the disabilities under which they labour. The masters desire that, as far as possible, teaching should be a profession as much as law, medicine and theology, and that the control of entrance into the ranks should be entrusted to experts. They naturally resent the imputation that is being laid upon their honour in that teachers are ineligible as examiners; and more especially they are offended that the casual advantages connected with the conduct of the examinations are frequently obtained by those who were never in the ranks or left them through sheer inability to remain there. Now that the attention of the Department has been pointedly directed to the grievance, the Minister will see his way, we hope, to meeting the natural and just desires of the profession. The masters, however, should not cease to agitate until the whole matter of licensing teachers is conceded to the profession itself.

LARGE as was the number of appeals from the decision of the sub-examiners in former years, the number is greatly in excess this year. We observe in the newspapers lists of candidates who, having been rejected by the sub-examiners were passed by the Revising Committee or advanced to a higher grade. The very imperfect manner in which the reading of the answer-papers has always been performed has caused to masters, pupils and parents a great deal of vexation, and in some cases, unnecessary expense. It goes without saying, that the work of reading the papers should be so carefully done that there would be no grounds for appeal and no room to doubt the ability and good judgment of the examiners. As it now is, the whole business is unsatisfactory to the public and the profession and calls for a prompt and efficient remedy.

#### THE NEW REGULATIONS RESPECTING CERTIFICATES.

THE new Regulations Respecting Teachers' Certificates are already in the hands of those more immediately interested in them, and we need not, therefore, do more than offer some general observations upon their scope so far as we can understand it.

The fundamental idea of the new curriculum seems to be that whatever else teachers may know, they must be supposed to know much English and mathematics and some science. Languages other than the English are regarded as unessential and are to receive no encouragement except by the purely fictitious method of allowing acquaintance with them to count as "a bonus." Mathematics still reign supreme. There is also an unmistakable revolt against the past. Ancient History is expunged from the curriculum for a Provincial Certificate. The number, too, of subjects required to be taught is excessive, for in most schools preparing candidates it will probably not fall short of twenty.

While sympathizing with the Department in its manifest endeavour to secure more attention to the study of English, we cannot commend the method in which this

desirable object is sought to be accomplished. Hitherto the failure to secure the best results has not been from an imperfect curriculum but solely from the wretched character of the papers set at the examinations. The resolving of *English* into its factors we may observe adds nothing new to the course of study. It apparently has been thought by the framers of the curriculum that the raising of the factors of English to a higher power will increase the value of the quantity but they have forgotten that they are dealing with fractions. Unless there is a limit to the division of details the quantity of knowledge will be reduced to zero. Plainly the remedy is in the examiners and not in the curriculum.

The excision of Latin, French and German from the curriculum, for even with the bonus addition their earning power is insignificant, is a fatal mistake, and the retrogression is sure to be attended with disaster to sound culture everywhere, and especially in the secondary schools. The effect of the new curriculum is directly to discourage the study of the classics and modern languages. In a very short time if this curriculum is enforced the work of the classical master and the modern language master in the majority of the High Schools will cease, and the High School itself will become merely a Public School with a University graduate for principal. Without staying to urge the value of the classics as an aid to the study of English and the truth of the axiom that to know only one language is to know none, we see in the new regulations a most effectual barrier to University and Collegiate training. If these regulations prevail, we venture to assert that the number of university candidates will diminish by sixty per cent.

The omission, too, of Ancient History from the curriculum for Second and Third Class Certificates suggests the unpleasant thought that our educational authorities have forgotten the origin of modern civilization and are determined that the young people of this country shall never learn it. Not to know ancient history is not to know modern history.

For the present we shall conclude by stating that the new curriculum is wholly Public School in its origin and nature, that it involves the deterioration of nine-tenths of the High Schools, and that it is inimical to the interests of the Universities.

### CO-EDUCATION AT UNIVERSITY COLLEGE.

THE champions of co-education have in a manner forced the doors of University College, and in response to the urgent call of the promoters of the scheme, for, from what we have learned, the women of the Province have had very little to do with it—three young ladies with a matron and attendant, the advance guard of what was to be a grand army of girl-graduates, is within the gates. There has been much dust and din over the so-called advance, and we were given to understand that the women of the country, ambitious of higher education, were coming *en masse* to attend lectures. Whatever virtue there is in odd numbers, and especially in threes, there is not multitude. There may be a representative of each of the Graces, but there is certainly not one for each of the Nine. The fact should now be apparent to the projectors of the movement that the idea of co-education is foreign to our soil, that it cannot be made to take root in the minds of parents and guardians, and that it is offensive to most young ladies themselves.

The Council of University College, after

giving through its President expression to its hostility to the scheme, could not do otherwise than yield to the wishes of the Government—we shall not say of the Legislative Assembly, for we hold that the vote of the Assembly last winter has been entirely misinterpreted. The desired facilities have been afforded, and in affording them in the fullest manner the College Council has now the satisfaction of knowing that the movement has as little strength as it has little wisdom to recommend it.

It is very much to be regretted in the true interests of higher education of women, that this experiment of co-education has been made. The inevitable conclusion will now be drawn by those who are opposed to all higher education, that manifestly women do not desire it, when the truth is they do not desire it under the conditions offered to them.

If the plan, long since urged in *THE MONTHLY*, of repeating in this country the experiment of Girton College or Newnham Hall in England had been tried there would be no lack of candidates. But the Legislature was reluctant to spend the money in making the experiment, and now they will be convinced that there is no necessity for it. But the friends of higher education for women must not be disheartened. They must go to work for a plan that commends itself alike to the instincts of grown women and of mature men. Perhaps the self-constituted champions of women will now permit women to think and act for themselves.

