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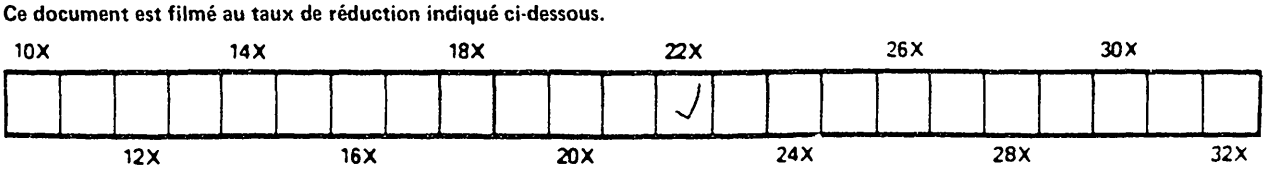

THE CANADA

EDUCATIONAL MONTHLY

AND SCHOOL CHRONICLE.

DECEMBER, 1880.

SOME THOUGHTS UPON EDUCATION AND NATIONAL PROSPERITY.*

BY REV. WALTER M. ROGER, M.A., ASHBURN.

BEFORE entering upon the point intended specially to be discussed, viz., the *kind* of education best suited to this country, it may be well to notice a few considerations calculated to bring out the importance of the subject. The history of the world gives unbroken testimony to the fact, that a nation to be prosperous and great must be characterized by intellectual culture and vigour. A glance at the great masters of empire in the ancient world and the modern will illustrate and confirm this position. Look at Babylon, Persia, Egypt, Greece, Rome, and India. Each of these in turn was conspicuous for culture and force of a certain kind, but defective both in extent and in degree, and each in turn succumbed to some younger and more vigorous nation.

In modern times a marked contrast is apparent between such lands as Spain, rich but unprogressive, mainly for want of right education, and Holland, poor in natural resources, but intelligent, self-reliant, and thrifty. In the east, India and China have come down to modern times under the sheer weight of material wealth and numerical forces, but have promptly owned the greater vigour of the more enlightened nations of the west, though these are their inferiors in material resources. See how in 1857, a handful of these intelligent and self-reliant "Isles-men of the West," held the British possessions in India against the teeming millions of the native races. One of the most sagacious and liberal of French political philosophers, Montalembert, looking on with admiring wonder at the achievements of such men as Havelock, Nicholson, Peel, Wilson, and Neill, forgets national

* This paper was recently read before the Teachers' Association of the County of Ontario, and is now published by request.

jealousy and avows with delight that, "They do honour to the human race." "It is not only such names, great beyond comparison, it is the bearing in every respect of this handful of Englishmen, surprised in the midst of peace and prosperity by the most frightful and unforeseen of catastrophes. Not one of them shrank or trembled—all, military and civilians, young and old, generals and soldiers, resisted, fought and perished with a coolness and intrepidity which never faltered. It is in this circumstance that shines out the immense value of public education, which incites the Englishman from his youth to make use of his strength and his liberty to associate, resist, fear nothing, be astonished at nothing; and, to save himself by his own sore exertions, from every sore strait in life." Well were it for France, had the nation at large, and the Government in particular, recognized the truth so eloquently and generously spoken by Montalembert. Her position and circumstances, in relation to neighbouring nations, might have been far different from what they are. Intelligent students of national history do not hesitate to lay the blame of France's misfortunes, not only in the recent war, but in the humiliating failures of her attempts at self-government during the last two generations, in very great measure upon the defective education of her citizens. While the late Imperial Government was lavish in its expenditure of public treasure upon the pomps and luxuries of the court; upon artistic displays in palace picture galleries, and costly theatres, suited to feed the national vanity, dazzle the eyes, and amuse the fancies of a fickle and frivolous populace, public schools and colleges, and national universities were left to struggle on in a state of inefficiency, for the want of the fostering care of those who should have given them a first claim on the resources of the country. In times of trouble, secret wrongs, the follies and sins of nations, as well as individuals, come to light; and the world has been hearing with unfeigned indignation how the entreaties and protests of M. Dury, the Minister of Public Instruction, were met by a Government, among whom he had not, perhaps, an equal for intellect, sagacity and patriotism. Though backed by such men as Jules Simon, Peletin, and Favre, in the constant reiteration that "France must have millions for education, or else lose her name and fame and status in the world," yet the Government continued insanely deaf, and only under the greatest pressure could he squeeze from the state treasury the sum of $200,000, for the 15,000 night schools for adults which he had succeeded in establishing. Then there was the whole system of public instruction to be reorganized, for which he could get *nothing*. The same Government, without hesitation or murmur voted the sum of *ten millions* of dollars to the new opera-houses for Parisian pleasure-seekers. In a Bill for Universal Compulsory Education, like that of Prussia, the United States and Canada, he could not find a fellow-minister to support him, though the Emperor was far-sighted enough to recognize the wisdom of the measure. Where could such madness end, but sooner or later in ruin?—a ruin which would impress the rest of the world with a most memorable lesson, through a self-sought conflict with, perhaps, the most generally and thoroughly, not to say highly, educated people on the earth. For many years, the national system of Prussian schools has been the admiration, the envy, the model of other lands. Our own has to a great extent been formed from it, and in this, and more especially in the mother country, a scientific or literary education is scarcely con-

