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THE CANADA
EDUCATIONAL MONTHLY
AND SCHOOL CHRONICLE.

MARCH, 1879.

THE BIBLE IN OUR SCHOOLS.

BY THE REV. JOHN LAING, M.A., DUNDAS.

BY Bible we understand that volume of ancient writings which is acknowledged by Christians to be the Revealed Will of God, and authoritative in matters of faith and conduct. By Schools we understand the institutions of learning which have been established by law, are maintained by taxation or from national funds, and are intended for citizens of every class and creed, and of no creed. The question is: should this Bible be used in these schools as an element in forming the character of our children? The answer we give and propose to vindicate, as far as our limited space will permit, is in the affirmative. The Bible should have a place in our schools, and that no second place.

It has been said that "the consensus of enlightened opinion is against us." Culture, in the modern sense of the word, may be opposed to the Bible, as "the wisdom of this world" has always been, and may

seek to be divorced from that religion which has fostered it hitherto and even now is its best friend, though hated; nevertheless we call this *so-disant* enlightened opinion to the bar of common sense and Christian sentiment, under the conviction that that enlightenment is spurious which decries light which comes from God and alone relieves the darkness that hangs over man's origin, nature, spiritual interests and destiny, and which proposes in training our youth to use only the rush-lights of reason and nature.

Two objections chiefly are brought against the use of the Bible in our schools. The first is theoretic, the second practical. The former may thus be stated: Secular education of the masses is a state necessity, especially in a country ruled by the popular will. The state should therefore educate the youth, and for this end should establish and support schools. The state has no concern with religion,

and should have no doctrine of God to promulgate nor form of worship to be observed. Hence state schools should use no book of religion, but should confine the instructions given to subjects concerning which citizens of all religions, or of no religion, are agreed. This bold statement contains the gist of the theoretic objection. Ultimately it will be found to rest on assumptions, viz. : that (1) Because education is a national good, therefore the nation should educate; and that in such manner as the state sees fit. (2) The will of the nation (*i. e.* of the majority) is law for each individual citizen, and no Higher Law can be admitted. (3) The child is to be dealt with by the state directly, and not through the parent. (4) Education may be religious or otherwise as the state determines. (5) Science and philosophy may be taught, although faith in Revelation is thereby imperilled; but Revealed Truth should not be taught. In antagonism to the above we contend that (1) Education of body, intellect and spirit, is the right of every child. (2) To provide this education is primarily the duty of the parent, just as to feed and clothe the child are. (3) The state should take care that this is done by the parent, so far as it is a state necessity. (4) When the parent neglects or cannot perform this duty the state should do it for him, or aid him in doing it, just as it cares for feeding and clothing orphans and waifs. (5) The Higher Law of God is binding on the parent in the education of his child; and the state has no right to interfere or to deprive the parent or child of their God-given privilege. (6) The child ought to be dealt with by the state only in and through the parent.

Between these theories there is a fundamental and irreconcilable antagonism. And unless common ground be found in *practice*, the Christian community must withdraw, as they

cannot support schools based on purely naturalistic and agnostic principles. Such ground has been found in time past, and unless it is abandoned the nation as a whole can still support schools on a basis more satisfactory than is the theory we oppose.

It may further here be in place to protest strenuously against the *dictum* "The state, as such, has no religion and should know no religion." That dictum is not more opposed to Christian sentiment than contradictory to historical facts. In the long past what nation had not its gods, its priests, and its religion? In the present day where is there a nation without its God and its religion? A particular *cultus* is as much an essential characteristic of a nation as ethnic descent or language. Even in the United States of America, whatever may be the theory of the constitutions of the several states and of the Federal Union, we find practically a Christian Protestant nation. So far these states have resisted all the demands of Popery on the one hand and of Infidelity on the other, which are inconsistent with the revealed law of God. And beyond all question, in Great Britain and its Colonies, the Bible is recognised as possessed of authority, churches are more or less fully acknowledged and privileged, and in state schools the Roman Catholic religion as well as Protestant books are taught. This theory then fails in its application among us in Canada, as it is opposed to Christian feeling and historic fact.

The second objection, as has been said, is practical, viz. : The jealousies and rivalries among Protestant denominations render any religious instruction in schools impracticable. Were this true, we would only say the more the shame and pity, and a remedy must be found by individual denominations in the establishment of denominational schools. This would

be a less evil than to give our children a purely secular education. But the objection is opposed to facts, for (1) In many places in the past, the Bible has been taught, and in many public schools it is now taught, with the cordial approval of, and perfect harmony among, all the Protestant churches. (2) In our private schools and denominational colleges no objection is made to the religious instruction given, and still they are attended by pupils of all denominations. (3) So far are many Protestants from any deep feeling on this subject, that they even send their daughters to Convent Schools, while they dissent entirely from the religious instruction and observances of these institutions. (4) In the national schools of London, England, where the Bible is read and prizes are given for excellence in Scripture knowledge "with respect to 150,000 children, being the total number in the schools, only *fifty* parents withdrew their children from religious instruction (*i. e.* one in three thousand); *nor was a single complaint made of improper interference* during the seven years in which the regulation has been in force." These facts furnish a complete answer to the objection, showing, as they do, that the Bible can be used in schools without infringing on individual rights of conscience or disturbing the harmony which should exist among neighbours, who though belonging to different Protestant churches, hold in common the prime authority of the Word of God.

The space allotted us will allow of little more than the statement of some reasons why the Bible should have a place among our school books. Our readers must for themselves consider the full bearing and wide reach of what may be suggested.

1. We claim in the schools of Ontario a place for the Bible by *prescriptive right*. Our province has drawn

her colonists from many countries. In the fatherland of all these colonists the Bible was a school book. In England, Scotland, Ireland, Germany, Holland, Sweden, this was the case. In all reformed countries the zeal for education was the result of a deep conviction that nothing but acquaintance with Scripture truth would be a safe-guard against the assaults of Popery, or secure for the nations the religious liberty they had come to enjoy. Hence the determination to have a church in every parish and a school beside every church, where the young might learn to read the Bible and be instructed in Christian doctrine. In these schools the Bible and catechism were the books first and chiefly used. Modern scientific education had not been dreamed of, and literary attainments were a secondary object, aimed at by a very few.

When these colonists reached this western land, they founded schools, which did good service before the present more efficient system had been devised on the Alpine heights. A principal part of the work of these schools was Biblical and religious instruction. When these primitive schools had become merged in the Common Schools, the Bible was still taught. After a time in the hope that our Roman Catholic fellow-citizens would unite with Protestants in support of a national system, the Bible was to a great extent dropped to avoid giving them offence. The hope was vain. Our Common Schools, bereft of their religious teaching, were denounced as godless, and the state was forced to establish and maintain Separate Schools in which the religion of the Romish Church is taught. Why then shall not the Bible be restored to the place it ere-while held? Why should Protestants be denied the privilege which Roman Catholics enjoy? We only plead for a restoration of a precious privilege which for

a time has been by mistake suspended; we ask for no innovation, but for a return to the original and better state of things.

2. The vast majority of our citizens wish the Bible to be taught in our schools. The Bible has not been *legislated* out of our schools; no government is strong enough to propose such a measure. It has only been *quietly* excluded, and then, by "the consensus of enlightened opinion" which regulates these matters, it is allowed to remain out and is relegated to the church and Sabbath school. Every denomination of Christians would rejoice to see the Bible restored to its proper place in our schools. A few individuals object on the grounds already considered; and there is a handful of avowed infidels who have had the audacity, in their publications, "to protest against the permission of the use of the Bible in the public schools, on the ground of its being a non-sectarian book, as a manifest evasion of the truth, and a wilful disregard of the equal religious rights of the people," and to demand "that all religious exercises should be prohibited in the public schools." How small the number of such must be, will appear from last census. According to it we find, that after excluding Roman Catholics, and those returned as "religion not given," the entire number of Jews, Pagans, Mahomedans, Atheists, Deists, and those of "no religion" in Ontario, is not 8000. That is to say, for one citizen who may be supposed to object as above, one hundred and sixty desire the use of the Bible. Ought so small a minority to dictate to the vast majority of our citizens? Or should these be deprived of what they deem an inestimable privilege, because one in a hundred and sixty does not regard it as such? It is intolerably unjust; and the more so, that by virtue of a conscience clause in the law, no child

is required to hear the Bible read, or to be present at a religious service, against the wish of his parent or guardian.

It may further be well to learn from themselves the aim of those opposers of Bible truth. Here are their words: "The members of this Association reverse the orthodox obligation which insists on trying and praying for power to believe. We pledge ourselves to discourage belief, and encourage doubt, as necessary in the investigation of truth." This is plain speaking, and we ask: are Protestant Christians prepared, at the demand of such men, practically to renounce the revealed will of God, and by their acquiescence in its exclusion from our schools, to have their children trained up in the belief that God's word is of doubtful obligation? But one answer can be heard from every Christian home: "God forbid." Up then and act.

3. The Bible lies at the foundation of the British constitution and law; and is the bulwark of liberty and only safe-guard against anarchy. We need not tarry to dilate on this point. Our beloved Queen and her advisers, by many a worthy word and deed, have illustrated it. The coronation oath, the oath of allegiance, the laws regarding an established church, the Sabbath, marriage, evidence in courts, as well as those against Atheism, licentiousness, perjury, &c., all more or less directly rest on the authority of the higher law of God. In our own Ontario, a decision given last year in the Court of Appeal by Chief Justice Moss, which affirmed the right of the municipal authorities of Napanee to refuse the use of public property—the Town Hall—for the purpose of proclaiming Atheistical and Infidel sentiments, was based on the fact that our law assumes the truth of Christianity. Surely then our children should be taught that book

which so powerfully influences the conduct of state affairs.

But the Bible alone teaches the principles of true liberty and obedience. The man who fears God will vindicate his own rights and respect those of others. Tyrants in church and state fear and hate the Bible. They cannot enslave and trample on those whom God's truth has made free. On the other hand, the law of God, as it forbids impiety and profanity, protects life, purity, family relations, property, and good name. Nay, it enjoins love to our neighbour as well as to God, and thus cements society; further it teaches "Fear God and honour the King," requiring submission to the powers that be; so that a Christian cannot be a rebel against an efficient government duly constituted. And in view of assaults made from time to time by both civil and ecclesiastical despotisms, upon the liberties of man, and of the muttered growlings of anarchy in Communism, Internationalism, and Nihilism, it is of the last importance that our children read for themselves the word of God, which alone affords those principles that will conserve liberty and maintain order and peace among the nations. Surely it is nothing short of madness to deprive them of the only God-given remedy for the dangers which threaten to disturb and subvert society.

4. The Bible is the most potent instrument in education that we possess. If the end of education is to produce a body trained for useful labour, an intellect capable of clear and far-reaching thought, a will vigorous and controlling instinct and passion, a taste which can appreciate the beautiful, and a spirit holy, virtuous, and able to commune with the great God, then give us the Bible as the educator; there is nothing like that. The morality which it inculcates favours health and vigour; its doctrines

lead to the noblest, highest and grandest conceptions, "the thoughts of God;" it affords light on questions on which science and history are silent; it appeals to the most powerful and enduring motives, and awakens a noble enthusiasm that is now achieving unparalleled triumphs for man; it affords the choicest themes for works of art, and has enriched the geniuses of poetry, painting, and music; it alone brings God into fellowship with man. Of a truth it is the book of books.

Further, the subject matter of the Bible is the *Scientia Scientiarum*. Its grand subject is the spiritual nature and interests of man. The noblest and best of men might be quoted in this regard to show how they esteemed the knowledge obtained from Scripture above all other. And we can easily understand that as chemistry with its affinities is higher than mechanics which deals with masses and mere force; as biology with life force rises above both mechanics and chemistry, and controls them; so the science of humanity, in the individual and in society, with free-will reason, and acquired qualities, rises above all other knowledge. While, then, we may gather from nature and observation much regarding the material part of man; "the mysterious companion" that is wedded to his material organism must remain unknown, not understood, an unsolved mystery without a revelation from the Creator. To the Bible, then, we turn for this highest knowledge, and finding it there we have rest. Shall we then deprive our children of the book that alone gives us this knowledge, and leads our thoughts beyond this present unsatisfying world? Assuredly, if there be a God, if that God has revealed himself, if we are accountable to Him, if man is heir to another state of being, and death is not his end, if eternal

happiness depends on knowing and doing that will of God—if these things are true—then must that knowledge be of the best importance. This we, the people of Ontario as a whole believe, and therefore we demand that our children be taught this Book of God.

But the importance of the Bible may be conceded, and yet we may be told that what we urge is aside from the question; and that although not read in the day-school, the Bible should be, and is, taught in the family and Sabbath school; and that the church and the parent, not the state, should have to do with religion. Our reply must be brief. (1). *Parents* should educate their children, not the state nor the church, and *they* should see that the education given by the teachers they employ is a Christian education. Now our system recognises a certain amount of Scripture teaching and of religious worship in our schools, and we only ask that the amount be proportionate to the supreme importance of Divine truth, and that the liberty which we enjoy, (See Memorandum by Minister of Education, May, 1878,) be used by our citizens generally. As to what Sabbath schools can do, we shall just quote from the Canada Educational Directory of 1876. "If the Christian community believes that the rising generation will receive a thorough grounding in the truths of

their religion, and a due impression of their importance, by what they learn one hour a week in the Sunday school, they are in danger of being much mistaken. Much of the Sunday school teaching, as well as that of the parent, is vague, indefinite, and inefficient. Sunday schools may be better than they were, but an hour a week can scarcely be considered enough, even if the teaching were much better than it is. There is enough happening around us to make it the duty of those who believe in the restraining influences of religion to examine whether all that is possible is being done to strengthen and promote that influence on the rising youth of both town and country." These are mighty words, and every one who has to do with our advanced scholars will appreciate the expression of the head master of one of our Collegiate Institutes who was astounded at the ignorance of Scripture history shown by those who were studying Milton, preparatory to the highest examinations in the school.

Space compels us to close abruptly and to leave much unsaid, and we conclude with the words of the Honourable the Minister of Education. The Bible, if properly used, "will improve the character of our youth, and form a community distinguished not only for its intelligence, but for its fair dealing and law abiding and moral qualities."

OXFORD "GREATS."

BY BROTHER IGNOTUS.

THERE is a well known definition of an educated man as a man who knows everything of something and something of everything. The system adopted at Oxford in the final classical schools, or "Greats," in University slang, cannot indeed pretend, in the short time allowed, to teach a man everything of something. It does, however, aim at imparting to the student some conception of the connection subsisting between the various branches of knowledge, and so teaching him something, which he did not know before, of everything. The final classical school is also the philosophical school. It retains the name of classical, because the study of certain Greek philosophers and Greek and Roman historians is insisted upon. The student, however, soon finds that all-essential as an acquaintance with Plato and Aristotle are, he is also expected to be, to some degree, familiar with the writings of Bacon, Hobbes, Herbert Spencer, Mill, Henry Maine, Kant, Hegel and other modern thinkers. The aim of the course is not to store the student with facts, far less to impart to him technical knowledge of any kind. It is rather to give him an idea of what philosophy really means: to teach him that to catch a glimpse of truth he must dive lower than mere external facts and phenomena, and strive after a knowledge of those hidden laws which underlie the facts, and of which the facts are but passing manifestations. The facts are transient, the laws are eternal. At length the

student arrives at a new conception of what education means. He used, in all probability, to suppose that education meant merely knowledge of facts and knowledge of languages, he comes at last to see that such knowledge by itself is but superficial at the best. Underneath the facts of nature he is taught to see the laws of science, under the laws of science he is shown yet a deeper deep, and brought face to face with the problems of metaphysics. In all likelihood by the time he has completed his "Greats," course his ideas are revolutionized. When he began he was too apt to take things for granted, and to regard many things as obvious which he now perceives are but the thin coverings overlying fathomless mysteries. Words, again, which before he flattered himself he clearly understood, such as Law, Justice, Beauty, he now finds defy his efforts at definition. He has been using such words all his life, yet when he looks into the matter he cannot for the life of him discover what he really means by them. History used to be to him merely the annals of men and things, now he regards it rather as the record of the progress and development of society in accordance with laws as powerful, though less clearly understood, than the laws of natural science. The printing press, the history of literature, the march of freedom, the growth of commerce, the development of democracy, are more interesting and important to him than great battles and sieges.

The latter seem now, for the most part, mere breaks and stumbling blocks in the progress of humanity, or the agonies preceding a new birth. He has begun at length to see there may be more significance in scarcely perceptible changes in constitutional ideas than in the campaigns of a Wellington. Again, he no longer regards the view that certain acts are wrong because they are forbidden in the Bible, and forbidden in the Bible because they are wrong, as a satisfactory solution of the problems of morality. Retaining, let us hope, his faith that the Bible is a book of Divine reason, he now clearly perceives that any rational scheme must have a rational basis. He seeks for a moral standard. He allows now, as ever, that it is his duty to do good to others, to abstain from stealing, lying, cruelty, but this no longer contents him. The Word of God forbids such acts, but he longs to justify the Word of God to men, and to discover the Divine principle from which this code of morals may be deduced. He no longer deems a blind faith a fitting sacrifice to a God of Reason. Before he began his course the growth of the human mind probably conveyed little meaning to him. Now he has discovered that ideas familiar enough in these days, were unknown, or almost unknown, a few hundred years ago. In Politics he discovers that the ideas of Representation, of the dignity and responsibility of individual man, and of progress, familiar to all as they now are, were well-nigh undreamt of by the Greeks and Romans of old. In Ethics he seeks in vain in antiquity for the virtues of benevolence, and humility. In Jurisprudence he finds that the distinction between law and morality, and the proper function of Municipal legislation, obvious as he may think them, were never clearly grasped by the greatest thinkers of ancient times.

Everywhere he sees a possibility of a philosophy, and far, far away he fancies he catches a glimpse of that primal philosophy, that philosophy of the ultimate laws of the universe, from which the subordinate laws pervading the various branches of human life and human knowledge shall be deduced. In a word he has been taught to *think*.

What, then, is the result of all this? Many would reply, and reply in a certain narrow sense truly, "an intellectual prig." That prigs must be found at a University where such a course of study is encouraged—and found, too, among men of real earnestness, and some power of thought—must undoubtedly be the case. You take a number of young and enthusiastic minds, and you introduce them in rapid succession to regions of thought and speculation undreamt of before. They feel their minds at once, as it were, lifted to a higher level, and in the first blaze of light they fail to see how many others have reached as high and higher than themselves. "Define me a prig," says the Vicar, in the "Monks of Thelema." "Let us define a prig," replies Lord Alwyne, "as a man who overdoes everything. He becomes a prig because he is not equal to his assumed position. . . . And the universal maxim among prigs is that no one has a right to be heard outside their own body." The young Oxonian is suddenly lifted to a position to which he is not equal, and it is too much for him for a time. But all this must soon wear off, and then the good remains in those who have ever really received it. For philosophy is the highest truth in the first place; and whether a sound philosophy of a subject be or be not attainable, it is quite certain that we cannot have any real knowledge of the true meaning of facts, except so far as we understand the laws and principles which explain those facts. The excellence

of the Oxford course, however, is not usually represented as consisting so much in the knowledge it imparts, as in the method it inculcates. It aims at habituating the mind to painstaking, logical thought. It first humbles the mind by showing it its weakness and credulity, and then points out the right road to strength and certainty.

But it is sometimes objected that such studies are well enough for rich men, but that they tend to unfit a man to face successfully the dull routine of business. Yet surely this is not so. It is true no doubt that at first a man coming from the luxury of Oxford—a luxury the more seductive because it is both material and intellectual—is apt to turn in disgust from the monotonous toil of a profession. But unless he be of a temperament so self-indulgent that no training of any sort would have corrected it, this feeling cannot last. The bad wears away, the good remains. He finds the studies he has been permitted for a short time to follow unremittingly have thrown a new glory over his daily work, and inspired it with an ever-growing interest. His profession is not to him a mere daily task, but he welcomes the necessity it entails of mastering a mass of uninviting facts, because they assist him in arriving, step by step, nearer to the philosophy underlying them. The fluctuations of commerce he now sees are but the outward manifestations of the secretly working laws of political economy. The more he learns of practical law, the more clearly he sees his way to a sound conception of jurisprudence, and he feels that he is gaining access to the only possible means of estimating the truth of the theories of the great speculators in that department of knowledge. If he is engaged in political life, he is not so likely now to be animated by a mere vulgar desire for self-aggrandisement; rather he will be elevated by the feeling that he too

is taking an active, even though a humble part, in the working out of those laws, by obedience to which the progress of humanity can alone be secured. If he is a doctor, he is little likely after such a training, to content himself with being a mere empiric, he will rather feel that in the truest sense he is the interpreter of the decrees of God to men. Surely such aspirations as these are not only justified by truth, but are well calculated to throw a glorious halo over human life, to inspire professional men with zeal, and to secure to the community at large, intelligent ministers to its various needs.

Furthermore, by teaching a man how great are the mysteries of the universe, by habituating him to the endeavour to grasp the greatest conceptions the mind is capable of, you raise his whole existence. You elevate his conception of the greatness and glory of the God who made this wonderful universe, and who gifted him with a portion of his own divine reason. You make his whole life more earnest, and inspire him with a desire to strive for the highest objects. Mere mean and sensual pleasures lose half their charm for him. In the midst of the immensities and eternal verities he dare not trifle. Moreover, by enlarging his vision you teach him to think less of his own petty troubles. True, it may be, as Shakespeare says,

"There never yet was born philosopher
That could endure the tooth-ache patiently."

This, after all, is a physical pain, pure and simple, and the acuter a man's intellectual perceptions become, the acuter, perhaps, will be his other perceptions. The larger part of human life, however, is not physical, and in the conception of the vastness of the universe, and of the all-pervading laws, many a man will find assistance in meeting, more courageously, such reverses as may be in store for him.

SPELLING REFORM.