### EDITOR'S TABLE.

MR. W. N. HARTMANN, President Froebel Institute, N. A., LaPorte, Indiana, publishes an "Appeal to the Friends of Educational Progress," to assist him by their contributions to arrange for the World's Industrial and Cotton Centennial Exposition, at New Orleans, an exhibit of the character and status of the Kindergarten. Such an exhibit involves as its chief feature an actual Kindergarten in operation during the six months of the Exposition before the eyes of all who may wish to study its working. He invites correspondence.

*Harper's Magazine* for October contains further instalments of the serials "Judith," by William Black; "Nature's Serial Story," by E. P. Roe; and continuation of "The Great Hall of William Rufus" and "Artist Strolls in Holland." Of special interest to the profession is "King's College," by John McMullen. James D. Hague contributes an entertaining reminiscence of Mr. Darwin which is accompanied by a portrait of the naturalist.

In the September *Century* we have a good average number. Henry James' "A New

England Winter" is concluded "Dr. Sevier," a racy story by Cable of New Orleans life before and during the recent war, goes on with increasing interest. There are instalments of the beautifully illustrated article "On the Track of Ulysses," and of Boyesen's "A Problematical Character." The most notable feature of the number is the first of what promises to be a superb series on "The New Astronomy," with magnificent illustrations. The "Topics of the Time" and the "Open Letters" are able discussions of questions of present interest; nor must we forget a gem, "Drifting Among the Thousand Islands," by our Canadian poet, Agnes Maule Machar.

In the *Popular Science Monthly* for October Dr. F. J. Shepherd attempts to account for the aberrations of structure in the human system. Lord Rayleigh's survey of "The Recent Progress of Physical Science," which was his presidential address before the Montreal meeting of the British Association, is given in full. Professor J. P. Cooke contributes "Further Remarks on the Greek Question," and the editor keeps up his lively fight with the classicists for more room and higher consideration for science in education.

THE Teachers' Co-operative Association of Chicago announce a new branch office at Lincoln, Nebraska; Miss L. Margaret Pryse and Miss Jennie Denton, editors of "School Work," managers. All applicants are registered at Allentown, Pennsylvania, and Lincoln, Nebraska, without extra charge.

We recommend to the notice of our readers the following school papers in addition to those already mentioned:—*The Educational Courant*, Louisville, Kentucky (\$1 a year). *The Fountain*, illustrated, and very useful for supplementary reading in schools, York, Pennsylvania (50 cents a year). *The Practical Teacher*, Chicago (\$1 a year), Colonel Francis W. Parker, editor, and *The Educational Reporter*, Ivison, Blakeman, Taylor & Co., New York. We would again remind our younger teachers of those sterling and high class English publications—*The Schoolmaster* and *The Educational Times*. They are of the solid kind, and contain no froth or rubbish.

PATRIOTS and lovers of good literature will be glad to learn that Mr. G. Mercer Adam, the well known *litterateur*, is engaged in preparing a series of volumes to be known as *The Canadian Library*, which shall deal with incidents in Canadian history, Canadian biography, Canadian exploration, Canadian pioneering and backwoods life, with specimens of the Canadian Muse of both an his-

torical and an imaginative character. The series will consist of twenty-four volumes, crown octavo, printed from new type in a neat, uniform binding; eight volumes to be published per year. It goes without saying that anything from Mr. Adam's pen will be of first-rate literary value. His enterprise is always on behalf of culture and letters. We trust his new venture will meet with the encouragement it deserves.

THE October *Atlantic* contains one paper of special interest to Canadian readers—"The Battle of Lake George," by Francis Parkman. The articles:—"The Migrations of the Gods," "Southern Colleges and Schools," and "Palmer's Odyssey," will naturally attract the reading teacher. The literary flavour of the *Atlantic* is unsurpassed.

HOUGHTON, MIFFLIN & Co., of Boston, have just issued a new edition of the Portrait Catalogue of their publications. It embraces a list of all the books they publish, under the names of the authors arranged alphabetically, and in many instances describes the books or gives their contents. It contains new portraits of many of their distinguished authors: Agassiz, Browning, Bryant, Alice and Phebe Cary, Joseph Cook, Cooper, Emerson, John Fiske, Bret Harte, Hawthorne, Miss Jewett, Lucy Larcom, Lowell, Parton, Miss Phelps, Mrs. Stowe, Mrs. Thaxter, Thoreau and Whipple; besides those included in previous editions: Aldrich, Hans Christian Andersen, Björnson, John Burroughs, Fields, Holmes, Howells, James Longfellow, Scudder, Stedman, Bayard Taylor, Tennyson, Charles Dudley Warner, Mrs. Whitney and Whittier. This catalogue which appears in an attractive new cover, will be sent free to any one requesting it.

THE October *Canadian Methodist Magazine*, Toronto, amongst other contributions of great merit, contains a Latin version of "Watchman, What of the Night," by W. H. C. Kerr, B.A., Brantford.

*Lippincott's Magazine* has of late been paying much attention to educational topics. Mr. Byer's description of "A School without Text-Books," and C. W. Ernst's "Wit and Diplomacy in Dictionaries," are good samples of the kind of literature we might expect from the organ of a famous educational publishing house.

WE acknowledge the receipt of the Inaugural Addresses, etc., delivered at the opening of the Law School, in connection with Dalhousie University, at the beginning of the First Term in 1883, by the Hon. A. G. Archibald, C. M. G., Q. C., etc., and R. C. Welton, A. M., Ph.D.