[NOTE.—It is with some misgiving that we reprint the following paper on a subject which many of our readers will consider should be held sacred from the touch of the orthographic barbarians who are now bent upon desecrating the English language and literature by their modern innovations and schemes of reform. Despite our own conservatism of feeling in the matter, however, we venture to give the paper publicity, as the agitation on the subject seems to be on the increase, and as we purpose in a subsequent number to give insertion to one or more papers in favour of the old, familiar, and undisguised spellings, even with all their anomalies and puzzling inconsistencies. The paper is the substance of a report of the Text-Book Commission of the State of Wisconsin, recently submitted to the Legislature of that State, and was prepared as an argument in promoting facility of education and economy in public expenditure for printing and writing.—EDITOR C. E. M.]

OBVIOUSLY, the most complete and practicable system of orthography is that in which every sign, or symbol, is the definite representative of a spoken sound, and in which every spoken sound is represented by a definite sign, or symbol—in other words, “a sign for every sound, and a sound for every sign.” In such a system, the child who has once learned the alphabet, or written signs of spoken sounds, should be the master of the orthography of the language, and be able to read and write his mother tongue without tedious effort or prolonged instruction.

The orthographies of the written languages of Europe, including that of our own language, assume to be based upon this fundamental principle; and many of the modern languages conform to it so nearly that public instruction in orthography and reading is a matter of comparatively trifling cost, either in time to the pupil, or in money to the public. A comparison of the progress made in orthography for a given period of time in some of the public schools of Europe, with the progress attained in our own schools, in the same branch of study and for a similar period of time, would sufficiently illustrate and confirm the

fact stated. It is claimed, and we think with entire truth, that a pupil in the public schools of Germany advances farther in one year in learning to read and spell, than a pupil in the United States in three years. It is also shown, from the reports of inspectors of schools in Great Britain, that the bulk of the children educated in elementary schools by government aid there, leave school without being able to spell accurately, or read with intelligence—a fact unknown in any civilized nation where the English language is not spoken, and a result which ought not to surprise us when we reflect, that there are probably not sixty words in our language in which the alphabetical names of the letters employed are any certain guide in pronunciation.

In comparison with the orthography of most of the modern languages, that of our own language is discreditably discordant, disorganized, and deficient. In the ideographic languages characteristic of peoples of less advanced civilization, the pupil is at least permitted the aid of a certain degree of correspondence between the thought expressed and its written symbol. To this extent he has the advantage of the pupil in our own

schools, who is left no alternative but to memorize the awkward and manifold devices and combinations by which the sounds of our spoken language are committed to paper. Nor is the task imposed upon the English pupil ever completed. Years of study in school, supplemented by years of patient care and attention in business or professional life, rarely ensures perfect results in this practically important department of personal education. The aggregate loss from this cause, in the results of human effort and enterprise, cannot be over-estimated or sufficiently deplored.

The difficulties which invest this question, relate almost exclusively to the vowels of the alphabet, and to the use of silent and supernumerary letters. In our written words, the vowel *a* has at least six sounds, *e* three, *i* two, *o* four, and *u* four—making nineteen distinct sounds for six letters. If we add the number of sounds expressed by combinations of vowels, we shall find that we have not less than twenty-four sounds in all, for which our alphabet provides but six signs.

In a paper once presented to the British parliament by Edmund Burke, it was claimed that not less than nine different meanings, or sounds, could be found in English words for the one letter *a*, while the abuses of the five remaining vowels were declared to be equally various and unnatural.

Sounds not represented by any letter of the alphabet are expressed by as many different methods as the ingenuity of man can invent, and by combinations which no rule will explain, and which no degree of patience and perseverance in study can thoroughly and satisfactorily interpret.

In his dictionary, Noah Webster attempted to indicate the pronunciation of English words by a system of diacritical marks applied to vowels, thereby virtually multiplying the

number of vowels belonging to the alphabet, and to that extent recognizing the principle sought to be practicalized by the advocates of orthographical reform.

In some or all of the readers adopted for use in our public schools, a similar expedient is resorted to, by way of relieving pupils from some part of the burden of learning to read and spell by means of signs otherwise almost wholly illogical and arbitrary. In a limited way, these devices seem to modify, but not to remove the obscurity and confusion. The first lesson the child learns from his spelling book, under ordinary circumstances, is, that to reason is crime. He finds, for example, that the letter *a* has one meaning in the word *fate*, but another in *fast*, another in *fall* and another in *far*; that the letter *o* is not sufficiently signified by the use of the letter itself, but by a multitudinous and disheartening combination of signs, as illustrated in the words *owe*, *blow*, *door*, *foe*, *sew*, *dough*, *beau*, *coal*, *yeoman*, *court* and *sword*; that the letter *o* in the words *done*, *come*, *son*, etc., is not *o* at all; that the sound of *i* is spelled without the use of that letter in such words as *by*, *buy*, *bye*, *my*, and *rye*; and that when that letter is actually employed to express a sound, it often means something wholly different from itself, as in the words *is*, *tin*, and *if*.

In his efforts to construe combinations of letters, the pupil fares no better. The letters *ai* in *jail* are not the same in *said*; the letters *eo* in *people* are something else in *yeoman*, and something else in *pigeon*, while *ough* means *o* in *dough*, *oo* in *through*, *uf* in *tough*, *auf* in *trough*, and *ou* in *plough*. The methods of expressing the sound of *e* and of pronouncing that letter, in the words *believe*, *receive*, *receipt*, *conceal*, *increase*, *concede*, *proceed*, *people*, and *sleeve*, are necessarily an inexplicable puzzle to any child or man.

The two letters *ea* form one of the most frequent combinations in our English words, but they have one sound in the word *head*, another in *bead*, another in *heard*, another in *heart*, and another in *real*. It is alleged by one author that the sound of *sh* in the word *shall* occurs in over 3,000 English words, and is represented in twenty-two different ways. Some years since, a record was kept in one of the post-offices in this state of the various combinations of letters resorted to for spelling the word *Chicago*, on letters addressed to that city, and the total number was found to be not less than eighteen or twenty; but the most interesting fact about the matter is that the erroneous spellings, phonetically considered, generally excelled the approved orthography. Prof. Wm. T. Harris, the distinguished Superintendent of Public Schools for the city of St. Louis, is our authority for the statement that the word *scissors* can be spelled in many thousand different ways, and have Romanic analogies to authorize each spelling.

Examples of these difficulties and discordances might be multiplied indefinitely; they extend to all phases and complications of the system. The pupil readily realizes that he is to spell by sight, and not by sound; that the signs of sounds are comparatively meaningless and worthless; that the composition of words is to be memorized arbitrarily; that he can write no sound with certainty of accuracy, until he has seen it written; that he can pronounce no word with certainty of accuracy, until he has heard it pronounced; that he cannot hope to become master of the language until he has conquered the dictionary of words piece-meal, and he enters upon life impressed with the painful consciousness that he must spend years of time in learning that which should be learned in as many months. In the cultivation of our lands, the wooden

plough and the slow sickle are rejected, but in the acquisition of knowledge our facilities, in respect to orthography, scarcely surpass those of the semi-civilized peoples of the east, who are alleged to be content with no less than 3,000 characters to represent 500 syllabic sounds.

In an address by Prof. March, of Lafayette College, in 1876, that learned scholar in philology referred to a computation which had been made, showing that "we throw away \$15,000,000 a year, paying teachers for addling the brains of our children with bad spelling, and at least \$100,000,000 more in paying printers and publishers for sprinkling our books and newspapers with silent letters." In a paper, read before the State Teachers' Association of Wisconsin, in July last, the late Prof. Stephen H. Carpenter, of the University of Wisconsin, stated that "as a basis upon which to estimate the loss occasioned by the employment of useless letters and combinations," he had counted the letters in the defined words, upon two pages of Worcester's Quarto Dictionary, and found an average of twenty-three per cent. of such letters silent; from which he assumed that twenty per cent. of the cost of every book is occasioned by our vicious system of spelling, and that a reformed orthography would reduce Webster's Dictionary from 1,700 pages to 1,350 pages, and the price proportionately.

The proposed reform, based upon the use of a definite sign for every distinct sound, and the rejection of all signs which do not fulfil this office, practically requires the banishment of at least three letters from our present Romanic alphabet, and the addition of eighteen or twenty new characters. Should such a modification be adopted and agreed upon, the contrast between the old and new orthography would not be essentially greater than that of the original text of Chaucer,

or Shakespeare, or Milton, and the text of any modern publication.

It is not difficult to form an estimate of the practicable possibilities in this respect, from the experience of the past. In the first edition of the authorized version of the English Bible we read: "Give eare, O ye heauens, and I will speake," etc. In Tyndale's New Testament, the pronoun *it* is spelled in eight different ways. Shakespeare spelled the words *pilgrim*, *certain*, *black*, and *again*, with the final *e*. At a more recent period, at the dictation of Noah Webster, we have changed the spelling of whole classes of words, and we no longer write *honor* with a superfluous *u*, or *traffic* with a final *k*, or *traveler* with an extra *l*. Webster hoped for and attempted more radical reforms, and at every step in this direction was applauded by the learned critics of Europe. Such reforms have been made, and are now being made, in the languages of the European continent, and are sustained by the universities and by public opinion. That which has been done in the past, or elsewhere, can certainly be done in the future and here. There the state lends its influence to this line of progress, and here no condition to continuous progress really exists, but the exercise of a competent authority to give expression to a public opinion already formed. The tendency of this opinion is never backward into darkness, but forward into light—and English speaking peoples need but slight encouragement, under existing circumstances, to enable them to achieve a greater advance than Webster dreamed of or dared to suggest, half a century ago.

In a limited degree, the proposed reform has been practicalized in many of the public schools of the United States and in Europe, by a phonic method of teaching pupils to read and spell. By this method, each let-

ter having more than one sound, is printed in various forms, the number of forms corresponding with the number of essential sounds; while letters silent in the text are printed in hair-line type, to denote their oral uselessness and insignificance. By this method, the pupil who has learned the letters of the alphabet, and their respective forms, can pronounce any printed word in the text without hesitation, even if he has never before seen the word, or is ignorant of its meaning. It is claimed by eminent teachers, that this method saves one-half the time usually occupied by pupils in learning to read and spell correctly. The diacritical marks used in readers as a guide to the sounds of letters, is an imitation of this method. Unfortunately for both expedients, no sooner does the pupil leave school than the facilities there provided him for the pronunciation of words are necessarily left behind, and ever after he is doomed to wrestle with his English alphabet, without the aid of special forms, hair-line type, or diacritical marks, to denote the special sounds of letters, or to distinguish the valuable from the worthless. The spelling reform, in its perfection, means nothing more, and nothing less, than to generalize and popularize the principle of those easy methods of reading and spelling, already demonstrated to be wholesome and valuable by practical application in the restricted degree stated, and thus dispensing with that obnoxious system of English orthography described by Lord Lytton as "a lying, round-about, and puzzle-headed delusion."

The deficiency of system and organization in English orthography, while alleged to be discreditable in itself, is not assumed by us to be discreditable to the history of the peoples upon whom its use is enforced by long usage, and by laws of growth

and development far beyond their immediate control. It is true, that there is no known language of the globe, living or dead, which has not contributed something to the English vocabulary; and it may be at least gratifying to pride of race to believe that the facts we deplore are but the fruit of innumerable conquests, and a predominating activity in literature, arms, and commercial competition. However this may be, the fact of obnoxious and expensive imperfections remains, and with this fact we are compelled to deal as best we may. And we may safely add, that a capacity to organize and utilize the verbal conquests of the English speaking races would redound to their credit quite as much as the methods by which their victories in this department have been achieved.

The agitation of this question is not promoted at the present time under such auspices as to beget any timidity on the part of those who possess any legitimate means of imparting positive aid to the proposed reform. The weight of scholastic opinion is positively on the side of every wholesome effort in this direction; and organizations in this behalf, in this country and in England, at the present time, embrace scholars and statesmen of the highest personal attainments and public repute. In England, more than one hundred school-boards of the kingdom, including the school-board of the city of London, petitioned the crown for the appointment of a commission to initiate measures of reform in this department. Similar commissions have been appointed by one or more legislatures in the United States, and the movement is being actively supported by philologists of distinguished character in American and foreign universities and colleges; also by organized bodies of citizens and by ably conducted publications. During

the past season, nearly four hundred residents of Wisconsin, officers and professors in our colleges and teachers in our public schools, have united with Professors March, of Lafayette College, Goodwin, of Harvard, Trumbull, of Hartford, Whitney, of Yale, and Haldeman, of the University of Pennsylvania, in a memorial to Congress asking the appointment of a national commission, and representing that the irregular spelling of the English language causes a loss of two years of school time of each child, and is a main cause of the alarming illiteracy of the people.

The objections to reform in orthography sometimes urged by philologists, are not deemed worthy of extended consideration in this connection. The proper purpose of language is not to preserve its own imperfections, and thereby supply historic hints to verbal experts. Nor is the modern significance of written words, in a vital degree, dependent on their origin and historic form. Nor is the historic character of language necessarily lost or essentially obscured by improvements in its orthographical structure. A natural and rational method in orthography—such a method as the word orthography itself implies—at the worst, could be regarded as but one change in addition to innumerable previous changes—the last certainly equal in historic and illustrative value to any preceding series of modifications. And the sounds of words, really the more useful and reliable source of information in respect to the origin and definition of words, would be rendered far more definite, permanent, and secure than under existing circumstances.

As we have already intimated, the opinions of English authorities are now practically in accord as to the utility and propriety of reform. Unfortunately, however, the same unan-

imity of opinion does not exist as to the precise extent or precise method of the proposed reform. Various modifications of the alphabet have been devised—some of them but slightly modifying the number, form, and force of the letters now in use, while others imply radical changes and embrace distinct signs for the forty or more distinct sounds belonging to the spoken language. None of these are without merit, and all tend to promote the general purpose, which is increased facility, brevity, and economy of time, in written expression.

It is not the duty of this commission to devise a new alphabet, or to pass judgment upon the comparative merits of new alphabets already devised by others. We are decided in the opinion, however, that it is essential to success that any reform undertaken should be radical and complete. Public prejudice and immemorial usage are formidable hindrances to progress, but cannot be best overcome by concessions of principle, or coaxed into submission by shallow and frivolous devices. The intrinsic merit of the proposed reform is its only argument and defense, and compromise implies little or nothing less than discouragement and surrender. In the nature of things, that form of a letter which possesses the largest degree of simplicity and individuality, is best adapted to its purpose, as a written or printed symbol of sound; and no concession which implies a sacrifice of clearness, distinctness, or

such a reasonable degree of harmony as is consistent with convenient diversity in form, is necessary, or should be tolerated.

Nor do we believe the practical difficulties presented to be insurmountable. It is true we have in this country no central authority to enforce a higher standard of excellence in this department of literature. We are also aware that voluntary and disinterested efforts to enlist the co-operation of teachers, publishing houses, and the press have signally and necessarily failed. The authority for all, in orthography, is the dictionary—and not too much is to be expected from publishers of dictionaries, while solely dependent upon their general sales for the rewards of their enterprise.

It is fair to presume, however, that if a reformed alphabet and a modified orthography should be presented, under such conditions as to command the comparatively united approbation of scholars, and especially of persons and organizations devoted to the purpose of reform, such a measure of authority would attach to the movement as to commend it to legislative consideration. In such case, it would be the undoubted prerogative of the state, as a measure of public economy, to promote progress in the adoption of the superior method; not by arbitrary enactments, discordant with popular practice, education, and opinion, but by affording an opportunity for the natural operation of the law of selection.

ON SOME IMPORTANT PRINCIPLES OF COMPARATIVE
GRAMMAR AS EXEMPLIFIED IN ABORIGINAL
AMERICAN LANGUAGES.

BY THE REV. JOHN CAMPBELL, M.A., MONTREAL.

SO soon as a scholar seeks to acquire the knowledge of a language other than his own, he enters the domain of comparative philology. It is impossible for him to proceed in his studies with any degree of intelligence, without comparing his native forms of speech with those of the language he strives to master. The declensions and conjugations of Latin, Greek, Sanscrit, French, German open up a new world to one who has known little more of declension than a possessive case, and whose ideas of conjugation are largely limited to the use of auxiliaries. The divinity student, whose mother tongue is Gaelic or Erse, is not astonished to find only two tenses in his Hebrew and Chaldee verb and to meet with the pronoun as a suffix instead of a prefix, because these are in accord with the genius of Celtic grammar; but his English-speaking companions awake, in the study of these languages, to the realization of a new order of thought. Grammar is found not to be the same all the world over; the mechanical disappears in the philosophical; and the memorizer of forms becomes an observer of mental processes. In the syntax of different languages he learns what prominence is given by those who speak them to existence, quality, personality, action, time, modality, relation, and instrumentality; and grammar thus becomes

a psychological phenomenon worthy of any man's investigation. Such studies have generally been pursued within the narrow range of the Indo-European languages, to which the Semitic have occasionally been added. The Turanian languages have been paid little attention to, save by professed philologists, although it is among them that the simplest representations of mental processes are to be found. Nearly all the shades of Turanian grammatical distinction appear in the tongues of this continent, and I propose to refer briefly to some of them in this connection.

The student of Latin, Sanscrit, or German grammar knows that prepositions are not always placed before the words they govern, but that they sometimes merit to be called postpositions. Thus in *Æthiopia tenus, Italiam versus, mecum, Ehre halber, Uns entgegen, die Nacht durch*, we have the impossible English constructions, *Æthiopia as far as, Italy towards, me with, honour for the sake of, us against*, but also one that is possible, *the night through*. The Latin frequently dispenses with a preposition, which is not therefore regarded as unexpressed, but is recognized in the case-ending of the word governed. Was this case-ending originally a postpositional particle in Latin, and in Greek, Sanscrit, German and other languages possessing declension?

The Hebrew, Arabic, and Assyrian in their most ancient forms had case-endings as well as prepositions, but the former soon fell into disuse. The ancient Egyptian employed prepositions, but knew no declension. The declension of Gaelic and Erse nouns, as seen in the noun itself, affords no countenance to any connection of inflection with postpositions; for the case changes are generally found as alterations of the medial vowels of the word, not as suffixes. The preposition combined with the article is the true mark of case, as in French. The Malay and Polynesian languages are prepositional in the same way generally as Gaelic and French, declension being marked by a prefixed article affected by a preposition. In some of them the article is invariable, the preposition thus appearing in all its integrity. We may say, therefore, that the Aryan, including Celtic, the Semitic, and the Malay-Polynesian languages are all prepositional, although exceptional cases of the employment of postpositions appear in some of them. But the tongues which are generally denominated Turanian are postpositional. Thus the Ural-Altaic family, comprising the Finnic languages of Europe and the Tartar, Mongol and Tungus of Asia, together with the Dravidian or Turanian Indian languages, employ postpositional particles. The same is the case with the Tibetan, and with the Japanese and cognate tongues. The Chinese, and many of the Indo-Chinese and Himalayic languages, generally known as Monosyllabic, employ prepositions.

Now what we call, and as students of comparative grammar wrongly call, a preposition is a term expressing relation of possession, attribution, instrumentality, &c. To employ such a term as a preposition proper is to set relation before existence, an abstract term before a concrete. Judging of the psychological value of such a

procedure by the peoples who employ prepositions, one naturally regards it as indicating a higher order of mind than that which gives prominence to existence and subordinates the relation as a postposition. Yet the preposing Malays are not regarded as a race possessing much intellectual power; and the Accadians of ancient Chaldæa, who were the virtual founders of Asiatic civilization, the inventors of letters, and the authors of Old World mythology, were a postposing people. Nor can we say that the postposition is the older, and the preposition the younger order for the expression of relation, because the Egyptian, one of the oldest of all languages, was prepositional. There would seem, therefore, to have been originally a radical distinction in men's ways of looking at things in their relations, as well as a subsequent modification of view, as exemplified in the history of those languages which have combined prepositions with case-endings or have discarded the latter for the former.

Turning now to this continent, we find that the phenomena of the Old World in this respect are reproduced in the New. Some of our American Indian languages are prepositional, but the greater number employ postpositional suffixes. The most important preposing languages are the Algonquin in North, the Maya-Quiché in Central, and the Mbaya-Abipone in South America. Of these the Algonquin family is largely Canadian. The Chippewa or Ojibbeway is perhaps better known than any other tribe of this family, but the Delaware, the Cree, the Ottawa, the Missisagua, the Nipissing, the Abenaki, the Micmac, are not unfamiliar. Captain John Smith found Algonquins in Virginia. The States of Massachusetts, Maine, and Illinois took their names from tribes of this stock. Mohicans, Narragansets, and other

New England clans, have been celebrated in the writings of Fenimore Cooper. The name of Tecumseh has immortalized the Shawnoes. On the Saskatchewan the Blackfoot is as well known as the Ojibbeway in Ontario or the Micmac in Nova Scotia. And the Shyenne has recently risen into sad notoriety in connection with the barbarous Indian policy of the United States. These are but a few of the more important tribes of the extensive Algonquin family, whose employment of prepositions distinguishes them from the Athabaskan or Tinnéh, the Dacotah or Sioux, the Iroquois, and the Choctaw families, which either border upon them or interrupt the continuity of their area. The languages of these neighbouring tribes or families of tribes employ postpositions, and postpositions only; but, while the Algonquin also makes occasional use of such particles, most of its terms denoting relation are prepositions. The partial use of postpositions by a preposing language is not purely American, for, as we have seen, it is the case in Latin, German, and Sanscrit. It appears also to a small extent in Chinese. The partial use of postpositions in Algonquin, therefore, may be explained either by the analogy of frequent exceptions to the rule in other preposing languages, or by the influence exerted upon the Algonquin by all the forms of native speech with which it is in contact. So few are the exceptions, that postponing languages may be said never to employ prepositions, so that the presence of these terms in a grammatical system, apart from the universality of their use, is sufficient to stamp that system as prepositional. The radical diversity of two grammatical systems belonging to one geographical area is well exemplified in the Chippewa or Ojibbeway on the one hand, and the Iroquois or Six Nation language on the other. The

expression, *under the bed*, is rendered in Chippewa, *anamaii nibaganing*, where *anamaii* is the preposition; but in Iroquois it would be *kanakt-okon*, where *okon* is the postposition. So, in Iroquois, *ontchicht-aktu* is *near the fire*, literally *fire near*; and in Cree, *tchik-iskutek*, *tchik* being the preposition. In Polynesian, as in the Tongan *gi-he-afi*, we find the prepositional order, *gi* being *near*, *he* the article, and *afi*, *the fire*. But the Turkish order in *memleketah-yakin*, literally *city near*, is that of the Iroquois.

In Central America, the Maya-Quiché family contains languages that, in spite of postpositional surroundings, use prepositions exclusively. Such are the Maya of Yucatan, the Quiché and Poconchi of Guatemala, and the Huastec and Totonac of Vera Cruz. Two of these languages, the Maya and Quiché, were written in characters that may be termed hieroglyphic, and the latter is embalmed in an ancient literary record, the Popol Vuh, which has been translated into French by the Abbé Brasseur de Bourbourg. It is certainly astonishing to find the grammatical forms of the barbarous Algonquin agreeing with those of the cultivated Mayas and Quichés, as they do not only in regard to prepositions but in many other respects. The Maya *ti-luum*, "on the earth," and the Quiché *xol-ha*, "between the houses," are Algonquin, Malay, Semitic, Aryan, in form. The neighbouring Aztec, which generally employs postpositions, even when it apparently alters the order, really retains the postponing principle. For instance, in *y-ca-tell* we have *it-withstone*, the mark of relation or instrument being indeed preposed to the noun, but postponed to the pronoun which represents it.

Once more we must traverse a great area of postpositional languages before arriving at any important family of preposing tongues. The Muyscas

of New Grenada, the Caribs of Guiana, and the Guaranis of Brazil employ postpositions, as do all the Peruvian tribes. In the Kiriri of Bahia, in Brazil, however, we find a preposing language, whose geographical position, strange to say, like that of some of the Algonquin dialects in North America, is almost the extreme east of the continent. But the most important preposing family of South America is the Mbaya-Abipone, including, besides these two languages, the Mocobi, Toba, Lengua, Payagua, and others. The peoples speaking these languages are found in La Plata and Paraguay, as neighbours of the postponing Lules and Vileles, who are also Indians of the Gran Chaco, and of the Araucanians of Chili. The latter people, belonging to the Chileno family, present one of the rare exceptions to the rule that postponing peoples are invariably postponing, for, while all the characteristics of their language are such as to link them with the postponing Peruvians, it appears that they occasionally make use of prepositions. This may possibly be due to Mbaya-Abipone influences.

Taken by itself the distinction between native American languages as preposing and postponing the term indicating relation may not seem such as to warrant any broad line of demarcation. It is, however, invariably accompanied with other distinctions. One of these is the position of the temporal index in the order of the verb. The Rev. Richard Garnett, quoted by Professor Daniel Wilson, says: "We may venture to affirm in general terms that a South American verb is constructed precisely as those in the the Tamul and other languages of Southern India; consisting, like them, of a verbal root, a second element defining the time of the action, and a third, denoting the subject or person." So far as the

three elements in the verb are concerned, the above statement is correct, but in regard to the order of root, temporal index, and pronoun, there is diversity. In the Tamul it is as Mr. Garnett has stated; thus, in *sey-gind-en*, I do. *sey-d-en*, I have done, *sey* is the verbal root *do*, *gind* is the present, and *d*, the perfect temporal index, and *en* is the pronoun. But in Mbaya "I came" is *ne-ya-enagui*, "I shall come," *de-ya-enagui*. The verbal root, *enagui*, is final, and the temporal index precedes not only the verbal root but also its prefixed pronoun; *ne* or *quine* being the index of the past, and *de* or *quide*, of the future. The Quiché of Guatemala follows the same order, as in *ca-nu-logoh*, "I love," *xi-nu-logoh*, "I have loved," *ch-in-logoh*, "I shall love," where *ca*, *xi*, and *ch* are the indices of the present, past, and future, *nu* or *in* being the pronoun, and *logoh*, the verbal root. The Algonquin agrees with these in preposing the temporal index, but differs in placing the pronoun before that particle, e. g., *nin-gi-sakih* is "I have loved," and *nin-ga-sakih*, "I shall love," *gi* being the index of the past, *ga*, of the future, and *nin* being the pronoun. Thus the three prepositional families of American speech agree in placing the temporal index before the verbal root as well as the pronoun, the only difference between them being in regard to the relative position of pronoun and index. This is not Tamul, because Tamul is of the postponing Dravidian family. But it is Malay-Polynesian, so that in the preposing Tongan we have *goo-ger-aloo* "thou goest," *na-ger-aloo*, "thou didst go," *te-ger-aloo*, "thou wilt go." In these examples *ger* is the personal pronoun, *aloo* the verbal root, and *goo*, *na*, *te* the indices of the present, past, and future respectively. Here then is complete agreement between the verbal forms of the Polynesian and of the American languages

which, like it, employ prepositions. Time and personality are thus more prominent in these languages than action, just as relation was found to be more prominent than existence.

In the postponing American languages we find the Turanian verb. The Quichua of Peru follows the order of the Tamul in *apa-n-y*, "I carry," and *apa-rcau-y*, "I carried," or "have carried." In *apa* we have the verbal root, in *n* and *rcau*, the temporal indices, and in *y*, the pronominal suffix. The Quichua is a postpositional language, possessing what is rare among American tongues, a declension, the case terminations of which are plainly postpositions, such as the dative termination *pak*, the accusative *cta* and the ablative *manta*. The Finnic and Tartar divisions of the Ural-Altai family follow the order of the Tamul or Dravidian and the Quichua verb. But as we have found the Algonquin differing from the Mbaya and the Quiché in the position of the pronoun, so in postponing languages we meet with the pronoun sometimes as a suffix and oftener as a prefix to the verbal root. Thus, while it is a suffix particle in Finnic, Tartar, Dravidian, Quichua, it is a prefix in Mongol and Mantchu, which, equally with Finnic and Tartar, belong to the Ural-Altai family. It is a prefix also in Japanese and the languages connected with it in north-eastern Asia. Thus *watakusiga-mita*, "I have seen," in Japanese, consists of three parts; *watakusiga*, which Dr. Ekins, of Pekin, regards as the longest form in existence denoting the pronoun I, *mi*, the verbal root *see*, and *ta*, the index of the past tense. Similarly the Iroquois *ke-nomwes-kwe*, "I loved," contains first, the pro-

nominal prefix *ke*, second, the verbal root *nomwes*, and, lastly, the index of the past tense *kwe*. In all the allied postponing languages the temporal index follows the verbal root, so that the idea of action precedes that of time, just as existence precedes relation. The idea of personality varies in order even in the Mongolian branch of the Ural-Altai family, as well as among the American Turanian languages, for, while the eastern Mongol says *bi alana*, "I kill," the Buriat Mongol says *alana-p*, "kill I." As a rule, however, the American Turanian or postpositional languages prefix the pronoun to the verbal root, thus giving prominence to personality. The Latin, by its sparing use of the pronoun and the substitution for it of the personal termination of verbs, follows the Finnic, Tartar, and Dravidian order.

The positions of the genitive in relation to the word governing it, of the accusative and its verb, of the noun and its adjective, vary similarly in the two classes of languages under consideration, of which, in Asia, Altai and Malay may be regarded as the types. Similar variations occur in America among the languages already distinguished as preposing and postponing the terms which designate relation and time. These distinctions may enable us to form an opinion as to the derivation of our American Indian languages, and to refer them either to Malay-Polynesian or to Northern Asiatic sources. But they also enable us to form juster conceptions of language in its relation to thought, and to explain some of the phenomena which appear even in the grammars of an ordinary school curriculum.

CATHOLIC EDUCATION IN ONTARIO.

BY T. O'HAGAN, HEAD-MASTER, SEPARATE SCHOOL, BELLEVILLE.

THE problem of Catholic education is day by day assuming greater importance in Ontario. Catholics are themselves beginning to realize their position in educational matters. They are slowly recognizing the fact that it is not just or right that they should add their quota towards the sustainment of a school system in which the Separate School has not a place to lay its head. Aware of this, the Catholics teachers recently inaugurated a movement which is destined, at no distant day, to result in the establishment of a wise and proper separate school system. That such a step was necessary no person acquainted with the workings of Separate Schools in the Province will attempt to gainsay. Catholics are themselves the best judges of the wants and necessities which characterize the present so-called Separate School system. The verdict is that we virtually possess no Separate School system. Who are to blame for this state of things, it is not within my province to say. The fact is, that in Catholic Quebec, with only one hundred and seventy thousand Protestants, the latter are granted a separate body in the Education Department with a Deputy Minister of Public Instruction. If, therefore, the Protestant schools of Quebec do not show progress, it is at all events not owing to the intolerance of a Catholic people. Nor is this the only feature to be admired in the liberality of Catholic Quebec. In the supervision of schools, Protestants are

also allowed distinct Inspectors for their own schools, and the very happy privilege too, of having Protestant Normal and Model Schools for the training of their own teachers. So much for Catholic Quebec. Why, even Manitoba, the infant Province, but eagerly lisping the educational alphabet, shows a better disposition to solve the school problem to the satisfaction of all. The last issue of an educational contemporary contains a portrait of a Rev. Mr. Pinkham, who is at present Superintendent of Protestant schools in the Prairie Province. What does all this indicate? That we are surrounded by liberality. In fact, were I asked to bound Ontario educationally, I would say, bounded on the north-west by liberal Manitoba, on the east by liberal Quebec, and on the south by the state of stolid indifference. And yet Ontario, proud in its intellectual growth, with a Catholic population of some two hundred and fifty thousand, possesses no Separate School system. True, we have schools, but do-schools, I ask, constitute a system? I think not. As well might the term army be applied to a concourse of undisciplined populace. A great many, and Catholics too, hold up their hands in indignation and ask, why do our Separate Schools not show better results? Show better results! Why, it is a wonder that they sustain their character as they do. In what manner, I ask, were Separate Schools first ushered in? When the public school infant, rocked and dandled into

a promising existence by the sweet lullaby of the Catholic ratepayer, waxed strong and vigorous, the Separate School infant, born in adversity, confronted at every step by an obstacle, has been utterly left without a protector, a patron, or a guardian. It is very well to speak of the success of public schools, but to what should that success be attributed, save to a judicious legislation and care? Strip the public schools, at this moment, of their uniformity, their careful supervision, their patronage from the Educational Department, and the array of training schools which respond to their wants in supplying good and efficient teachers, and I will show you, within the space of ten years, an Ontario desert in educational matters, with not even a single oasis to meet the eye. It is time this nonsense concerning results in Separate Schools was consigned to a speedy grave. And I believe it to be the duty of every Catholic to smite such nonsense with no aimless blow. Give Separate Schools the same legislation, the same government, the same care that is bestowed on the public schools, and I venture to assert that, within five years, they will show results which will challenge competition from any other system of schools on the continent of America. In the new School Bill introduced by the Honourable Mr. Crooks, Minister of Education, the trustees of a separate school in a village, town, or city, being the county town, are invested with the power to appoint a Catholic on the County Board of Examiners. This is good enough in itself as regards representation in the matter of the examination of teachers, but such legislation means simply nothing towards the proper establishment of a Separate School system. I cannot see in this any provision for the proper and uniform supervision of our Separate Schools. I cannot see in this the right to establish Catholic Model Schools

for the training of Catholic teachers. Nor can I see in it any approach to the liberality extended to the Protestant minority of Quebec in their representation in the Educational Department. The Annual Report of Education, for 1877, gives the total number of Separate Schools in the Province as one hundred and eighty-five, an increase of eighteen over the previous year. This speaks well for a system of schools with no legislation and care. Notwithstanding their gasping for breath, and the precarious existence dragged out, they have possessed sufficient vitality within themselves to multiply, if not a hundred, at least a dozen fold. This goes to prove that the Separate School is not an institution of yesterday, nor of to-day, but a fixed necessity in the dawning hope of Canadian educational greatness. That the education of some twenty-four thousand Catholic children must necessarily be of vital importance, every one will quickly recognize. Now this education devolves upon the Separate School, which is the bone and sinew of Catholic education in this Province. Should we then stolidly fold our arms, watch the progress of the age, applaud and say, well done public schools! while our own schools are through neglect, in many instances, drifting back into chaos. I think not. Let us therefore, by legislation, endeavor to release our suffering Separate School from this pent up Chinese boot, in which by accident of birth, it has been up to this confined. A proper legislation for our Separate Schools can never impair the growth and progress of the public schools. In fact, strictly speaking, I cannot see but one system of schools in this Province, and this comprises both separate and common schools. Each school has a share in the advancement of educational progress in our midst. Each is public, in every sense of the word. The only line of demarcation between the two

classes of schools, consists in the light in which Protestants and Catholics view the purposes and ultimate object of a true education. This gulf must necessarily exist, nor can any accommodating legislation, or specious compromise bridge the chasm. In vain will school boards and school authorities moot amalgamation. The Catholic Church, in educational matters, as in matters of faith, is the same yesterday, to-day, and forever. We know our position, and by a moral calculation, measure the sum and distance which divides us. Nor is it incumbent upon any Catholic to rail against public schools. In fact, I think that they are worthy of great admiration, at least in this Province. And Catholics, as well as Protestants, should feel proud of them as efficiently fulfilling the purposes for which they were designed. Who, I ask, is not struck with the form and beauty of a proportional man? So with the institution of the public schools, we are forced to admire its harmonious symmetry. But should we go a step farther, and like to the beautiful man, enquire about the beauty of the soul, would its moral being, I ask, correspond to its flashy intellectual grace on the surface? Let the virtue of a Canadian people one hundred years hence answer. It is not my intention to arraign the public schools of Ontario before a tribunal to make confession of their sins, or to answer for the faith that is in them. This is not my business. The public schools belong to the state, and if they have any school sins to answer for, or chastening virtues to be admired, Catholics are partakers of neither the one or the other. This can, at least, be happily said of our public schools, that incidental moral instruction has not as yet been forbidden in their class-rooms, nor is religious instruction regarded in any light as a crime. Not so in the American Republic. In the "eat and drink and

bemerry" of the Commonwealth, proud intellect reigns supreme. The soul is nowhere. What is the consequence of this? The boasted state school, in all its intellectual glory, is but the cradle of infidelity, the noxious nursery of a godless race. The Government which legislates God out of the school, and guards its portals like a fallen angel with fiery sword in hand against the introduction of religion within its precincts, is but sharpening the claws of the people to commit crimes which will necessitate a still more fiery sword to guard and keep within the iron portals of a prison wall. The greatest statesmen America ever produced were educated under religious influences. Now, scarcely a shadow of religion lingers around her schools. Shall the future statesmen be but shadows of the past? So much for religion in education.

Let us now see what the Catholic Church, which justly says to the state, "I only know how to educate, you do not," has done in the shaping of the educational history of Ontario. True, the Catholic Church does not pile its work before the public gaze, and say this is my work. She seeks rather to fulfil her mission in education in the most silent and unostentatious manner. She does not choose to measure swords with an opponent in the arena of literary wrangling. The task of leading the mind onward, and the soul upward, is accomplished in the quiet retreat of her colleges and convents, amid no flourish of trumpets or plaudits of an assembled people. The result is, that Catholic education in this Province, in one sense, stands pre-eminently high. There is scarcely a town of any importance in which the bell of the convent does not sprinkle the air. These convents, in many instances, equal, and even surpass, many of our High Schools. Nor is it intellectually alone

that they are most attractive. Many Protestants prefer to send their daughters to the convent on account of the careful and virtuous training which they receive at the hands of their teachers, the sisters, and which often shapes their whole future life. True, our Catholic Institutions do not make a display of their work before Commissioners of Education and World's Expositions, but the Catholic Church is contented with meriting the words addressed to her by her Divine Master "Well done thou good and faithful servant!" She will be content with one great World's Exposition, when the great Creator of the universe will form the tribunal—*then* the work of the intellect *must* come second to the great work of the soul. I have said that the Catholic Church is doing great things in the matter of education in Ontario, and I believe she would do much greater were our Separate

Schools not fettered by an unjust legislation. Catholic teachers of Ontario you have a noble work in hand. Yours is a dual engagement. You educate alone, not the intellect, but you educate the heart. In a word, you educate for this world, and you educate for the next. Let there be then a harmonious blending of Catholic thought and Catholic action in the matter of obtaining a better legislation and recognition for our Separate Schools. A blending of element, a blending of thought, a blending of firm and decisive action. These will carry. And though public opinion, proud in its own conceit, may at times revile your work, you can afford to vindicate yourself in the words of Cardinal Richelieu to King Louis of France, "pass sentence on me if you will, my name, my deeds, are registered in a land beyond your sceptre."

THE LUNGS AS THEY CONCERN EDUCATORS.

BY T. W. MILLS, M.A., M.D., RESIDENT PHYSICIAN, CITY HOSPITAL, HAMILTON.

INASMUCH as the writer's last contribution to this journal dealt largely with ventilation—pure and abundant air supply for schools—the organs concerned with appropriating oxygen and eliminating carbon dioxide may, in natural sequence, be treated of in this paper, which the press of professional work at this season must render brief—perhaps somewhat synoptical even in some instances.

Anatomy naturally precedes physiology, and the latter hygiene; so in conformity with the principle let us first examine the anatomical structure of the chest and its contained organs. The chest is a bony framework

strengthened and bonded in front by the sternum—a flat bone; and behind by the vertebral column, both these permitting a certain amount of movement backwards and forwards; but as compared with the ribs comparatively fixed; especially must the spinal column be considered as the fixed plane upon which the ribs move up and down, each one much like a pump-handle in the body of the pump—to use a very rough sort of illustration—for the writer wishes to be understood not only by teachers but by pupils; which latter class he is pleased to learn are among the ambitious readers of this journal. Now,

the ribs are inserted at a considerable angle, and in consequence the chest is capable when they are elevated, of an appreciable increase in the antero-posterior diameter—as any one may test by measurement of its circumference during a full *inspiration*.

When the diaphragm, or chief breathing muscle, descends in inspiration the chest increases in its vertical diameter; so that with each inspiration the chest is enlarged in both diameters. The elevation of the ribs is effected under ordinary circumstances by the muscles attached to them (intercostals); when a severe demand is made on the breathing power, certain muscles attached to the neck, shoulders, &c., assist the intercostals. This is well observed in some diseased conditions, notably in asthma. The principal organs of the chest are the heart and lungs. These as a rule bear a close relationship in size and power to each other, and as upon their action the vigour of the body chiefly depends, the value of attending to their development will be obvious at a glance. As the relation of the lungs to the chest walls does not seem to be very well understood by ordinary students clearness will be aimed at even to the point of simplicity. The lungs may be popularly yet correctly viewed as made up of a number of tubes composed of cartilaginous rings except in their extreme ramifications, where this form is merged into simple membrane; upon which tubes we find gathered a vast extent of membranous surface into an infinite number of duplications or unfoldings on which the finest lung capillaries are distributed. Now, as any one may test by taking a piece of lung ("lights") in his hand and squeezing it, the air contained in the cells may be pressed out; by insertion of a tube into a bronchial pipe the lungs may be inflated. The lungs as they exist in the living animal are

inflated or expanded by the rushing in of the air surrounding us and ready to enter wherever any opening is provided for its ingress. All that the animal organism has to do with the act of inspiration is accomplished when the muscles enlarge the chest and give room for the expansion of the lungs or for the air to find additional space to fill. In *expiration* there is more—the elastic tissue of the air cells contracts—the chest is diminished in size by the relaxation of the rib muscles and descent of the diaphragm—so that *under all circumstances the lungs and chest walls are most accurately in contact*; as are also the lungs and the central dividing muscle, the diaphragm. On this fact stress is now laid in view of conclusions to be drawn later.

The lungs are concave below to fit the convex upper surface of the diaphragm and convex above and project a short distance into the neck above the collar bone. Inasmuch as tubercular ("consumptive") disease of the lungs commences most commonly at this site (apex) it is important that this part of the body should be well covered. The folly of low-necked dresses, will thus be apparent. This practical hint is by the way, however. It is said that the size of the nostrils or doors of entrance for air are large in persons with large chests—and naturally so. Certainly the size of the closed fist is a pretty accurate measure of the size of the heart. But the measurement of the chest will always, from the anatomical facts stated above, give the size of the lungs—making allowances, of course, for the chest walls—the size of which must be subtracted. What determines the size of the lungs? The size of the chest wall it will at once appear. The size of the bony part of the chest depends upon the same law of development as osseous structure elsewhere, viz. : upon

the size and extent of functional use of the muscles attached thereto, that is to say, of course, limited by the original power of the bone to reach a certain size under the conditions most favourable to its development.

The question next in order is, under what circumstances is the muscular exercise requisite to enlarge the chest walls and therefore the lungs induced? Suppose that A.'s heart, when seated quietly in a boat beats at 70 per minute. Let him now take the oars and row at 20 strokes per minute—what follows? The general muscular exercise exhausts by the increased vital processes, the material supplied by the blood at a greater rate or, in a word, demands a larger or quicker blood supply. This need is felt in every part of the whole economy by the nerve distribution, and telegraphed, so to speak, to the heart and lungs simultaneously—or say to the heart if you will, which forces blood more rapidly—to all parts, including the lungs. They, to supply oxygen to an increased volume of blood, must move more rapidly. The muscles of respiration harmonize in their movements with the requirements of the lungs, for all parts of the nervous system alike are made to feel the need of increased muscular action, and so the muscles of respiration act accordingly. By increased action of the muscles of respiration, the bones of the lungs, as well as its soft tissues, are increased in size by the invariable law that in all animals up to a certain period of their existence manifests itself, viz., that *functional activity produces growth*. Why it is not difficult to understand! To return to our oarsman "A." His heart-beats are increased very greatly by his 20 strokes to the minute for a few days; but soon with as little exertion he rows at the rate of 30 strokes—the machinery accommodates to this form of exercise. But all the

while if he be not beyond the age when growth is impossible, his muscular system, his lungs and his heart, are enlarging. The heart enlarges, of course, for it is a very complicated interweaving of muscular fibres. Now by an opposite course—the heart is enfeebled and the lungs diminish in size. The chest becomes cramped—deformed and actually flattened, by want of exercise and through a faulty position, perhaps. Some of these exercises involving deep and continuous respiration, in which so many men of the desk and sedentary occupations generally now engage, are admirable counteractives to the evils of such occupations.

If the foregoing explanations have rendered the subject clear, the conclusions about to be drawn will be at once acquiesced in, and the importance of our altering somewhat, indeed largely, our mode of education acknowledged. One other fact must be plainly set forth. Under ordinary conditions of rest, only a small part of the lung-capacity for air is utilized; so that the individual who sits from morning to night at a desk uses up much less oxygen than the labourer who toils in the open air, and more fully expands his lungs. The same holds of all who do not exercise vigorously. Perhaps no form of exertion so enlarges the chest and lungs as running. This appears from an inspection of the formation of the chests of animals that are fleet of foot, and as a matter of fact do run much, as the deer, grey-hound, race-horse, &c. Rowing is also very good, but the position is antagonistic, the only draw-back perhaps. It has the advantage, moreover, of developing all the muscles of the body, including those of respiration and of forced inspiration.

The following conclusions seem to be warranted by the foregoing facts.

(1.) Inasmuch as the development of the body is effected chiefly before

the age of thirty—and indeed before the age of twenty, in great part—it is clear that more time should be given to physical culture before that age than after it.

(2.) Special attention should be given to the highest possible development of the chest and its contained organs, as these organs are the great controllers of life.

Those who die of Phthisis (“consumption,”) have almost invariably ill-formed and small chests.

(3.) The present school hours (5-6 hours daily), are too long for all children below twelve years, to allow of sufficient time being spent in the open air. The writer is very glad to notice that this subject—the necessity of shortening school hours for the younger children, has had recently the able advocacy of Mr. Buchan, Inspector of High Schools. Fond parents are ignorantly, but surely, making early graves for their children by their urging the long hours, while our educators are equally surely, by favouring the system, garnishing their tombs. Would that the laity could be induced to study physiology, and that it were *practically* taught in all our schools.

(4.) Since in the sedentary, especially when numbers are crowded into one room for hours together, the lungs rarely are filled full of air; and, inasmuch as the air of school-rooms becomes more or less impure, some special precautions ought to be taken to counteract this evil during school hours; such as having the children rise, while the windows might then, without danger, be opened if some simple exercises were performed, as putting up and down the arms, and filling the lungs as full as possible with air. A short and lively song as a kind of physical exercise, and much more that each teacher can devise for his own class, might also be attempted.

(5.) Singing, as it necessitates deep

inspirations and expirations, is a good exercise for the chest. The pupils should stand and the air should be pure. The last period of the day is objectionable—the air is then vitiated.

(6.) The ordinary romping of the school yard, while it answers the purpose of filling the lungs, &c., is so objectionable from other points of view that it behoves all educators to study closely how to design modes of exercise and amusements that shall at once best develop the body, elevate the heart, and quicken the intellect. That teacher will also soon be appreciated by his class, who puts himself to this pains to accomplish what all youthful minds are set upon, thanks to nature—amusement—the oil of life.

(7.) That set of amusements from which running is wholly banished, must be extremely faulty; if girls would run more they would be obliged to alter injurious forms of dress; and there would be fewer namby-pamby creatures that only caricature the genuine woman. Besides, we would have fewer gossips of all ages, if it were the custom for girls to engage to a greater extent in physical exercises. The simple reason is, there would not be time for gossip, nor would there be that indigestion, nervous derangement, &c., that predispose all of us who are the subjects of them, whether male or female, to think ill of our fellows.

A certain Collegiate Institute situated near a fine sheet of water, has its pupils' and its teachers' boating clubs. The studious youths of this Institute have thereby borne much hard work as have also, the teachers who are by the way among the cheeriest, uncomplaining set of men, notwithstanding the pressure of the awful “Intermediate,” one could desire to meet. A word to the latter.

The wisdom of teachers taking a solitary walk is questionable—a soli-

tary run is better. Why not take a dog if no human companion is to be found? The companionableness, if not the naturally sportive mood, of the animal, would divert as well as give tone to the mind.

The time has come when the teachers, the educators of all classes, must instruct and lead the public in the matter of physical development. We do not live to get riches, or to get fame, we live to develop the nature which is ours to its fullest; and be it soon or late we shall suffer the penalty of neglecting to observe nature's inexorable decrees. If parents do not see that their children are suffering by too much of school life, as it is, let the teacher give the family physician a hint. Great is the responsibility devolving at the present time on the medical profession. It would be well if teach-

ers could enlist their interests more fully in the matter of education; get an expression of opinion from the whole profession in a town or country, and the public must see that there is something wrong. The subject might be brought before the medical societies that exist in almost all sections of the country. All medical men must know that five hours' confinement (imprisonment), in a public school is too much for a child of five years. Well then, let the medical men as a body be asked to express an opinion, and something will come of the matter. We now repeat *sana mens in sana corpore*; practically we ignore it, especially in cities; in the country the evil is counteracted in some degree by circumstances.

DEFECTS IN OUR TRAINING SYSTEM.

BY J. B. SOMERSET, INSPECTOR PUBLIC SCHOOLS, ST. CATHARINES.

NO apology is needed for the title of this paper; for, however marked may be the improvement of late effected in the preparation of teachers for their work, the arrangements for this purpose are universally recognized as being hampered in their operation by the defects incidental to all newly introduced systems, and by the crudeness of the first efforts to give them effect.

The introduction of the system of County Model Schools is, without doubt, the most important step taken in educational reform: since the change in 1871; and it will be more marked in the future as an era in educational progress, when its administration is improved and its results developed,

than it is now; but there is a danger that in our self-congratulation at its recognition as a part of our school machinery, we may become blind to its defects or apathetic in regard to their removal.

In view of this, a consideration of the legitimate aims of a County Model School, and the means of their realization, will not be out of place.

Generally, a Model School is intended to accomplish for a teacher in training, (1) the exhibition of the proper method of performing every department of school-work by that pursued by the teachers of the school; (2) the tracing of the method to the psychological and physical conditions in youth that have suggested its adop-

tion, in order that he may be made acquainted with principles capable of adaptation to various circumstances, and not mistake a mere slavish imitation of form or manner for the possession of a knowledge of the real art of teaching; (3) the affording him of such opportunities for putting these principles into practice under proper supervision, as may enable him to undertake the responsible charge of a school without excessive awkwardness or embarrassment, and (4) the provision of such incentive or stimulus to exertion and industry, while in attendance, that the student will be compelled to regard high attainments in this respect as of equal importance with a high standing in the non-professional subjects of examination.

No argument is needed for the proposition that any Model School, failing to realize these aims or any of them, fails to accomplish the results to be expected from such an institution; nor can it be asserted that the requirements are too high, or that the results are impracticable with the appliances at command, or of easy provision. That our County Model Schools have not yet attained to this standard, especially in regard to the requirement last mentioned, is as little matter for surprise as discouragement, taking into account the short time they have been in operation; nor is it any reflection on the ability or faithfulness of those who assumed the responsibility of their management without specific preparation for such work, and almost without notice. But the duty once assumed, it becomes imperative on those charged with it, to use every means to perform it with intelligence and care, and to prevent it from sinking into a mere perfunctory compliance with a legal form. That there is danger of its doing so is apparent to any one who has observed the

working of these institutions, and from causes equally apparent, yet happily easy of removal. To a consideration of these causes and a few suggestions as to the means of their removal, we will now address ourselves.

The principal departments of school work to be exhibited to the teacher in training during his attendance at the Model School, are, (1) organization; (2) government; (3) intellectual cultivation; (4) moral culture, and (5) physical development. A difficulty at once appears here in making the student familiar with the organization of a rural school, which in nine cases out of ten is the sort of school he will first assume charge of, while the school to which he looks as his model, is graded into at least three divisions. An attempt is sometimes made to overcome this by taking pupils from each grade into one room; but the similarity between these selected pupils and the heterogeneous collection that will present itself to a teacher just taking charge of a rural school, is but slight; besides the *unreal* nature of the classification militates against the impression it is designed to make. Plainly, the organization of a rural school is best exhibited in a rural school; and a series of visits to such in the vicinity by the students under the direction of the Model School master, would accomplish this object; but here we are confronted by another difficulty, viz.:—The time of the head master being usually claimed by a class of pupils in his own school, he has no opportunity to make such visits, nor even to supervise with satisfactory thoroughness, the practice of the students in teaching his own pupils. This obstacle to efficiency cannot be allowed to stand without injury to the interests of the students, nor can it be removed without neglecting the pupils of the school, unless some

provision is made to supply a substitute for the head master during his supervision of the teachers in training. The question as to what additional grant, if any, should be made to secure such a change, is, however, purely one of departmental management.

In exhibiting the proper method of imparting instruction to pupils, there is but one defect claiming notice, and it is one that has grown out of a previous lack of training facilities. It is only to be expected that the comparative absence of systematic training in former years, should now bear fruit in the instruction of the Principal being contradicted in the practice of some of the assistants—an anomaly that cannot long survive the present facility for the obtaining of correct information.

The cultivation of the moral and physical nature is only too much neglected, at the present time, in our best schools; but it is not too much to expect that the training in these schools will enlighten teachers on the importance of the supervision of pupils in the playgrounds, and of the proper ventilation and heating of the school-rooms, the neglect of which is fruitful of serious evils.

But it is the lack of a definite incentive to the attainment of professional skill that presents the most serious bar to the success of our Model Schools; and this lack is equally felt in the training of Provincial teachers. It may be advanced that the passing of the professional examination at the close of the Model School session being made conditional on the granting of a certificate, meets this want; but on the other hand, it is undeniable that students, almost universally, regard the non-professional as the tug of war, which once passed,

there remains the professional course to be gone through with, but nothing more to *work for*. There is no reason why professional excellence should not be a large factor in the qualification required for a higher grade of certificate, and there are strong reasons why it should exclusively determine the fitness of a candidate to receive grade A of any class. At the present time, an experienced teacher, with grade B, is generally preferred to one with grade A, whose experience is limited, simply because the lengthened experience is accepted as a guarantee of professional ability; but were the higher grade understood as indicative exclusively of a higher degree of skill in teaching, it would become at once a guide to trustee corporations in their choice of a teacher, and an object of ambition to teachers themselves, much more tangible than it is.

Again, the number of teachers holding third-class certificates in the Province is 4495, out of a total of 6468, or over two-thirds of the whole number. Can any one doubt that, of this large number, there are some whose industry or talent raises them above the dead level of their brethren, and should there not be some means found of distinguishing and rewarding merit in such cases, even at the very opening of their professional career? The division of third-class certificates, in grades A and B, is not now advocated for the first time for this reason; but their classification in this way, by the results of the professional examination, while accomplishing this object, would also supply a stimulus to our County Model Schools that would largely increase their usefulness, of which the whole Province would reap the benefit.

THE DEPARTMENT AND THE SCHOOL BILL.

BY THE EDITOR.

IN the late war the Turkish troops, it is said, were instructed never to fire upon a Russian General, lest he should unfortunately be replaced by a man of some military capacity. In criticizing the New School Bill, and Mr. Crooks' administration of the Education Department, we own to some such feeling of discretion as suggested the order given to the Turkish soldiery, but from the dread—not that the Minister would be replaced by an officer of greater capacity, for Mr. Crooks is well-endowed in that respect,—but that he might be succeeded by a man of much less political discretion and instinctive fairness. It will be understood, therefore, that if we abstain from any sanguinary engagement with the Minister in the arena of criticism, it is from the motives hinted at, and not because we feel altogether satisfied with the hon. gentleman's administration of his office, or that we unreservedly acquiesce in the benefits claimed for a political head of the Education Department with the machinery which the new administration has necessarily, or unnecessarily, called into existence.

It is something, however, to have secured caution and discretion in the conduct of the Education Office, and a conscientious purpose to administer the affairs of the Department on fair, if not broad, lines of political neutrality. We may quarrel a little with the caution, and perhaps infer sometimes that there is more of vacillation than of wise timidity; but

allowance has to be made for perplexing problems of management, as well as for the erratic and often uncontrollable course of occasional experiments. At such times one may sigh for the trenchant and reliant vigour of the Minister's predecessor in office, and for the generally easy faculty of "solving the unsolvable" which characterized the administration of the "Venerable Chief." But Dr. Ryerson, it will be remembered, was absolute dictator in educational matters, and much as he loved the official title, *le Ministre d'Education*, the responsibility to the House and the country, involved in holding Mr. Crooks' portfolio, would not, we fear, have consorted well with the good Doctor's notions of official autocracy.

But recalling to our mind's eye the kind, burly, old incumbent of the office in the days of the Superintendency, the many changes that have taken place since his superannuation come like a series of crashing transformation effects in some realistic play on the stage. The most radical of these changes, of course, was the abolishment of the Council of Public Instruction and its replacement by that Witenagemot, the Central Committee, composed of the *crème de la crème* of the Inspectorate. The wisdom of that experiment of Mr. Crooks we do wish ungraciously to call in question, but the abrogation of a Council composed of men of the character, ability, and impartiality of the gentlemen who were doing such herculean work for education at the time

of its abolition makes the educational critic severe in his demands upon the men who replaced the Council, and upon the machinery that attempted to continue its work. If we may trust the indications of dissatisfaction with the Central Committee, manifesting themselves on many sides, the Minister is not to be congratulated on the wisdom of that change; but there are other grounds upon which public dissatisfaction with the substituted machinery is also readily comprehensible—not the least of these being the non-representation on the Committee of Public and High School Masters—an element which most fairly and desirably had its representation in the latter days, at any rate, of the old Council,—and the equally practical ground of disapproval of the change, on the score of expense. Not to speak of other mutterings abroad of discontent with the work of the Central Committee, particularly in regard to text-book selections and authorization, the two latter objections we have referred to are of serious moment, the one as it concerns a large body of men whose position and interests entitle them to be consulted on educational affairs along with any favoured men in the Inspectorship; and the other, as it seriously affects the pockets of the people who are already heavily paying for the system upon which the schools are governed. The non-representation of the working branch of the profession, under the new *régime*, would not be a matter open so seriously to objection were it not that there is an evident disposition still further to ignore this element, and to deprive High School Masters, at any rate, of the privileges they have hitherto enjoyed. Section ten of the new School Bill, as originally introduced in the House, illustrates this tendency, and it is a tendency not

calculated to inspire the profession with confidence in the friendly interest and purpose of the Department. Those who fear the intoxicating effect upon High School and Public School Masters, of their possessing a wise degree of discretion and privilege, touching matters in which they are most concerned, should stand for a while in their shoes, in order to recognize the degradation of pursuing the profession as mere machines, while deprived of that best source of inspiration to any high professional accomplishment in a man—a well regulated *amour propre*. But the question of expense, in substituting the Central Committee for the old Council, is no trivial one, as the Public Accounts for 1877, the last financial blue-book issued, indicates. From that volume we gather, that, for the year, the Central Committee cost the country about \$10,000, inclusive of fees as examiners, rewards for reporting upon text and prize books, for travelling expenses, and the inevitable disbursement for contingencies. This is exclusive of the salaries paid to those of the Committee who are Public School Inspectors, by the city or municipal corporations employing them, and it is also exclusive of the salaries drawn by the three High School Inspectors who, no doubt deservedly enough, divide some \$9,000 among them. About \$1,400, it is proper, however, to say, is represented by the celebrated Central Committee Investigation of last winter, a barren expenditure which the dignity and discretion of the Committee, had these virtues been exercised by all of its members alike, would have rendered unnecessary. Still the total chargeable in the public accounts to the eight gentlemen composing the Committee, is a large one; but, of course, the total \$18,000, or so, expended under this head, is relatively a small amount in the aggregate half million

or more which represents the annual vote for Education.

While on the subject of figures, it may not be amiss to say a word or two in regard to other expenditures on educational account which may seem to require the Minister's careful scrutiny, with the view to a possible saving. The amounts which particularly challenge attention are: 1st. the large annual charge for maintaining the Normal and Model Schools of Toronto, and the Normal School at Ottawa, the combined cost of the former being \$26,000, and of the latter, \$14,000, sums which seem unduly large for the limited work these Normal Schools now undertake to do. As we understand it is claimed that the Toronto Model School is almost self-sustaining, in consequence of its large revenue from school fees, the \$40,000 charged in the Public Accounts against these Institutions, would, therefore, seem to be exclusively spent on the two Normal Schools, which, if this view be correct, raises the annual cost per pupil, in these Institutions, to an excessive amount.

The annual outlay, of some \$4,000, on the Educational Museum and Library, is another charge on the Department, in which, we think, a large saving might be effected. The practical educational uses of the Museum we have always considered very slight, though its ornamental attractions are, no doubt, considerable. If the Minister would spend the annual sum in making additions to the Toronto University Museum, or for increasing the equipment of the School of Practical Science, where its disbursement would be of substantial service to technical education, we cannot but think that he would make a better use of the money.

The large sum of \$60,000, and similar amounts annually appropri-

ated, for Libraries, Prizes, and Apparatus, also recurringly challenge criticism, as an unwise expenditure by government, in interfering with legitimate trade, and in violating the fundamental principles of economic science. We should have hesitated to advert in these pages to a subject so provocative of trade and Departmental wrangling as this, did the matter not present itself in the new School Bill with an additional emphasis of hostility towards the Book trade, in the cancellation proposed by the Bill, of the privilege to compete with the Government institution in the supply of Books and Prizes to School Corporations, which the trade has for some years enjoyed. We do not dwell on this matter further than to read in the contemplated provision of sub-section 16a of the Bill, a confession of the Depository's failure successfully to compete with the booksellers, as only this can explain the practical withdrawal of the concession to School Trustees to make their purchases through the Book trade, with the privilege, at the same time, of sharing in the Legislative grant. The withdrawal of the privilege, it may be said, however, is rendered necessary by the depressed state of trade, and the desire, on the part of the Government, to revive the brisk times of the monopoly régime, so that "stocks" may be more rapidly reduced at the Depository, and Government bookselling appear to better advantage. As a device of trade-enterprise, one may commend the proposal, but we should have thought that the lessons of the times would have pointed to measures of economy and reform, which have always been the war-cry of Mr. Crooks's party, rather than to the disregard of both in the maintenance of the institution. If the Minister be nevertheless serious in pursuing economy in the adminis-

tration of his Department, we trust that he will see in this Depository branch an inviting field for, at least, a gradual curtailment of its expenditure, and the final abolition of the bureau as a serious burden on the public purse, and an unnecessary adjunct to the Education Office. To see this matter in its true light, the Minister has only to apply the commercial principle of proportion of cost of management to the gross business annually turned over, adding to the \$8,000 of yearly salaries and contingencies of the Depository, those items of rent, light, fuel, taxes, interest on capital, and allowance for depreciation of stock, which enter into all business undertakings. If this be done, we vouch for it that Mr. Crooks, so far from entertaining the delusion that the Government can advantageously undersell the legitimate trade in this department of commerce, will, at any rate, be ready enough to get rid of his Book Store, and to confine the energies of his department to its proper educational work. We might illustrate the advantage of thus narrowing the operations of the department by referring to the gain to the public purse in leaving to private enterprise the publication of educational periodicals, though, of course, we are not unmindful of the service long rendered by the Government *Journal of Education* at a time when such an enterprise could not be looked for as the product of private speculation or of individual philanthropy. With a similar reservation, we frankly own to the service rendered to the country by the operation, in the early days of its existence, of the Education Depository. But now-a-days the paternal system has no occasion to be carried further than that in which grants and subsidies find their helpful, legitimate field of work; and such educational influences as books and professional magazines exert, and the machinery of

art, science, and general schools supply, may, in the regular form of parliamentary appropriations, be properly made the objects of the beneficence of a liberal and appreciative Government, but without colliding with any interest or concern of trade.

In the foregoing matters upon which we have ventured to express an opinion, we do not, of course, expect the Minister of Education to value our criticism at more than its worth; far less do we hope that he will forego his own prepossessions at our bidding, or at that of any critic of his department. We can only express the hope that the sincerity of our wishes for the efficiency and good repute of the administration of educational matters in the Province, will atone for any temerity of which we may be deemed guilty in the remarks here made. The single motive we have—and we have no other in our present criticism—is to maintain and increase an intelligent and friendly interest, on the part of the public, in the educational affairs of Ontario, and to desire for Mr. Crooks' administration that it shall be precious in the eyes of the profession. The Minister has it in his own hands to secure these desirable results, and he will best do so by wisely balancing, in the administration of his office, the benefits of innovation and experiment against the advantages, so favourably apprehended in everyone's experience, of "letting well alone."

The pertinency of this remark will be the more obvious as we now turn briefly to consider the new School Bill, and to offer some criticism upon its provisions, in so far as the present stage of legislation in regard to it will justify our making the attempt. But as we write, the Bill has been withdrawn for ministerial re-hatching, for which the sterile state of politics in our Local House doubtless affords adequate reason, though, in the meantime, its reconstruction ren-

ders purposess any serious attempt to consider it as it was first submitted. Whatever transformation it may undergo ere its presentation again to the House, however, there are one or two provisions which we fear are likely to reappear in the Bill,—provisions which we conceive to be so unwise and unnecessary that we feel called upon now to comment briefly upon them. The more objectionable of these provisions is that contained in section 25 of the original Bill, which purposes to place a veto in the power of Municipal Councils, in opposing the demands of Public and High School Boards for school purposes, unless agreed to by a two-thirds' vote of the Council. Now it is difficult in regard to the Bill as a whole, to conceive on what ground of necessity Mr. Crooks asks for legislation on School matters this session. It is more difficult still to understand, in regard to the section we have referred to, why he should propose so unwise a change in the law. "Letting well alone" is a principle of negative excellence which a Government that prides itself upon the negative virtues of Mr. Crooks's colleagues should have well learned. To depart from the principle, however, in the instance before us, and to bring educational affairs more closely within the malign influence of politics, is surely a step which the Minister cannot have well considered. We had credited Mr. Crooks with a high degree of administrative discretion, and were encouraged to hope that he would rigorously have kept school matters at a long arm's length from politics; but it requires no political divining-rod, if not to discern the political influences that have shaped this new provision in the Bill, at least to foresee its evil effect, particularly on High School affairs. If any checks are considered necessary in the local management of these

institutions, it is only reasonable to ask that they shall be such as will repress their creation and limit their number. But once established, their Trustees should surely have full power to make them efficient. Nothing can be more suicidal, to our thinking at any rate, than this clause in the Bill; and we would fain hope that no one wishing well to education, and desirous to preserve it from the ignorant, obstructive, and unsympathetic manipulations of ward politicians, will encourage the Minister's proposal to give such power to Municipal Councils as the clause contemplates. And let not the seeming fairness of the two-thirds vote mislead any one in the matter; for there is a delusive equity in this, and the opening of the door to party machinery to contest the demands of School Boards upon every occasion that might present itself. The claims of School Trustees in regard to this matter, we feel sure, may be safely left to the discretion of those composing the Boards, and we are therefore convinced that the proposed concession to Municipal Councils is irredeemably bad, as any change must be which would bring the two bodies into collision, to the detriment of education, or tend to introduce political strife into the subject of School-rate levies.

In the next section, number 26, of the Bill, there is an element of unfairness in placing the whole expense of the examinations of entrants from the Public into the High Schools, upon High School Boards; but this and other matters in the Bill we have left ourselves no space to dwell upon. Briefly it may be said, however, that, as it is as much to the interest of Public Schools to be relieved of their advanced pupils, so it is, presumably, an object for High Schools to receive them. Hence the question of expense incurred in the examinations, if not

left undisturbed by the Bill, should be settled by the respective Boards sharing the cost between them. There would be equity in the latter course: there is none in that which the Bill now proposes.

Of the other matters in the Bill we can speak with little confidence until it returns in an amended shape before the House. Previously, when under discussion, the provisions which engaged the interest of the members were, as a rule, those of minor moment, and the country, through its representatives, had no opportunity either to influence legislation on the important points of the Bill, or to be made much wiser by the criticism of Parliament. The early sections, on the procedure in electing School Trustees, of course brought on an inevitable debate in regard to the time and manner of elections; but though this gave opportunity for party by-play, on either side of the House, in discussing questions of little political significance and of less educational value, the aid given to practical school legislation was of the most meagre kind. The least pleas-

ing feature of the discussion was the discovery of the uncertain ground upon which the Minister stood in regard to the Ballot and its adoption in both Public and Separate School elections. In this, as in all other matters of school administration, we should like to see Mr. Crooks absolutely free to shape and follow his own course. While uniformly tolerant towards those of another creed whose separate school work demands, and should receive, full recognition and ample support from the Minister, his wise duty, at the same time, is to hold himself scrupulously aloof from sectarian intrigue, and above all, from that worst phase of it which we may call sectarian divisional intrigue. Equally vital is it to the well-being of our educational system that the Minister should close his ears to the siren voice of his own political friends, and, in the administration of his department, continue to walk in that safe, beaten track of honour and honest purpose, which we believe Mr. Crooks seriously endeavours to follow.

ERRATUM.

At the end of the seventh line from the bottom, second column, of page 159, add "not" after the word "do."

TWO SONNETS ON SCIENCE.

I.

THERE was a time when Science, blind and bound
 Like to a miser's handmaid whom rough hands
 Of midnight robbers seize, upon the ground
 Lay prostrate. Eager questionings, commands,
 Torturers' threats, the red alembic's flame,
 Assailed her fortitude ; no fiercer greed
 Was their's who made the Aztec monarch bleed,
 Or sullied for Potosi's ore the fame
 Of brave Pizarro. On her sullen brow
 No sign of blanching fear was seen, her voice
 Stirred not the air, save when in mutt'rings low
 Dark hints she dropped of what she might have told
 Were not their hearts set on so base a choice,
 Had not their quest been narrowed down to gold.

II.

Erect, and with an eye that scorns to droop
 Although the sun full-fronted were opposed,
 Her perfect limbs, that know not how to stoop,
 In stateliest attitude of rest composed,
 She standeth now,—and to her chosen band
 Of followers who, with single hearts and true,
 Have wrought out her behests, as wages due
 She scattereth riches with a lavish hand.
 One man has power to bend the bolt of Jove
 Slave to his errands, yet another sifts
 From worthless nothings, tints that rainbows wove ;—
 Still are these words wrought on her diadem,
 " Love me for mine own sake, not for my gifts,
 Nor kiss my mantle for its golden hem."

CONTRIBUTORS' DEPARTMENT.

MR. EDITOR,—Would you kindly answer the following queries.

- (1.) Where is Lithuania?
- (2.) What country or countries do the Samoiedes occupy?
- (3.) Where is the river Ufa?
- (4.) Give the meanings of the following words: Piombi, Pozzi, "Fauces," vast region of *Névé*. Springs and *Fumaroles*.
- (5.) What is meant by the warm *Miocene times*.
- (6.) Who was Münchhausen?
- (7.) What is the meaning of *potentialities* in your article in the February number?

I am, yours truly,

JOHN CONNOLLY.

1.—*Lithuania* is that portion of Central Europe forming the N. and N. W. part of the ancient Kingdom of Poland, and now mostly comprised in the Russian territorial administrations of Vitebsk, Vilna, Grodno, and part of Prussia.

2.—The *Samoiedes* Country comprises all the N. E. parts of Russia and N. E. Siberia, between the White Sea and 110° E., with the estuaries of the Petchora, Obi and Yenisei. Keith Johnson says the inhabitants are mostly wandering tribes.

3.—The *Ufa* is a river of European Russia, which, rising in the Ural Mountains, flows S. W., and after a total course of 400 miles joins the Bielaya near the town of Ufa.

4.—Answers to these queries would have been more definite had our correspondent indicated where he had met with the words. *Piombino?* and *Piozzo?* are towns in Italy. *Fauces* means a narrow inlet, but has medical, botanical, and other technical meanings, for which see some large dictionary. *Vast region of Névé*: We do not know whether the *Neva* is meant here, which, though a short

river, is a large one, and drains the great Russian Lakes into the Gulf of Finland. *Fumaroles* are openings in volcanic districts through which smoke and gaseous matter issue.

5.—*Miocene* means, etymologically, less recent, and is a geological term applied to the middle division of the tertiary strata.

6.—*Münchhausen* is the fictitious author of a book of travels, containing the most extravagant and mendacious stories. The name is believed to be a corruption of the family title of a German officer in the Russian service.

7.—By *Potentialities* we meant latent powers for good.

We direct our correspondent to the editorial note on School Libraries and Works of Reference, in the present number.

Editor, C. E. M.

MR. EDITOR,—On reading the article entitled "Training and Training Institutions," I was forcibly impressed with the truths inculcated therein, but one especially appeared to me all-important, viz. "The instruction of teachers in training in our Model Schools in the proper method of conducting an ordinary rural school with one teacher." I, therefore, request some of your readers to insert in your valuable Monthly, a thorough practical "Time-table" for such a school, with an average attendance of fifty pupils, and consisting of five different forms, as I find it very difficult to construct one containing all the subjects so as to make the necessary progress which is looked for at the "semi-annual examinations." Knowing the importance of this great desideratum, and that a practical one will be *pro bono publico*, I request the insertion of the above.

I am, yours truly,

Goderich, Feb. 22, 1879. CHAMPETRE.

MR. EDITOR,—If I have just passed the Intermediate Examination can I pass the examinations next July for a first-class certificate? Am I forced to attend one of the Normal Schools in order to be eligible as a candidate for a first?

Yours, etc.,

M.

The regulations on this point are quite explicit, and are as follows:—

A candidate for the non-professional examination prescribed for first and second-class certificates respectively, may present himself at any time when an examination is being held; but no certificate of any class will be granted until all the conditions indicated have been satisfied.

The conditions upon which first-class certificates are to be granted are as follows:—

(1.) In order to be qualified to receive a first-class certificate, the candidate must have passed the prescribed non-professional examination for first-class certificates.

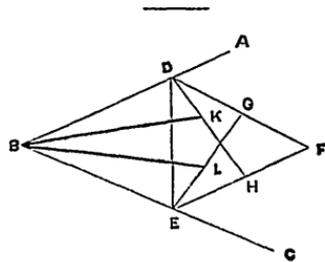
(2.) He must also have attended for one year at a Provincial Normal School, after obtaining a second-class certificate, and must pass an examination on the work of the session, together with any other subjects connected with the practice of teaching which the Minister may appoint.

(a) Before being admitted to this examination, the candidate must receive a certificate from the Principal of the Normal School that he has, throughout the session, paid satisfactory attention to his duties, and that he is, in the opinion of the Principal, a fit person to be allowed to go up to the examination.

(b) Any persons who have taught successfully for two years on a second-class certificate, and have passed such examination as the Minister may prescribe, to test their fitness to teach on a first-class certificate, are exempted from attendance at the Normal School.

He must produce evidence that he is of good character.

From this it will be seen, that attendance at the Normal School, although advisable, is not obligatory; nor is it necessary for a candidate to have taught a school before passing the non-professional examination prescribed for a first-class certificate.—ED.



TO TRISECT A GIVEN ANGLE.

Let ABC be the given angle.

Mark off equal spaces BD , BE . Join DE , and on it describe the equilateral triangle, EDF . Bisect DF , EF in G and H . Join HD and GE . Make $HK = HF$ and $GL = GF$. Join BK and BL .

The angle ABC is trisected by the lines BK and BL .

Prove that the above construction is wrong, or demonstrate its correctness.

G. S. MITCHELL,
Brockville.

Owing to want of space, the Solutions to the Problems appearing last month, from Mr. W. J. Robertson, though received, will have to be deferred publication until our next issue. We have to acknowledge Solutions for the same problems from Mr. Francis, Collingwood.

Correspondents sending us problems or solutions, should take care that they are clearly and legibly written, and on one side of the paper only.

ARTS DEPARTMENT.

EXAMINATION PAPERS OF LONDON UNIVERSITY, JANUARY, 1879.

[NOTE.—We print this month part of the Matriculation Examination Papers, set at the University of London in January last.—ARCH'D. MACMURCHY, MATH.ED.C.E.M.]

The Students were allowed three hours for each Division.

ENGLISH LANGUAGE.

[Not more than *ten* questions to be attempted, inclusive of the exercise in dictation.]

1. Write out and punctuate the passage read by the Examiner. Underline the words which are *not* of Latin origin.

(N.B.—Candidates are reminded that they are not allowed to make a fair copy of the exercise in dictation.)

2. Show the position of English among allied languages. What consonantal changes have been observed to prevail between cognate words in English and any other of these languages?

3. What is a vowel? What vowel sounds exist in English? Show particularly how they are all expressed by means of the six Roman vowels.

4. From what languages, and at what dates, have we received the following words?—*Orange, receive, street, bosh, boom, chintz, kiln, fetish, die, armadillo, concatenation, chess, chagrin, pool, carouse.*

5. Discuss and illustrate all methods of distinguishing number in English nouns. How has the use of the suffix *s* as a sign of plurality been accounted for?

6. Account for the letters in Italic, in name, these, those, passenger, sovereign, wettest, cities, potatoes, sceptre, sceptic, handiwork, righteous, tomb, could, our.

7. What cases had nouns formerly in English? Which of them still formally exist? Of how many of them can the force still be expressed by the simple form of the word without a preposition? Give full examples.

8. What was the ancient form of the feminine gender? What traces remain of it? How has it been supplanted? Discuss the meaning and origin of the termination *-ster*.

9. Classify adjectives irregularly compared. Give the positive and superlative of *more, farther, former, utter, hinder, less, rather, further, latter, nearer*, and also what you know of the history of each.

10. Explain the construction of *self*. What part of speech is it? Trace its history.

11. What are weak verbs? Classify *bring, sing, toke, seek, teach, set, bleed, cat*, as weak or strong verbs. Give reasons in each case, and call attention to peculiarities.

12. What part is taken by the verb *have* in conjugating English verbs? Explain the process by which *have* came to be so used, and discuss the following:—*I have a letter; I have written a letter; I have come to post it; the post is gone.*

13. What are the different uses of the verb *to be*? From how many verbs are the parts of this verb formed?

14. Classify adverbs (*a*) as to the ideas they express, (*b*) as to their origin.

15. What are verbal prepositions? Give six examples, and show how they come to be used prepositionally.

16. Correct or justify the following expressions:—

(a) I am verily a man who am a Jew.
— (b) Too great a variety of studies distract the mind.

— (c) Who do you speak to?

— (d) The river has overflown its banks.

— (e) Man never is but always to be blest.

(f) Neither our virtues or our vices are all our own.

(g) That's him.

(h) Many a day.

(i) I expected to have found him better.

(k) I am to blame.

ENGLISH HISTORY AND MODERN GEOGRAPHY.

HISTORY.

[Not more than *eight* of these fourteen questions are to be answered.]

1. Mention the more important Anglo-Saxon Kings from Egbert to Edward the Confessor, assigning the exact or approximate dates to each.
2. What were the difficulties William I. had to encounter before the Conquest of England was completed?
3. State briefly the relations of the Norman Kings with the Church, and their results on the sovereign and ecclesiastical power.
4. Sketch briefly the Reforms introduced into the Administration of Justice by Henry II.
5. Describe the circumstances under which Magna Charta was obtained. Mention the personages who were most prominent in demanding it from the King.
6. What were the Legislative Improvements introduced by Edward I.?
7. Give the particulars of Jack Cade's Insurrection, and compare it with that of Wat Tyler.
8. Give a list of the Tudor sovereigns with the dates of their accession.
9. What is meant by the Royal Supremacy? How was it developed under the Tudors? How was their policy in this respect favoured by the peculiar circumstances of the times?
10. By what right did James I. ascend the throne of England? Who were his chief supporters? Who opposed his accession? Give a brief account of his personal history before the death of Elizabeth.
11. Through what causes was the influence of Parliament developed in his reign and that of his successor?
12. What was the object of the Solemn League and Covenant? By whom was it introduced, and with what results?
13. Mention the parties, civil and religious, into which this nation was divided during the Civil Wars, and their more eminent leaders;

showing in what points they differed from each other.

14. How were the great questions by which this nation was agitated during the Stuart reigns settled at the accession of William and Mary?

GEOGRAPHY.

[*Two* of these questions *must* be answered, but not more than two.]

1. A native of Lancashire intends to settle in Chicago (Illinois). Describe his route from the point he sets out from to the place of his arrival.
2. Describe exactly the relative positions of these places:—Surat, Benares, Allahabad, Delhi, Mooltan, and Lahore.
3. Draw a map of Turkey in Asia, west of an imaginary line passing from Aleppo to Sinope.
4. Describe the course of the following rivers:—The Rhine, the Danube, and the Rhone; mentioning the chief towns situated on the banks of each river.

ARITHMETIC AND ALGEBRA.

[The candidates are requested to send up the *work*, as well as the result, with every question they answer.]

1. From the sum of the ordinary fractions, $\frac{3}{4}, \frac{2}{5}, \frac{1}{6}, \frac{5}{8}$, subtract the sum of the ordinary fractions $\frac{1}{2}, \frac{2}{3}, \frac{3}{4}, \frac{5}{6}$, and exhibit the result as an ordinary fraction in its lowest denomination.
2. From the sum of the repeating decimals $\cdot 1234$ and $\cdot 1234$ subtract twice the repeating decimal $\cdot 1234$; and exhibit the result in the form of a decimal of similar character.
3. The first and last terms of an arithmetical progression are 1 and 6561, and the number of terms is 9; determine completely the progression.
4. The first and last terms of a geometrical progression are 1 and 6561, and the number of terms is 9; determine completely the progression.
5. Find the numerical value of the algebraical expressions $(x^3 + y^3) + 3xy(x + y)$ and $(x^3 - y^3) - 3xy(x - y)$, when x and y have the numerical values 5.5 and 4.5, respectively.

6. Show by any method that the algebraical expression

$$(cy-bz)^2 + (az-cx)^2 + (bx-ay)^2 + (ax+by+cz)^2$$

is divisible by $(x^2+y^2+z^2)$; and determine the quotient.

7. Show by any method that the algebraical expression

$$(x^2-yz)^2 + (y^2-zx)^2 + (z^2-xy)^2 - 3(x^2-yz)(y^2-zx)(z^2-xy)$$

is a perfect square; and determine its root.

8. Extract the square root of the algebraical progression $1+2x+3x^2+4x^3+\&c.$, to infinity, where x is a number less than unity, by the ordinary process, or by any other you may consider more convenient.

9. Find the numerical values of x, y, z , which satisfy at once the three algebraical equations $2y+3z-4x=25$, $2z+3x-4y=17$, $2x+3y-4z=12$.

10. Divide £66 7s. 6d. between 6 men, 7 women, 8 boys and 9 girls; giving each woman a fifth, each boy a fourth, and each girl a third, less than the share of each man.

11. A grocer, having mixed four kinds of tea, in the proportions of 3, 4, 5, 6 parts by weight, and at the prices of 3s. 2s. 6d., 2s., 1s. 6d. per lb. respectively, retails the mixture to his customers at x shillings per lb.; required the value of x that he should realize 25 per cent. on his outlay.

12. A mixed train of 700 passengers being supposed to realize to its proprietors the sum of £112 10s. as the gross proceeds of an excursion; assuming the class fares to be in the ordinary proportions of 4, 3, 2, and the corresponding receipts to be in the inverse proportions of 2, 3, 4 determine the number of passengers, and the fare for each class.

GEOMETRY.

[Candidates are requested to state the text-books on geometry which they have read for this examination. They are permitted to use all intelligible abbreviations in writing out their answers.]

1. Prove that in every isosceles triangle the bisector of the angle between the equal sides bisects the third side and is perpendicular to it.

2. Prove that a triangle is isosceles if the bisector of any angle is perpendicular to the opposite side.

3. Two of the angles in a triangle which is not given are known to be equal to two given acute angles. Show how to make with a given straight line an angle which shall be equal to the third angle in the triangle.

4. Prove that the sum of all the exterior angles of a Polygon of the ordinary form equals four right angles.

5. Assuming the truth of the proposition in the last question, prove that no Polygon of the ordinary form can have more than three of its exterior angles obtuse or more than three of its interior angles acute.

6. Construct a parallelogram which has two adjacent sides and the diagonal through their point of intersection equal to three given straight lines of finite lengths.

7. Prove that in any right angled triangle the rectangle between the hypotenuse and either part into which it is divided by the perpendicular from the right angle is equal in area to the square on the side adjacent to that part.

8. If a straight line be divided into two unequal parts, show by a diagram that half the sum of the squares of these parts is equal to the square on half the sum of the parts, together with the square on half their difference.

9. Prove that the two straight lines which join, either directly or transversely, the ends of two parallel chords of a circle are equal to one another.

10. If two circles touch at a single point, shew that the straight line (produced if necessary) which joins their centres passes through the point of contact.

NATURAL PHILOSOPHY.

[Not more than eight questions are to be answered.]

1. Define Stable, Unstable, and Neutral Equilibrium, and state the conditions of stability of a body resting on a horizontal plane.

2. A telescope consists of three tubes, each 10 inches in length, sliding within one

another, and their weights are 8, 7, and 6 ounces. Find the position of the centre of gravity, when the tubes are drawn out to their full length.

3. State the condition in order that three or more forces acting on a bar which is free to turn about a fixed axis may not produce motion about that axis.

A uniform bar, 2 feet long, and weighing 3 lbs. is used as a steelyard, being supported at a point 4 inches from one end. Find the greatest weight which can be weighed with a movable weight of 2 lbs., and find the point from which the graduations should be measured.

4. Show, by the aid of a sketch exhibiting the resolution of forces, *how* a ship can sail at right angles to the direction of the wind.

5. A stone dropped into a well reaches the water with a velocity of 80 feet per second, and the sound of its striking the water is heard $2\frac{1}{2}$ seconds after it is let fall. Find from these data the velocity of sound in air. [$g=32$.]

6. A mass of 6 ozs. slides down a smooth inclined plane whose height is half its length and draws another mass from rest, over a distance of 3 feet in 5 seconds, along a horizontal table which is level with the top of the plane, the string passing over the top of the plane. Find the mass on the table.

7. The resultant vertical pressure of a fluid on the surface of a body immersed in it is equal to the weight of fluid displaced by the body. How is this proved by experiment?

8. A vessel shaped like a portion of a cone is filled with water. It is one inch in diameter at the top and eight inches at the bottom, and is twelve inches high. Find the pressure (in pounds per square inch) at the centre of the base, and also the whole pressure on the base. [A cubic foot of water weighs 1,000 ounces.]

9. How would you show that atmospheric air is heavy, like solid and liquid bodies;

and how would you find the exact weight of any volume of it?

10. Explain the action of the siphon. What are the conditions in order that it may work properly?

If the shorter arm of a siphon for emptying a vessel of water be 32 feet long, and a bubble of air occupy 6 inches of the tube at the end where the water enters, find the changes which the bubble of air undergoes while the process of emptying goes on.

11. State, and show how to prove, the Law of Refraction by plane surfaces.

12. An arrow, pointing towards the observer, is seen by internal reflection in an isosceles right-angled prism. Explain the difference in, and give a sketch of, the images seen according as the prism is three-sided, or a four-sided Wollaston prism.

13. Explain the formation of images by a concave cylindrical mirror. Find the relation between the distances of the two conjugate foci from the mirror. What is the position of the image of a point which is at the distance of the diameter from the reflecting surface of the cylinder?

14. What is meant by the real expansion and what by the apparent expansion of a liquid? Explain how to determine the apparent expansion of mercury.

15. State fully what information we gain from the statement that the specific heat of copper is 0.095, and that the latent heat of water is 80? What is the connection between the specific heat of a body and the rate at which it cools in a chamber which is kept at 0°C.?

16. Distinguish between a gas and a vapour. Is Boyle's Law obeyed by a vapour?

A vessel contains 2 cubic inches of water and 50 cubic inches of steam at 100°C. and at atmospheric pressure. What change will take place in the pressure when the volume of steam is diminished to 25 cubic inches, without any change of temperature?

TEACHERS' ASSOCIATIONS.

TEACHERS' CONVENTION, NORTHUMBERLAND.—The association for this county met on the 27th ult, in Cobourg, and continued in session two days, a large number of teachers being present, representing all parts of the county. The first session was merely routine. The second was opened by the address of the President, Mr. D. I. Johnston, who, with his well known ability, dealt with the general object of teaching. A discussion on "Language Lessons" followed, introduced by Mr. Parker, who, in a very lucid manner, showed his method of dealing with this important subject. His system was substantially that of Swinton, now so generally adopted. He was followed by Inspector Scarlett. Mr. Sprague, Principal of the Model School, Messrs France, Ash, and by the Rev. Dr. Nelles, President of Victoria University, all of whom agreed as to the superiority of the system, as compared with that formerly in vogue. "Object Teaching" was introduced by a paper on the subject from Mr. Sprague, H. M. Model School, who dwelt mainly on the importance of the means of cultivating the perceptive faculties, giving, moreover, some practical suggestions as to the mode of teaching. He was followed by Mr. D. C. McHenry, M. A., Principal of Cobourg Collegiate Institute, who briefly referred to the general principles which underlie the subject of object teaching, showing, also, the close similarity between accepted methods of teaching by sensible objects and the modes now adopted of teaching language lessons. Good suggestions followed from Messrs Dowler, France, McArthur, Slater, and Beatty.

At this stage of the Convention, President Nelles, Dr. Burwash, and Professors Wilson, Reyner, and Bain were elected honorary members of the Association. The evening was given to an elocutionary treat furnished

by Mrs. Taverner Graham. On Friday morning the subject of "Examinations" was taken up, introduced by Inspector Scarlett, and "Factoring" by Mr. Sprague. At 2 o'clock Dr. Nelles addressed the Association, dwelling mainly on the *interdependence* which subsists between the various departments of our educational work, the Public School, the High School, and the University.* He also referred to the various *methods* of instruction, the *inadequacy* of the teacher's remuneration, and the *nature* of the teacher's work, its relation to religious progress, to the state, and its *imperishable character*. The eloquent speaker was in one of his happiest moods, and his highly instructive address was received with frequent applause. Mr. J. M. Buchan, M.A., High School Inspector, then gave a very valuable address on "English Grammar and Literature." As was expected, a rare treat was afforded the Association. His excellent remarks were most cordially received. A few remarks from Messrs. McHenry, Scarlett, and Sprague, closed the consideration of this topic. Mr. Robinson of Belleville, then gave some valuable hints on the subject of penmanship. In the evening, Mr. Buchan delivered, to a highly appreciative audience, his excellent lecture on "Poetry and Politics."

The Association, before separating, passed a resolution appointing the Inspector and the President a Committee to secure as far as possible the general introduction throughout the county of the "CANADA EDUCATIONAL MONTHLY." Several of the members testified to the high merits of the journal, which was generally admitted as probably the best periodical of the kind on the continent, and in every way worthy of support. The next meeting will be held in Campbellford.

* This address, we have the pleasure to announce, will appear in our next issue, Principal Nelles having kindly consented to its publication.—Ed.

CONTEMPORARY OPINION ON EDUCATIONAL TOPICS.

[NOTE.—Under this Department it is intended to reproduce occasional extracts from the writings and speeches of contemporary statesmen, professional men, and publicists, on the subject of Education and literary and professional topics, which may seem noteworthy, and our space will enable us to preserve in the pages of THE MONTHLY.—EDITOR C.E.M.]

THE RIGHT HON. ROBT. LOWE,
M.P., ON MODERN *VERSUS* CLAS-
SICAL LANGUAGES.

Another thing to caution you against is, spending your time in reading metaphysics of any kind whatever. (Laughter.) I have wasted time in that way myself, and I think it is the greatest waste of time. It begins by assuming something that is not true, and ends by landing you in something actually absurd. I have spoken highly of our own literature, and I am bound to say that a person acquainted with that of England—which is the noblest, in my opinion, in the world—has in his mind a great store of thoughts and images, and has done a great deal towards giving effect to those faculties which have been bestowed on him. But there is a further question—knowledge of foreign languages. People are differently gifted in that respect, but if a man has a faculty for learning languages without difficulty, nothing will probably be more improving to his mind, or will conduce more to his prosperity, than the study of foreign languages, especially of the French language, one of the most beautiful vehicles of thought. It is so clear and lucid that all mankind agree with acclamation, when they communicate with each other, to speak it in preference to all others, because it is so much clearer and easier. It has a magnificent literature in every department; and as for the elucidation of science, I suppose that nowhere does science speak so clearly, beautifully, and plainly, as in the noble and splendid language of France. (Cheers.) It is not a very difficult thing to acquire it if

you have time or a little money. I would not advise you to depend on masters to teach you, but if you can afford the means of doing so, go into the country and learn it, not as a dead, but as a living thing, so as to enable you not only to enjoy its literature, but to understand and communicate with its people. That is a most enormous advantage; the good it does to acquire that, as a mere matter of advancement in life, it is impossible to exaggerate. The man who is furnished with a knowledge of the French and German languages has a means of raising himself in the world such as can hardly be conceived. I will give you an instance. There is a gentleman now who is at the head of the finances of Egypt—Mr. Rivers Wilson. Mr. Wilson was brought into the Treasury. He has made his own way in the world. I remember Lord Palmerston speaking with great admiration of the knowledge he had of French, and of the admirable examination he had passed. He is an accomplished financier, but there are a great many accomplished financiers in England—(laughter and cheers)—and he, holding high office under the Government as he was, has been selected from among all these financiers for the purpose of administering the finances of Egypt, not because there could not have been found other men quite as able as he to administer these finances, but because in addition to that financial ability he had this admirable quality, that he could speak the French and German languages just as easily as he could speak English. If it had not been for that I have no doubt there would never have been a

thought of moving him from the excellent position he held in England. I am told I am a fanatic in this matter, and am perfectly misleading people when I urge them to spend their leisure time in learning these languages. I am told it is not to the living languages you should look, but to the dead; that when Solomon said a living dog was better than a dead lion, Solomon knew nothing about it, and that a dead lion is much better than a living dog. (Laughter.) That is not my judgment on the matter. I do not believe that by teaching a man to know the languages which have long since ceased to be spoken, and which are the depositories of lore very curious and beautiful, but no longer of practical application—I do not believe that by turning a man's mind to these subjects, and turning them away from the subjects of the present day, you are doing the wisest thing that can be done for him. I have been told, however, by a friend of mine, who is a competent person to judge, for he is an excellent scholar and also a very good linguist, that there is a certain intellectual gymnastic, as he calls it, or cultivation, in the learning of the dead languages which makes them infinitely superior to the living ones, so that in the case of a man who has learned these dead languages his mind is able to control itself, which certainly is an extraordinary thing. (A laugh). If it is meant that learning a language is merely an exercise to brighten up one's faculties and to sharpen one up to enable one to do things, it is to me incomprehensible why we should take the dead languages for the purpose; because, if it is to be a mere intellectual gymnastic, the thing would be to take the hardest language we can find; and though Greek and Latin are very hard, I can find some things a great deal harder. Take for instance, the Sanscrit language. Here are eight cases to every noun, and three numbers; every verb has seven voices and ten tenses. (Laughter). If you want gymnastics, there you have them. Take another case, that of Russia. I won't attempt to go into that—(laughter)—but Mr. Wallace seems to me to have proved that you want a separate grammar for every word in the Russian language. (Laughter). But

there is another language that beats them all, the Chinese. It is of this admirable nature that there are about 30,000 words, and that every word has a separate character to represent it. Think what an intellectual gymnastic it must be, first to remember 20,000 or 30,000 words, and then to remember the letter to represent each word. (Laughter). As to dead languages, I scorn the idea; let us go to Chinese at once. (Laughter). That only shows the absurdity to which people may be led by association of ideas. In old times—I hope people are getting wiser now—we were taught to learn a quantity of Latin by heart. We did not learn it, and were flogged; we learned a little, and were flogged again; and then we learned a little more, and so we went on until by degrees we hammered through these things. People say youth is the golden time of life. It is not only golden itself, but it gilds other things. Those things most disagreeable and painful when we had to endure them, and least profitable since, when we look back on them—to the time when we were young, happy, and jolly—we think they must have been charming too. So people get an inveterate prejudice for these dead languages as against living ones, and having got this into their heads, they say it is an intellectual gymnastic to learn them. I venture to offer to you, therefore, this—that you are not to make yourselves unhappy if you do not know anything about Greek and Latin. You can get on very well without them; and, though when first taught they were an indispensable matter of education, you may now employ your time much better, even if you have a taste for languages, than in that way. In conclusion, the right hon. gentlemen urged his young hearers not to be disheartened by difficulties, but to remember Bruce's spider, and try again.

THE MARQUIS OF HARTINGTON AT EDINBURGH UNIVERSITY.

What, then, is the University doing for you, and what use are you making of the advantages which the University offers? It is my business to address myself rather to the students than to the authorities; and I shall not plunge

into the controversies between the old and new schools of University education. But as one who has a right to a voice on the Council of your University I will say this, that that seems to me to be a rational view of the functions of Universities which insists that they should move not only with but in advance of the times. Universities are maintained not only to teach what has already been discovered, but to aid in the search after new truths; not only to teach some one or two kinds of knowledge, but to put young men in the way of learning all that is to be known. They are maintained for the purpose of equipping young men for their different journeys through life with that knowledge of how to acquire knowledge which is indispensable to every one of active mind. Their business is not to drive away to other teachers those desirous of acquiring that information which is wanted for the practical work of daily life, but to impart it more fully and on a broader basis than teachers of mere detail can offer. We hear complaints, on the one hand, that Universities fail to give the education which is best adapted for modern requirements; and on the other, that they are sinking to the lower level of professional schools. But can they exercise higher functions than those of professional schools in the best sense? It is the province of Universities to offer the best professional and public education, and that is certainly not one that is either restricted to the sum of human knowledge as ascertained two hundred or fifty years ago, or one which is limited to the newly-acquired results, however important, of modern research. If I have digressed from the subject to which I was specially drawing your attention, it is because, in my opinion, the education or rather the groundwork of the education, which will fit you for eminence in a professional career is that which will also enable you to discharge that political service to the State which is your duty and your inheritance. Those studies which form and strengthen the judgment, which cultivate and discipline the imagination, which train the mind to think correctly and concentrate its energy, which, in short, develop the moral and intellectual qualities according to a scientific or philoso-

phical method, while they form the best foundation for the struggles of every day life, are equally adapted for the proper exercise of the political influence, both direct and indirect, of a good citizen.

MR. FREDERIC HARRISON ON BOOKS.

An evening lecture at the London Institution was recently delivered by Mr. Frederic Harrison, his subject being "The Misuse of Books." There were, he said, many ways of abusing books, but not many would follow the example of a college tutor he had known, whose life-passion was the buying and reading of books; but who always threw the leaves, as he read them, into the fire, as either worthless or already printed on his memory. The hoarding up of rare books of which we made little or no use was a more common foible; but the worst misuse of the art of reading he knew of, and at the same time the most widely spread, was the waste of time and attention upon utterly trivial productions, while leaving unread or forgotten the greatest and best books ever written. Even scholars indulged too much in promiscuous reading, although the longest life and the greatest industry would not enable a man to master a hundredth part of the books really worth reading. The great thing to know was what kind of reading to avoid. We should be as much on our guard against a chance book as against a chance companion. The enormous multiplication of books in the present day was not wholly favorable to mental growth, and for the last 300 years it had never been harder than now to select the right books to read. He argued at considerable length on the absolute necessity of confining our ordinary reading to the very best authors, whose books, he complained, were sadly neglected in these days. He endorsed in general a proposal which had been put forth for the guidance of the more thoughtful in the choice of books for constant use, not dwelling on the theory of education underlying it, but simply specifying the method on which it was framed. The authors comprised would not number more than between 100 and 200;

representing poetry, history, science, and religion. The first thing was to attempt to get together what was best in all the great departments of human thought, so that no part of culture might be wholly neglected or wanting. The next was to gather into one collection the greatest and best books in each department, and such only. Thirdly, the test of the value of the books to be what they say, not the manner of saying it. Save in the highest kinds of poetry, grace of form should not count. Lastly, the verdict to be given

by the common voice of mankind. Mr. Harrison added that as to the best hundred books or so, the world had long been pretty well agreed. He had provided himself with some such catalogue twenty years ago—of course, not as a bar to other reading. Such a list would serve to check indiscriminate wandering in the pathless fields of literature, and tend to remind us daily how many are the books of inimitable beauty and glory which we never even have taken into our hands.

“If then, in the future, we would fit men properly to cultivate nature, and not leave scientific research, as to a great extent we have done, to the hazard of chance, we must cultivate her own processes. Our earliest teachings must be things and not words. The objects first presented to the tender mind must be such as to address the senses, and such as it can grasp.”—F. A. P. BARNARD, *Pres. of Columbia College*.

“Education is, in this respect, narrower than it was three centuries ago. * * * Of the large number of men who have little aptitude or taste for literature, there are many who have an aptitude for science, which deals not with abstractions but with external and sensible objects; how many such there are, can never be known as long as the only education given at schools is purely literary.”—*Report of English Schools' Commission—1861*.

“We think that it is established that the study of natural science develops, better than any other studies, the observing faculties, disciplines the intellect by teaching induction as well as deduction * * * and provides much instruction of great value for the occu-

pations of after life.—*English Commission on Endowed Schools—1868*.

“Nature does not allow us for a moment to doubt that we have to do with a rigid chain of cause and effect, admitting of no exceptions. Therefore, to us, as her students, goes forth the mandate to labour on till we have discovered unvarying laws; till then we dare not rest satisfied, for then only can our knowledge grapple victoriously with time and space, and the forces of the universe. * * Though I have maintained that it is in the physical sciences * * that the solution of scientific problems has been most successfully achieved, you will not, I trust, imagine that I wish to depreciate other studies in comparison with them. * * I do think our age has learnt many lessons from the physical sciences. The absolute unconditional reverence for facts,—and the fidelity with which they are collected,—a certain distrustfulness of appearances,—the effort to detect in all cases relations of cause and effect,—and the tendency to assume their existence—which distinguishes our century from preceding ones, seem to me to be such an influence.”—*Helmholtz*.

CONTEMPORARY LITERATURE.

THE SIX CHIEF LIVES FROM JOHNSON'S "LIVES OF THE POETS."—Edited, with a preface, by Matthew Arnold. London, Macmillan & Co.; Toronto, Willing & Williamson.

In these days of flippant magazine-utterances, the work of authors who pride themselves on being able to write pleasantly about nothing at all, it is a relief to get back to a substantial piece of criticism such as is afforded in the book before us. When the subject matter concerns six of the best of our later English poets, when the author and critic is Samuel Johnson, and when the editor is Matthew Arnold, we may safely look forward to a work masculine alike in the grasp shown by its conception and in the power displayed in its execution.

The preface, in which alone Mr. Arnold's personality is visible (for he has intentionally avoided any encumbering of his author's text with notes) well deserves study for the opportunity it affords us of learning the editor's views on education. To Mr. Arnold's mind, modern teaching errs in excess of detail, in the undue multiplication and subdivision of the subjects taught, and by the ever varying methods of imparting knowledge which are being constantly forced upon us by educational-nostrum-mongers, compassing sea and land to make one proselyte. Accordingly Mr. Arnold suggests a simpler and a more solid process, by which he conceives the ideal line of study could be approached closer than it has been as yet. Taking the field of literature, he conceives the course of tuition commenced by a "very brief introductory sketch of the subject," followed by a series of important works, *points de repère*, as he calls them, books selected for their monumental importance, and which will serve as the "natural centres" or governing points of

whole groups of literary works. Round these representative books, which he would have the student master thoroughly, he would cluster all the secondary minor or contemporary literature which can be considered as affiliated to them, such works of derivative importance to be read more cursorily and with constant recurrence to the keystone of the position in order to solve, by the aid of the principles we have deduced from its study, those embarrassing questions which are continually occurring in the course of a student's first enquiries in literature.

Such a *point de repère*, Mr. Arnold tells us, for the study of the early English schools of biography and criticism, he has always detected in Johnson's Lives; and, having reduced the work to manageable dimensions by selecting from it the six best authors treated of, he now presents it to students as an invaluable guide and text book. There can be no doubt that it is all that Mr. Arnold claims for it; but, while welcoming it as a useful help to the study of a particularly interesting period, we must not fall into the error of extending its sphere of usefulness too far. Clearly we are now in a new era of biography and criticism, for the due comprehension of which some other central focus must be discovered. The influence exerted by German thought, through Carlyle and others, on biography, the influence of Ruskin's marvellously beautiful writings upon criticism, have been disturbing forces which, while not superseding the necessity for our understanding the earlier phases of this class of literature, still render it imperative for us to recognize that the example of Johnson is no longer a predominant element in determining the form, the method, or the manner of modern biographical or critical literature.

Considerable attention has been called of late to Dr. Johnson as a writer, and his fame in that department has been vindicated against the charges of undue prolixity and redundant verbosity which have been hurled at him by men whose style was often quite as much tainted with foreign words as was that of Johnson while it seldom attained or even approached his clearness or precision. A writer in the *Contemporary Review* (1) has recently sought to rescue Johnson's fame and place it upon a more noble pedestal than it occupies among the endless and garrulous details of Boswell. Whether he is wise or not in so doing we will not venture to pronounce.

It may be urged with much force, however, that Dr. Johnson's writings are not of a sufficiently high character to ensure him immortality, whilst the very littleness and pettiness which we meet with on every page of Boswell endear both him and his hero to every reader who, consciously or unconsciously, feels a similar sneaking regard for the really great at the bottom of his own heart. Such readers there will always be. It is of no avail to say that Boswell might have worshipped the great Doctor in a more manly fashion and after a more laudable ritual. To have done so he would first have had to have ceased to be Boswell. It is to his eternal credit that, being a born toady, he yet had that spark of divine appreciation which induced him to lick the shoes of a poor but noble-minded man rather than to do dirty jobs for Lord Tomnoddy or flatter a minister for the reversion of some sinecure in the Customs.

Every whipper-snapper now-a-days can place his finger on those points in which Johnson's criticisms were defective. He was a Tory and bore heavily on some of Milton's poetry in revenge for Milton's politics. He was as conservative in matters of verse structure as in his adherence to the doctrine of divine right; and because he could not catch the harmony of Lycidas, he calls its "diction harsh, its rhymes uncertain, and its numbers displeasing." Ears comparatively

(1) William Cycles—"Johnson without Boswell."

unaccustomed to the unvarying swing and monotonous cadence of the ever-recurring rhyme in the heroic line of Pope, do not find it difficult to catch the more widely scattered and irregular rhyme of Lycidas and plume themselves upon their superiority. But all this is to no purpose. We must remember before condemning Johnson that it is from him that we have learned the elements of our craft. His criticisms have directed hundreds of able writers in the field of literature, his opinions have, as it were, saturated all thought of the Georgian era, and have served as guides to many who have forgotten that their master had no guide himself. With the exception of Dryden's Prefaces, and the writings of Addison, Johnson broke untouched ground when he approached our poets and sought to discriminate their faults from their beauties. That his verdict should occasionally be reversed by posterity was to be expected, the ground for surprise is that it has been followed in so many and in such important particulars.

We have to notice a mistake in the date of Gray's birth, which is given as 25th November instead of December, 1716; this life is in fact the shortest and least satisfactory of them all. On page 427 there is a good specimen of the Irish bull: "they sought for everything in Homer, where, indeed, there is but little which they might not find."

No better example of the weakness of Johnson can be pointed out than his remarks on our ballad poetry, especially on "Chevy Chase." "In Chevy Chase," he says, "there is not much of either bombast or affectation; but there is chill and lifeless imbecility. The story cannot possibly be told in a manner that shall make less impression on the mind."

At the risk of being blamed for using a hackneyed quotation we will place beside this the remarks of Sir Philip Sydney on the same ballad. (1) "Certainly, I must confesse my own barbarousness, I neuer heard the olde song of *Percy and Douglas*, that I found not my heart mouued more than with a trumpet, and yet it is sung but by some

(1) Apologie for poetrie.

blinde Creuder, with no rougher voyce, than rude stile; which being so euill apparell'd in the dust and cobwebbes of that unruill age, what would it worke trymmed in the gorgeous eloquence of Pindar?"

The present age has come round to Sir Phillip's view, —with this exception, that what he failed to understand, that the very blunt directness and lack of style shown in the ballad are the most powerful reasons for its stirring us as with a trumpet, and that the "gorgeous eloquence of Pindar," might add to its beauty but could not do otherwise than detract from its force. Still we are at one with him on the main point. It stirred his blood, and it stirs ours; but on Johnson's ears it fell dull and chill. Are we to congratulate ourselves on our superior sensibility? Let us remember that not to Johnson alone but to all his contemporaries the ballad appealed in vain, and let us hesitate before we ascribe to ourselves all round greater sensibility than was given to Pope, to Dryden, and to Johnson.

LITERATURE PRIMERS.—*Homer*, Rt. Hon. W. E. Gladstone; *Greek Literature*, R. C. Jebb, M.A.; *Shakspeare*, Edward Dowden, LL.D. London: Macmillan & Co.—*English Literature*, Stopford R. Brooke, M.A. Toronto: James Campbell & Son.—*Philology*, John Peile, M.A. Macmillan & Co.—*English Grammar*, Dr. R. Morris; *English Grammar and Exercises*, Dr. R. Morris & R. C. Bowen, M.A. James Campbell & Son.—*English Composition*, Prof. John Nichol, LL.D., Macmillan & Co.

Resuming our survey of this interesting series of Primers, we find that Mr. Green's enterprise has presented us, for our consideration this month, with a work on Homer, by no less distinguished a man than Mr. Gladstone. The old poet formed a link of union between the Liberal leader and his departed antagonist, the Earl of Derby; but we doubt, although there can be no question but that the Peer had a deep interest in the *Iliad*, whether the famous Tory debater carried his scholastic researches as far as the great Commoner has done. To those who have never considered what light can be thrown upon any given age by a critical analysis of its

great poem, unassisted by any external evidence, the perusal of this little work will act as a revelation. Undoubtedly, the sifting process to which we allude can be carried too far; our over-acuteness may lead us to try and see points which were never intended by our author; but it must be admitted that, if Homer's poems are almost the only reliable data we have from which to work out the descent of the Grecian nation, and to trace out the moral lineage of the Grecian gods, no amount of labour which we may think fit to expend upon them can be considered as thrown away.

Some of the minor remarks in his book (for, unfortunately, our space is all too small to admit of an analysis of even a single one of the higher "motives" of Mr. Gladstone's work) are worthy of remembrance. Speaking of Homer's style, we are told that all his productions bear, unmistakably, the mark of their maker, and yet avoid mannerism. The definition which follows of "mannerism" is very good, and should be remembered by the numerous writers who, now-a-days, strive to cultivate a mannerism which they should rather attempt to *not* out. "The maker's mark, when too prominent, constitutes what is called mannerism. Homer's mark never obtrudes the maker, or places him between the reader and the theme."

In another passage, in which Mr. Gladstone is describing in lofty tones that lofty quality of *aidos*, that shame, which never becomes false shame, that duty, shaped with a peculiar grace, that reverence and chivalry that are "based upon a true self-respect," he is for a moment recalled from the fair fields of Troy to those other and nearer fields where he has so often "drunk delight of battle with his peers." "*Aidos*," he says, "means honour, but never the baseborn thing in these last times called prestige." It is the only passage in the book in which the eager living soul shows itself too large for the narrow armour of scholarship in which, for the nonce, it is accoutred.

Rather too much difficulty appears to be raised at p. 64, in accounting for the junction of the Scamander and Simœis, and for their having, afterwards, separate mouths. The

simple explanation would appear to be, that after one river became tributary to another, the united stream formed a delta at its mouth, and thus divided again into two distinct bodies of water, which might be poetically pictured as a separation of the river into its constituent parts again.

We must dismiss Mr. Jebb's work with a shorter notice. It is pains-taking; but, on account of the much larger extent of ground over which the author has to travel, cannot be made so interesting as the last primer we have mentioned. Mr. Jebb, we notice, does not scruple to employ the term "sin," without any reference to the necessary limitations which we must attach to the word when using it in relation to a people who, strictly speaking, had no conception of "sin" at all similar to the idea which it suggests to our minds.

Mr. Dowden has, in his *Shakspeare*, a subject to the full as interesting as that which employed Mr. Gladstone's attention. Although we know more about Shakspeare's writings and age than we do of Homer's, it is curious how little direct information we have as to his life. By the time that he is as old as Homer, and when a few more such disastrous fires as the recent one at Birmingham have cleared away the few remaining relics and early editions of his works which we possess, he will be a rare bone for the worriers of myths to mouth and wrangle over. Mr. Dowden has no small repute as a careful scholar of our greatest dramatist, and he has brought together in small compass, and marshalled in good order, all the available information which can be wanted by any one beginning to study the plays of Shakspeare. We would refer the students of English versification to the passages in which Mr. Dowden recounts the ingenious tests that have been applied by the commentators to determine the proper sequence and date of his plays. Such are the tests of the number of rhymed lines; the number of lines in which the sense stops at the end of the line, which was an earlier form than that in which the later plays were written, a large percentage of the lines which have the sense

carried on without a break into the next line; and so on. Any enthusiastic student, who feels as if he would gladly contribute his quota to the work of elucidating Shakspeare, may do so to some purpose by checking, with the help of a good edition, the calculations which have been made by such men as Fleay, Ingram, and others, in this branch of research.

At p. 96, in his remarks on the garden scene in the "Merchant of Venice," Mr. Dowden falls into error. He remarks that Portia "fails to receive any pleasure from the music which Lorenzo has so eloquently praised." So far from this being so, Portia says:

"Methinks it sounds much sweeter than by day,"

and goes on, in a passage of much force, to show the reason

"How many things by season season'd are
To their right praise, and true perfection."

Mr. Stopford Brooke's little work on *English Literature* is charmingly written. Until he can afford Taine's larger volumes, these 167 pages will prove of yeoman's service to the student, and will be well-thumbed over. The amount of detail the book contains is marvellous; and yet it is not in any way a mere catalogue of names of men and their writings. If we instance the only omission in it worth mentioning, we shall give our readers a good idea of the exhaustive character of the book. Except a passing allusion at p. 44, Mr. Brooke takes no notice of the wonderful outburst of political literature that took place during the Barons' war. To those who have not consulted the few and scarce reprints of those old ballads and poems, it will be almost past belief to be told that, in those early days, the political doctrines of the Roundheads were shadowed forth in no uncertain language. Mr. Brooke's primer is brought down to 1875.

One of the most interesting books in the series, to our mind, is Mr. Peile's *Philology*. Philology is the only bait capable of making the study of grammar, as grammar, inviting. As it is necessary to understand grammars in order to comprehend the science of languages,

we hope the rising generation will take our word for it that philology is as captivating as grammar is (or was to us) dry and sapless. Here is a branch—the degeneration of words—that boys will at once understand: “I knew a gardener who always called China asters, ‘Chinese oysters.’ In Sussex, bronchitis is called the ‘brown crisis;’ and typhus fever sometimes passes into ‘titus fever.’” This reminds us of an urchin we knew, who, being asked what he had been taught at Sunday School, replied, they had been told about three men, “Hay-stack, Meat-rack, and A-bad-negro.”

“All language,” says Mr. Peile, “is free within the limits of intelligibility;” but he certainly does not imply that all within those bounds is equally good. For instance, he condemns, while admitting that its sense is plain enough, the following gem: “An awkward thing to drive is pigs many by one man very.”

We have left ourselves no space for the remaining books on our list. Dr. Morris' *Grammar*, and the companion book of *Exercises*, appear carefully written, and well calculated to be of use in their particular province. The former is hardly as well printed as others of the same series, and the appearance of the different kinds of type, intended to assist the eye, has occasionally the very opposite effect. The *Primer on Composition* is, to our thinking, a more satisfactory book than the *Grammar*, and with this new text-book, and the Campbell-Swinton's *Language Lessons*, which we favourably spoke of last month, the subject of English Composition may be said to possess School Manuals of most satisfactory excellence as aids to its intelligent exposition.

THE CYCLOPÆDIA OF EDUCATION, by Kiddle & Schem: New York, E. Steiger; Berlin, Ont., Oberholtzer & Co.

In this age the increasing complexity of social conditions has led to a wonderful subdivision of labour, and the work of the world can only be done at all by the economising of force and the multiplication of mechanical appliances. *Ars longa, vita brevis*, is an aphor-

ism the force of which was never felt so keenly as now. Hence practical men are more and more committing to specialists the duty of research in their own departments, and make use of the results arrived at by them collected together in encyclopædic form. Pope gently satirized the Index-learning which, while making no student pale, yet holds the eel of science by the tail. But cyclopædias, those indexes of learning, have so multiplied in number and grown in bulk, that they would themselves fill now the shelves of the largest private library, whilst the big brother of the family, the great Chinese cyclopædia numbers thousands of volumes and costs tens of thousands of dollars. Next to the Chinese come the voluminous cyclopædias of the Germans, whilst the English cyclopædias are smaller in bulk, fewer in number, better arranged, and more practical. It seems strange that what might be termed the encyclopædia of cyclopædias, namely, that of education, has so far not existed in our language. But so it is, and the volume under review is actually the first attempt that has been made in the English tongue. Whilst the Germans have had in preparation for the last twenty-two years the magnificent work of Schmid—our Schmid, our great cyclopædist Dr. Wm. Smith, has not yet attempted to do for education what he has done so nobly and well for Ancient and Ecclesiastical Literature. We therefore congratulate our American cousins upon the enterprise which has prompted them to produce the welcome volume before us.

It is a handsome book of about a thousand pages, well printed on good paper, and, all things considered, issued at a very moderate price. The Editors, Messrs. Kiddle & Schem, have succeeded in associating with themselves a band of unusually able collaborators, including such well known names as Baird of Connecticut, Chettle of Oxford, Conant of Vermont, Curtis of New York, Donaldson of Edinburgh, Hawes, March, Meiklejohn, Thornton, and Walker—names which are a guarantee of exact knowledge and careful work.

The volume is greatly improved by an ad-

mirably executed analytical index at the end, which greatly facilitates prompt reference to any particular article or subject, and a system of cross references enables the reader to post himself in the various collateral branches of any main topic.

The following are the general topics dealt with in the work:—Theory of Education, School Economy, School Systems, Governmental Educational Policy, History, Statistics, Biography, and Literature of Education. Naturally the American Educational Institutions receive the largest share of attention, and the information as to the colleges and schools in the States is well given and full of interest. Still the great universities, public and national schools in Great Britain, are described by writers competent to the task, and we can in several instances bear personal testimony to the accuracy of their statisticians. Dr. Donaldson's articles on the teaching of Science and the education of the Senses, Professor Curtis' articles on Music and the Culture of the Voice, and those of Professor March, Professor Kidder's account of Sunday Schools, and the articles on educational work in each separate State, may be singled out for especial commendation. Some of the biographical notices are trivial enough, and will subserve scarcely any useful purpose; but we are not disposed to be hypercritical. We have to complain that, in common with all American writers, the editors seem purposely to ignore much of what was done in England in promoting popular education in modern times; they see exclusively through German spectacles, and do scant justice to the labours of such men as Lord Brougham, Samuel Wilderspin, Robert Owen, Lancaster and others whose practical influence is quite worthy of being ranked with that of Pestalozzi and Froebel. Perhaps this is a little pardonable jealousy on the part of our cousins, but it detracts from the value of this section of the work before us.

We are glad to see that the editors promise an annual series of Supplements in order to keep the information in the various departments up to date.

On the whole we heartily commend the

Cyclopædia of Education to our readers. Every teacher will be repaid by giving it a place on his shelves—he will find it most handy for reference and a great saving of labour.

THE WORLD: AN INTRODUCTORY GEOGRAPHY, by J. B. Calkin, M.A., Principal of the Normal School, Truro, N. S. Authorized by the Minister of Education for use in the Schools of Ontario. Toronto: James Campbell & Son.

Nearly everything that can be said in favour of the American and Canadian system, over that of the British, of combining Geography and Atlas and Illustrations in one book, may be heartily said after examining this work of Mr. Calkins. Nothing could well be more attractive or better suited as a text-book in Geography than this tempting little volume. The matter is good and the arrangement excellent, with just sufficient of the facts of Geography and the essentials of the political and physiographical features of the world as a young learner will be able to digest. The Illustrations, and particularly the clear and admirably executed Maps, combine to make up a text-book on Geography of a most inviting character, which must render the study of the subject by the pupil an unqualified pleasure as well as an interesting task. The construction of the Maps is evidently recent, as we have the course of the Congo, in Africa, laid down in harmony with Mr. Stanley's explorations, and we notice that Kashgaria or Eastern Turkestan is correctly coloured as part now of the Chinese Empire, by the forces of which power it has recently been reconquered. On the Map of South America, however, the "Argentine Republic" should replace "La Plata," and Patagonia might as well be included in the same colour as that of the Argentine Republic, as it is really a territory of that Confederation, except the strip on the Pacific side, bounded by the Cordillera of the Andes, which is claimed by Chili. In the Map of the same publishers' Modern Geography it is correctly coloured. The recent award ex-

tending the boundary of the Province of Ontario in the North-West, will necessitate change in the configuration of the Province on the Dominion Map, but this, no doubt, the publishers will attend to. The division of the North-West Territory into the districts of Saskatchewan, Bow River, and Qu' Appelle, in the same Map, is premature and consequently misleading, and there should be uniformity between the text and the Map in naming the new District of "Kewatin." In the Map it is correctly given, as the Statute requires, but in the letter-press it appears as "Keewaydin," for which there is no official authority. Many of the outlines of the Counties in the Ontario Map also require rectification, particularly in the recently formed Districts of Muskoka, Nipissing, and Parry Sound, and the provisional County Haliburton. It is an error, also, to indicate "Dufferin" as a County of Ontario; and Lennox and Addington are one county, except for electoral purposes, and should be coloured alike on the Map, and so indicated in the text.

The award we have referred to will also necessitate change in the area, given on page 21, of the Province of Ontario, where it is stated that the Dominion is *twenty-eight* times larger than that Province. This should now be altered to *eighteen* times, or thereabouts. This will also necessitate alteration in the areas given in par. 141, on page 23, and in par. 183, on page 28; the latter of which makes Quebec over one and three-fourths the size of Ontario, whereas their territorial dimensions may now be said to be nearly alike. As we aim at making our criticism helpful, we might point out what we take to be an inaccuracy in giving, on page 37, the junction of the Red River and the Assiniboine as taking place *sixty* miles from Lake Winnipeg. This should be about twenty-five miles short of that distance, unless the measurement be by water, and the tortuous character of the river much deceives us. On page 54 *Chuquisaca* should give place to *Oruro*, as the capital of Bolivia, as the latter is now the political capital of that republic. But these are minor blemishes

in a work so unquestionably excellent as this manual of Mr. Calkins. The author has long had a high reputation as an able expert in geographical science, and his lengthened experience in the preparation of text-books on geography, with the substantial aid of his present publishers, has enabled him to produce in this new manual a work in every way admirably suited for use in Canadian Schools.

COURSE OF PRACTICAL CHEMISTRY. By Henry Croft, F. C. S., Prof. of Chemistry, University College. Toronto: Copp, Clark & Co.

This new edition, of what has for many years been a well-known hand-book, has been wholly re-written. The present arrangement of the matter will make the subject more intelligible to the beginner, and greatly facilitate the work of those who study the science as it should be studied. Among other marked improvements, we may refer to the insertion of carefully compiled tables for the determination of the acid or base, a compendious statement of the properties of the reagents used in the different groups, and the expression by means of equations of the various reactions that are likely to occur in the course. We note with pleasure, that in nearly all cases Prof. Croft has appended to the name the chemical formula, a change which will be of great service to those who use the manual. Full directions are given for testing by wet analysis, and generally for the examination of such substances as the ordinary student will meet with. Prof. Croft has wisely omitted the consideration of such elements and compounds as are not likely to come under the notice of a Canadian. More prominence is bestowed in this edition on the blow-pipe, and full directions are given for the prosecution of this interesting and expeditious work of analysis. Circumstances incidental to the study of the science in a country like ours have forced the author to omit what is coming to the front as the most reliable mode of investigation—Spectrum Analysis.

Prof. Croft's book is emphatically a worker's manual, tersely and clearly expressed, and methodical and philosophical in its arrangement. A comparison of the present edition with former ones, impresses us with the conviction that the author now desires to combine the study of Theoretical and Practical Chemistry, so far as the proper treatment of the latter subject renders it possible. Were there no other grounds for our opinion, we should, for this reason, prefer the new treatment of the subject. We should like to see Prof. Croft's manual introduced into the better class of our High Schools. The departmental examination papers on Chemistry, in particular, are remarkable, so far as they are to be taken as an indication of the views of the Central Committee, under whose manipulation the science as taught in our High Schools, is just degenerating into a hybrid form of arithmetic. The special reasons for which the physical sciences are valuable, as means of mental discipline, have been ignored or misunderstood by the departmental examiners. To some extent this is not surprising, but a remedy should be provided. The last Intermediate Chemistry Paper is a marked instance of what we refer to. Besides, practical Chemistry has a more comprehensive meaning than that sanctioned by the Education Office. It is not merely the preparation of oxygen, hydrogen, &c; it includes analysis proper, and there is no good reason why the High School and Lower School programme should not cover the analysis of ordinary compounds. Examiners should keep in view the educational value that may be extracted from a study, and should conform their questions thereto. To all who require a good practical knowledge of a subject that admits of being practically taught perhaps more than any other now generally studied in our schools, we recommend Prof. Croft's admirable manual of Practical Chemistry.

THE SCHOOL AND THE FAMILY, by John Kennedy. New York: Harper & Bros. Toronto: A. Piddington.

A book on the ethics of school relations is a somewhat new departure in Educational schemes, yet such is the subject of the little work before us. Its author boldly proclaims his intention of founding the science of School discipline, and of removing the educational energy of the nation from a vicious empiricism by substituting scientific principles for blundering experiment. Every science must pass through an empiric or experimental period; by this means a mass of experience is accumulated and furnishes data for generalization. When sufficient data have been accumulated, empiricism loses its function, and becomes a hindrance. Such is the condition of affairs at present in school relations in the opinion of our author; we are now in a position to investigate and classify our collected materials, to deduce rules, and to reduce the whole chaotic mass to scientific order. Hence our author informs us his book is "an attempt to co-ordinate the truths discovered by empiricism and to fasten them in a well defined terminology." Not satisfied with this, however, the writer attempts more: exposition of a science requires a close methodical reasoning and a corresponding style. This style prevails throughout the book, decking many of our familiar sentiments in a stiff scientific garb, but as the author also aims at reaching the parents and community, we have an abundance of diffusiveness to suit the popular taste. Perhaps in attempting the difficult task of blending the purely scientific with the popular the author has attempted too much, and may succeed in pleasing neither class of readers. However this may be, the book contains much useful information, and will amply repay a careful perusal. The reader will close the book with more definite ideas of the mutual rights and duties of individuals and of communities.

EDITORIAL NOTES.

TOPICS OF THE TIME.

THE subject of the length of school hours, we notice, is here and there in Canada, happily attracting attention. In Hamilton, the matter is being wisely agitated in the interest of the health of the pupil and of his progress educationally. In Montreal, also, the subject is being freely discussed in the press, and, "after-dinner schooling," as it is termed, finds thoughtful and vigorous denouncers. There is no doubt in our own mind, that in the case of very young pupils, at any rate, the length of the school hours wants immediate and considerable curtailment. There is, indeed, nothing more vicious, —more criminal we should say,—than to subject children daily to the five or six hours school incarceration of our present system; and nothing can come of such folly but physical and mental harm. Fortunately nature rebels against a prolonged daily confinement, and the pupil refuses to respond to the continuous and wearying strain upon his attention which our system tries to impose upon him. It would be all very well, however, if the protracted hours only meant time mis-spent by the child, in the lassitude and lack of receptivity he manifests during half the period of his daily confinement; but we know that more positive evils come of the long hours, in compelling him to sit out the weary period in a too-often vitiated and unwholesome atmosphere, and in precluding him from taking his nature's fill of sunshine and pure air when he is most vigorously disposed to enjoy these necessities of his being. To the evil is to be added the further tax upon his immature powers, in the enforced hour or two of work in the evening preparation for the morrow's lesson,—generally a hateful addition to an unnecessarily toilsome day's work of the little brain. The folly of it all is that, as indisputable facts

abundantly testify, half a day is better than a whole one of school instruction, and the pupil is certain to learn more, in giving a brief and bright hour or two to his lessons, than in wearying him out by lengthened forenoon and afternoon sessions which but too often drive out all that has painstakingly been acquired. It has often been said that two hours in the morning and one in the afternoon is about as long as a bright voluntary attention can be secured from young children. The benefits of an enforced attention are never great, and no work is acquired well unless acquired with a relish, which can never be the case with either a long lesson or a long day's schooling. The wise teacher, therefore, who understands this, will throw the influence of his opinion emphatically in favour of short school hours, and even with a curtailed hour or two, he will effect much good if with the mental instruction of the pupil, he sandwiches in a goodly amount of gymnastic discipline and drill, as the best invigorator of the mind, and the happiest aid he can make use of in the prosecution of his arduous professional work.

The law inferentially gives to teachers the option of curtailing the length of the daily session, as it prescribes the maximum number of hours of the day's work, but insists upon no minimum. If the Trustees are agreed, the remedy is therefore with the profession themselves who, on every ground of expediency, in regard to the mental and physical well-being of the pupil, should summarily lop off two hours from the school day of young children, and one hour, at any rate, from that of the older pupils. And parents should be assured that, both physiologically and intellectually, their children will gain by the change, and that nothing is more silly than the greed that prompts them

in ignorance of this well-established fact, to clamour for long school hours and, as it is vulgarly phrased, for "the worth of their money."

TEACHERS can no more get on without tools than other professional workers, and no literary material is of greater service to them than the current editions of the prominent works of reference of the time. No school library should, at any rate, be without those books of consultation, the want of which leads to inaccurate and superficial scholarship. None of us can lay claim to omniscience, and the habit of deferring to authorities—and such should always be within reach for reference—not only brings satisfaction in its train, but is the best stimulant to further research, and to consequent mastery of the subject inquired into. An annual grant of, say from ten to twenty dollars, by Trustees of Schools, for this "Endowment of Research," would be the best investment they could make in behalf of sound scholarship; and if the teacher would set apart half an hour each day that his pupils and himself may refer to the authorities for light on matters of doubt coming up in the daily work of the school, he would find great benefit in the occupation himself, and his pupils would acquire increased interest in the studies in which they are engaged.

Without being too ambitious in its scope, the library should, at any rate, contain such works of reference as the following, which, of course, should be of the latest editions, and in the most substantial bindings. A good Atlas, Johnston's "Handy Royal" is the best, but his "Universal" Atlas, at a fifteenth of its price, will be found very satisfactory. A Worcester, or a Webster's Dictionary, is indispensable, though the smaller and cheaper works of Stormonth and of Chambers may suffice, if expense is alone to be considered. A good Biographical Dictionary will be needed, though we know of none satisfactory under the cost of Lippincott's, unless the purchase must be limited to a work on contemporaries, merely. In that case, the new tenth edition of Routledge's "Men of the Time," is the book

to procure. A good work on Chronology will come next, and there is no better book than Haydn's "Dictionary of Dates," of which the sixteenth edition has just been published. A comprehensive reference work in Geography is a necessity, and perhaps Mackay's Manual on the subject will be found adequate, though Keith Johnston's Dictionary is the more complete book. To this should be added, however, such works of statistical information concerning the resources and commerce of the countries of the world, etc., as Martin's Statesman's Year Book, Spofford's American Almanac, and Whitaker's Almanac, for the year, will best supply. In recording the progress of Science, Industry, and Art, for the year, some compend should be added to the library, which will be best found in Baird's Annual, published by Messrs. Harper, New York, and in the English "Year Book of Facts," published by Messrs. Ward, Lock & Tyler, of London. In general literature the want of such works will occur to the student as will explain allusions in the writings of our best authors, furnish a clue to pseudonymous personages, give information concerning the characters that figure in English fiction, and generally answer the important query itself, "who's who?" in literature. The indispensable adjuncts to the library will therefore have to include Adams' "Dictionary of English Literature," Brewer's "Dictionary of Phrase and Fable," with Bartlett's "Dictionary of Poetical Quotations," and, perhaps, Foster's "Prose Quotations," and Bohn's, or Lippincott's "Dictionary of Classical Quotations." Of course the range can be extended *ad libitum*, and be made to include reference works in Classics, Mythology, Antiquities, Modern Languages, the Sciences, etc. Our aim, however, has been but to mention the "Essentials" of a fair working library for school use, the equipment of which should be a matter of conscience with every School Trustee in the country, and be annually replenished by the investment of the moderate sum we have named. In suggesting these purchases we have not hinted at the teacher's necessity to supply

himself with the tools for his own professional work which the progress of education and of modern thought, in every subject, imperatively demand that he should be supplied with. This is a matter that every true, conscientious teacher must debate with himself. In these days, however, it is a crime that any one should undertake the duties of an educator, and yet go on, from year to year, in absolute ignorance of the lights that break in upon every department of his work, as the result of the profound thought and the unwearying research of the age. What a man himself misses in keeping himself uninformed of the activities of the intellectual workers of the time, in every region in which modern thought is ceaselessly in operation, should be a matter of the keenest regret, but in his relation to his work, it is nothing short of calamitous that the great mass of the profession should content themselves with even the most liberal attainments of a bye-gone age while a new world of thought has been ushered in, in the past generation, the effect of which should be to make us all the humblest and most reverent of learners in the school of the new era that has dawned upon the race. But let us not be told that this revival of our student days is mainly a matter of expense for which teachers are not compensated by their employers. This is low ground to take in resisting the impelling motives to keep abreast with the thought of the time, which, if not undertaken for the love of knowledge, *per se*, is not worth the effort to acquire otherwise. The pecuniary rewards of the educator in Canada, we know, are not such as tend to the elevation of the teaching profession, but the allurements to learning are surely not those that are baited solely by the professional prizes in the hands of School Trustees. Even on this ground, however, pin-hole views of the professional equipment of the educator do not pay, and it would be well that this truth had its full weight upon the minds of those, particularly, who look to teaching as a life work.

discusses the question "Shall we Give up Greek?" in an article which is forcible and interesting, but which by no means shows a full appreciation of the real issues involved in the controversy concerning "classical training," a controversy, as he remarks, of periodical recurrence; and which a recent proposal to abandon Greek in some of the Cambridge examinations has brought once more into prominence in England. Mr. Freeman considers the question from a general point of view, and not in relation to the details of Cambridge work. But, even granting that, as Mr. Freeman says, in such a discussion "we come across the old facts and the old fallacies; the old arguments come forth again to be met by the old answers," he does not, in his article, touch upon those facts—old or new—which are really the vital ones, and which must weigh down the balance against ultra-classicism, unless met by something better than a re-statement of the "old answers" which have all the weakness, but little of the dignity of age. Mr. Freeman's arguments in favour of the study of the dead languages are valid enough as against the exclusive modernists; a school of extremists who merit the sympathy of moderate and reasonable thinkers almost (though not quite) as little as do the exclusive classicists. He urges a broader teaching of Greek and Latin, which shall place them in their proper philological connection with the modern languages, in lieu of the present narrow system which has erected artificially a "middle wall of partition which is against use" between "ancient" and "modern" tongues; which wall, as Mr. Freeman says, "it is the great object of the Comparative method to sweep away." He deprecates that pedantry which confines the study of the Greek and Latin literatures to certain stages in the development of each, which it dubs as exclusively "correct" and "classical," regarding other stages as unworthy of attention; and would have the ancient tongues studied intelligently and liberally in their relations to the general history of language and of mankind. Now, with Mr. Freeman's arguments, as far as they

EDWARD A. FREEMAN, the historian, in the February number of the *Fortnightly Review*,

go, we are perfectly in accord; but they stop short of the very point at which the real conflict is raging. His article is, in brief, a reconciliation of Modern and Classical. He does not appear to recognize the fact that during the intervals of the controversy between these two, the periodicity of which he accepts with quite pathetic fatalism, a third party, Natural Science, has appeared on the field, and has directed its assault, not against a purely classical or a purely modern training alone, but against a purely literary training of either kind. The issue at present is, broadly speaking, between Language and Science. It must not be forgotten, however, as it too frequently is, that the new claimant is modest and reasonable in its demands. It is a mistake, into which some of our own contributors have fallen, to suppose that the advocates of scientific teaching desire to see it usurp the whole domain of education to the exclusion of everything else. They ask no more than that Science should receive a recognized place in the general scheme, and, at the same time, that the general scheme should be so amended as to give to each subject that amount of attention which is proportionate to its importance in the primary aims of education. To the knowledge that is of most worth, it is argued, should be allotted the most prominent place; and to other branches of knowledge places in a descending series adjusted according to their relative values. Surely, this is no unreasonable suggestion. Whether, in such a new arrangement of the educational programme, languages and literature, especially the classics, would continue to lord it over Science, is the question which is now pressing for an answer; and which far transcends in importance the secondary consideration as to the relative educational values of the ancient and modern languages. Towards the solution of the minor question Mr. Freeman's article is a sensible, if not very original contribution; but on the greater one it is silent.

THE facilities within reach of the teacher, in the mother-country, in acquiring a theo-

retical knowledge of his profession, are now many and important. As advantage is taken of them, the profession of teaching must gain in dignity, while, by increasing the qualifications of the teacher, education must itself be vastly benefited. At two of the Scottish Universities, chairs of education have of late years been founded, while lectureships, associations of teachers, educational institutes and other professional movements, indicate the increasing interest in the equipment of the schoolmaster, and the stimulus given to the science of pedagogy.

With regard to these organizations, we recently met with a letter, in an American contemporary, from Prof. Meiklejohn, who fills the Chair of Education in the University of St. Andrews, from which we make the following extract. The professor in referring to the teachers' association, says:

"The aim of the latter society, of which I was for some time secretary, and am now vice-president, is to make the occupation of teaching a *learned profession*, into which there shall be a difficult and discriminating entrance, and in which there shall be a career after you have entered it. At present the prizes fall to men who are clergymen, and who look to teaching as a mere stepping-stone to preferment in the church. We mean to raise the present condition of the so-called profession, until it shall go into the open market and compete for the possession of the best and ablest heads in the country,—with the army and navy, law, medicine, and the church. In addition to numerous signs that this time is rapidly approaching in Great Britain, I may point to the foundation of two chairs of education in the Universities of Edinburgh and St. Andrews. The occupants of these chairs are styled Professors of the Theory, History, and Practice of Education; and their duties are to study the subject, to write the literature of it, to criticise the present procedure in primary and secondary education, and to train students to be teachers. The largeness of their title, and the vastness of their functions, point to the early creation in all our universities of a faculty of education. Toward this our university of Cambridge has taken a most important step. The syndicate of that university have recommended the creation of lectureships and chairs in the theory and history of education; but they do not as yet see their way to training men in the practice of their profession."

The establishment of these chairs of education at the Universities, though a new departure in scholastic enterprise in the mother-country, must yet be of paramount importance to those devoting themselves to the work of teaching. We have in Canada our Normal Schools, and other training machinery for the profession, but there is no reason why some of our more ambitious Colleges should not establish a chair of education and find it a great attraction to their regular arts course. Mr. Crooks might arrange that Toronto University should make the experiment, and perhaps Prof. Wilson might be induced to undertake the lectureship. Or, there is the chairman of the Central Committee, Prof. Young, whose familiarity with school work, as examiner for a number of years, eminently fits him for the task, if the requisite interest can be awakened in the subject so that the chair may be suitably founded and endowed.

We can imagine some of the profession getting restive on the subject of the qualifications of the teacher, conceiving that they hear too much of the matter and see too little of recompense for any high qualifications with which they may seek to endow themselves. Nevertheless, it must be apparent that the prizes of the profession are apt only to fall into the lap of the deserving, and that he who best fits himself for his work is the man who is most often successful. But the "getting of knowledge" is not alone the object for which the ambitious teacher should be found to strive. The great desideratum in the profession to-day is skill in imparting instruction; and to be "apt to teach" is as great a requisite as any other qualification of the educator. But there must be a certain basis of mental endowment in the teacher before he can realize in what the art of teaching consists, and what practical measures are necessary to qualify himself as a successful instructor. The scope of this mental endowment may be gleaned from the following extract from a late number of the *National Journal of Education* just to hand, and we transfer it to

our pages in the hope that the profession will more and more encourage habits of mental training and discipline, so that they may gain wider views of their work, and attain to more success in the methods which they adopt in pursuing it.

"The natural and acquired qualifications of teachers in our high and technical schools cannot be too comprehensive. It would be of infinite benefit to the state and nation, if the men by whom the minds of our children are modelled, and by whom they are fitted to fill their place in life, were among the most eminent scholars and wise men. Who can doubt the benign influence upon their minds of companionship with, and sympathy from, powerful and leading minds? Should not such influences confer a blessing upon their life, and fill their minds with noble aims and purposes? Make it an axiom that society will not accept as teachers of our youth, in their highest professional walk, any but men whose knowledge of their respective subjects is thorough and profound. We often select, as teachers of our children, as their associates and guides in their studies, men to whom we neither give the highest seats at the social table, nor place on an equality with our own society. If we were truly wise, we should think no manner of men too distinguished, and no social remuneration unreasonable, which should tempt into the ranks of practical educators the most distinguished men in science, art, and practical life, and secure the first condition that the things taught have the advantage of power, weight and authority. We should reckon teaching as a special art, for which the knowledge of peculiar principles, acquaintance with approved methods, and a special training are necessary. A man should be taught the art of teaching from *masters* in teaching. These masters should show him how he first analyzes the special object and the aims of each kind of teaching, and of each branch in that kind; he should also analyze the state of mind and preparations suited to that class of instruction, and how he must parcel out the way into short journeys, with halting-places between the many stages of distances that must intervene between the pupil's aim and its achievements.

The teachers who show others how to think with truth, know with exactness, choose with wisdom, and act with effect, must have studied the laws of thought, fathomed the well of truth, surveyed the range of human choice, and studied the consequences of human action. To him the human mind is the first matter of study, and the next is human speech, with which man is endowed as the instrument of expressing thought.

The organization of man in human society is of great importance, and the knowledge of the way in which societies have grown up into their present state of organization is an indispensable preparation for successful teaching. No man must be left to act on his own judgment of that of which he knows only a portion. The man who handles matter must know its whole nature; the man who handles mind must know its hidden working. The man of the future must have *two* qualifications; education to *know*, and skill to *do*."

EDUCATIONAL MATTERS ABROAD.

THE opening of London University to women, last summer, is likely to produce very satisfactory results. At the recent Matriculation Examination, five hundred and seventy candidates presented themselves of whom eleven were women. Only two hundred and fifty-nine satisfied the examiners, but nine of these were women. It will be thus seen that while forty-five per cent. of candidates passed among the males, nearly double this percentage, or eighty-two per cent. of women passed, and passed with distinction, the first six occupying the second, ninth, eighteenth, twenty-first, thirtieth and forty-seventh places respectively, in the Honour List, and the remaining three being in the first division.

AT the great Exhibition of 1851, the eyes of English manufacturers were thoroughly opened to their inferiority to the French in matters of design in textile and other fabrics. Benefiting by the lesson they then learnt, they set about opening Schools of Art and Design in various parts of the country in which they were aided and encouraged by the Government. Now what is the result? Sir P. Cunliffe Owen, C.B., Director of South Kensington Museum says, that while acting as secretary of the English Commission at the Paris Exhibition he had had opportunities of witnessing the practical results of the Schools of Art. As an Englishman, he continued, he had reason to be proud of the position this country had taken during that Exhibition. He had been pleased to hear the French acknowledge that we

had obtained, through the agency of Art Schools, a style of our own, and that they were willing to come to this country for designs for their manufactures. Previous to his going to Paris, and while at South Kensington Museum, foreigners had come to him and spoken of the excellence of the designs obtained from this country, and he knew that French manufacturers had spent hours in the Paris Exhibition admiring, and, as they confessed, copying English designs, because they felt that unless they followed in the wake of this country they would not be able to hold their own in the race.

SIR HENRY COLE, C. B., in presenting prizes at the Portsmouth Schools of Science and Art, advocated the system of beginning science and art in the shape of cooking in elementary schools, which, he contended, would add to the great good and comfort of the people. He urged that the rudimentary principles of science should be taught in Board schools, and advocated the establishment of county associations for schools of needlework. He also advocated the development of music, which he argued was one of the most divine things God ever created.

BRIEFS ON NEW BOOKS.

The Educational Year Book for 1879. London: Cassell, Petter & Galpin. In a volume of about 350 closely printed pages, the Editor gives the result of a minute survey of the whole field of public education in England and Scotland, with such details of the various institutions which afford opportunity for obtaining an elementary, secondary, higher school, and university education, as could be gleaned for publication. Almost every feature of these institutions is succinctly described, with details of the terms and conditions of admission, the course of study, the discipline, the fees, the scholarships, together with an indication of the scope of the teaching—whether it is prevailingly classical or scientific—and all other essential facts about them which one may be supposed to wish to know. Enumeration is

also made of the separate faculties and classes at the universities, the curriculum for graduation in the various courses, with lists of the bursaries, &c., &c. The compilation is a specially valuable one for consultation and reference, and we will be glad to see it make its stated annual reappearance.

Arnold's Henry's First Latin Book, edited by C. G. Gepp, M.A. London: Rivingtons. One manifest gain in the production of text books, which the competition of school-book publishers has secured to the profession, is the greater simplicity of arrangement, and the improved mechanical appearance of the page, which characterizes the work of modern writers and editors of school books. The work of the schools has so greatly increased of late, and the multiplicity of their studies is such, that the improved features of the text books of the day are matters of no small moment, when the amount of work that has to be got up is considered. The present edition of our old friend, Arnold's Henry's Latin Book, is noticeable for its more attractive and inviting page, and for the simplification of much of its matter. The exercises, too, seem to have been pruned and brightened, and the work altogether has evidently undergone an intelligent and sympathetic overhauling. A striking feature in the new book is the development of the lessons on the principle of the gradual formation of words from their stem-roots, the case-endings being shown by changes in the type. A number of questions in syntax, a vocabulary, appendices, and general index, make up a capitally modernized First Latin Book, which no doubt will continue to hold its own in competition with the thousand and one elementary text books in Latin known to the teacher of classics.

LITERARY, SCIENTIFIC, AND ART JOTTINGS.

MESSRS. BENTLEY have just ready, from the sprightly and satirical pen of that dowager gossip, Lady Jackson, a work on "Old Paris; its Court and Literary Salons."

MESSRS. MACMILLAN & Co. have just

ready, "Paradoxical Philosophy," a sequel to the remarkable work entitled, "The Unseen Universe;" and a work by the late Prof. Herbert, on "The Realistic Assumption of Modern Science examined."

THE Dean of the Faculty of Law in the University of Melbourne, Dr. W. E. Hearn, has just issued an introduction to comparative jurisprudence, under the title of "The Aryan Household: its structure and development."

MESSRS. E. & F. N. SPON, of London, have just ready part I of their great "Encyclopaedia of the Industrial Arts, Manufactures and Commercial Products," edited by Prof. André, F.G.S.; also, "A Descriptive Treatise on Mathematical Drawing Instruments," by W. F. Stanley, M.R.I.

LT.-COL. T. E. GORDON, C.S.I., lately attached to the special English mission to Kashgar, has published a work on Russia in the East, entitled, "The Roof of the World." The book consists of a narrative of a journey over the high plateau of Thibet to the Russian frontier and the Oxus sources on Pamir.

MR. STANLEY LANE POOLE has just edited a Life of E. W. Lane, the translator of the Scholar's Edition of *The Arabian Nights*, containing concise and graphic extracts from Lane's Diary, descriptive of many of the stirring features of Eastern life amid which the distinguished Oriental scholar passed his days.

A BIOGRAPHY of William Cobbett, that "sturdiest Englishman of our grandfathers' time," as Mr. Thomas Hughes, in a recent notice of the work in *The Academy*, calls him, has just been published. As the well-known grammarian, the most powerful political writer of his day, and a self-made man of note, the memoir will doubtless be sought after by many of our readers.

THE Rev. Prof. Oswald Heer, of the University of Zurich, has made the remark that "Switzerland forms a magnificent temple of nature, in which we may follow in succession the past periods of the world's history." We notice that a translation of the distinguished professor's work, "The Primeval World of Switzerland," has just been

published, which will be interesting to all students of geology.

IN the department of the Fine Arts, Messrs. Virtue & Co. have just issued three works of special interest, viz.: "Art and Art Industry in Japan," by Sir Rutherford Alcock, late H. B. M. Plenipotentiary at Yeddo; "Metal Work: a series of 1200 of the best examples which attracted attention at the various International Exhibitions, with a treatise on the principal industries which have produced them," edited by Prof. G. W. Yapp; and "The History of Ceramic Art in Great Britain, from the Earliest Period to the present day," by Llewellyn Jewitt, F.S.A.

THE new important publications of Messrs. C. Kegan Paul & Co. embrace a translation of Dr. Jacob Burckhardt's notable work on "The Civilization of the Period of the Renaissance in Italy;" the new volume of the International Science series, on "A History of the Growth of the Steam Engine," by Prof. R. H. Thurston; "Social Problems; or, an Inquiry into the Law of Influences," by J. T. Thomson; and an essay introductory to the study of philosophy, entitled, "The Balance of Emotion and Intellect," by Charles Waldstein, Ph. D.

MESSRS. SAMPSON LOW & CO., of London, so says *The Academy*, are about to issue an important "international" work, entitled *The Hundred Greatest Men*, being the lives and portraits of the one hundred greatest men of history, divided into eight classes, each class to form a monthly quarto volume. The introductions to the volumes are to be written by recognized authorities on the different subjects, the English contributors being Mr. Matthew Arnold, Mr. Froude, and Prof. Max Müller; those in Germany, Profs. Helmholz and Curtius; in France, MM. Taine and Renan; and, in America, Mr. Emerson. The portraits are to be reproductions from fine and rare steel engravings.

MR. WHITAKER, Editor of the London *Bookseller*, some years ago made a most laudable attempt to supplant the vicious and unwholesome literature which finds its way

into the hands of youth, by the issue of *Whitaker's Journal*, a. attractive illustrated publication of high moral tone and healthy influence. Unfortunately the commendable purpose of its projector did not secure for it a long lease of life. Now, however, the attempt is again made, this time by the Religious Tract and Book Society, of London, which has just issued the first monthly part of "The Boy's Own Paper," a publication for which we bespeak the interest of teachers and guardians of the young, that the natural craving of young lads for exciting stories and tales of adventure may be appeased, without risk either to their moral or mental nature. The publication may be had through the Canada agencies of the Society, or at the chief Depository, 102 Yonge Street, Toronto.

THE *Athenæum* announces that under the editorship of Mr. J. R. Green, and the title "Classical and English Writers," Messrs. Macmillan & Co. have in preparation a series of small volumes upon the authors that are chiefly studied in schools. The primary object of the series is educational; the endeavour will be made to give the information in a clear methodical form, but yet in a style so far attractive as to arouse an intelligent interest in the authors, their age and surroundings. Addressed in the first instance to schools and to candidates for examinations, these biographical and critical studies appeal also to the wider public who are interested in literature for its own sake. The following volumes are in a more or less advanced state of preparation (two, those on Euripides and on Milton, will be published in March):—"Herodotus," by Prof. Bryce; 'Sophocles,' by Prof. Lewis Campbell; 'Euripides,' by Prof. Mahaffy; 'Demosthenes,' by Mr. S. H. Butcher; 'Virgil,' by Prof. Nettleship; 'Horace,' by Mr. T. H. Ward; 'Cicero,' by Prof. Wilkins; 'Livy,' by the Rev. W. W. Capes; 'Milton,' by the Rev. Stopford A. Brooke; 'Bacon,' by the Rev. Dr. Abbott; 'Spenser,' by Prof. Hales; and 'Chaucer,' by Mr. F. J. Furnivall. Others will follow should the idea meet with encouragement.