sidered complete without a term at some of the German universities. In the little Duchy of Wurtemberg alone, it is said, more money was expended on superior education than in all France under the Empire. At Bonn, the other day, without thinking it anything out of the way, $100,000 were employed merely for the construction of a chemical laboratory! Was it any wonder, then, when the intelligence of Germany was matched against the brute force of barbarian Zouaves, Turcos, and Zephyrs from benighted Africa, united with the ignorant bourgeoise of the French provinces, and the still more degraded rabble from the cities, that victory should perch upon the Teutonic standards? Had France done long ago what she is now endeavouring to do, viz., to rescue her youth from the narrow and enfeebling regime of the ecclesiastic, as well as devising more liberal things for them nationally, it might have been very different with her to-day. England, warned by these and a variety of other considerations, has set herself in earnest to do what she had never yet done, justly famed as many of her schools and colleges have been, to organize a *national* system worthy of her advanced position in this advanced age!* Let Canada feel assured with regard to the many excellencies of her educational system in time past, and devise even yet more wise as well as liberal things for her youth in time to come. *Now* is a precious time when Confederation has placed in our hands the destinies of a young and growing nation, which has already shewn itself possessed in no mean degree of the qualities requisite to further greatness and power, and just now coming into possession of half a continent richly dowered by a beneficent Creator. Surely it were wise to give the very fullest consideration to the question of what kind of education is best suited to meet the requirements of our case.

And now let us proceed to consider a few suggestions as to some points in which our present system might, with advantage, be improved and extended.

In entering upon the discussion of these points, we will find it desirable to keep clearly before us what is implied in the term education, as grave errors on this subject are but too commonly prevalent, and, with them, and consequent upon them, a lamentable waste of precious treasure and still more precious time and energy. The derivation of the word helps us to the simplest and most correct view of the subject. Education, from the Latin *educo*, is the drawing out or development of the natural gifts of the intelligent subject. Conducted upon a moral basis, this process of course implies the fostering only of what is desirable, and the repression of what is evil and hurtful. It is in fact a process under which every school is literally, though not technically, a *kindergarten*, in which the instructor assumes the functions of "child-gardener," and with thoughtful, loving and earnest care devotes himself to that

> "Delightful task—
> Teaching the young idea how to shoot."

Patiently he watches for the first buddings of youthful capacity, and sedulously he seeks to train them up in the bright light and pure life of heaven, and so, to bring them to that pitch of perfection of which their inherent properties are capable under favourable influences. From this point of view it is evident that, in its broad and full meaning, education must include the culture of all parts

* It is to be hoped that under it the lower class of the next generation will be very different from the last. Recently the writer called on an old couple, evidently from England, neither of whom could read. Not sufficiently familiar with provincial dialects he asked what part of the country they were from, north or south? Couldn't tell. What town were they near? Exeter, in Devonshire.

of our nature, the *physical and moral* as well as the intellectual. We are too much accustomed to think and speak of man as a machine, like a clock or engine, complex and intricate indeed, but still a machine, readily divisible into parts which may be handled or discussed quite independently the one of the other, forgetting that all the parts into which our nature is, for the convenience of science, theoretically divided, are organically, intimately, and inseparably united, and so inter-dependent that no satisfactory discussion or treatment of one set of organs or faculties can afford to overlook the relation of these to the rest and the influence they mutually exercise the one upon the other. Yet no truth is more apt to be forgotten in education, while none is more important to remember. Develop the body to the neglect of the higher nature, and you make a savage. Overlook the body and force the mind, and the result is an unnatural monstrosity, the unequal balance of whose nature destroys the adjustment of his social relations, and bears him to a premature grave. A similar mistake may be made in spiritual culture with like unhealthy and unhappy results, of which the morbid fanatic is a not uncommon illustration. On the other hand, develop each in harmonious and proportionate measure, vigorously repress what is known to be hurtful, and the tendency is to produce a healthy, or in other words, a perfect man.

Not only should the nature of education, but its true object be kept distinctly in view, viz., the training of our youth to become intelligent, self-reliant, enterprising and upright citizens. In view of this high aim may it not be fairly asked if there be not grave defects in our present system, in that important department which has to do with the moral element in our nature? Not that too much is made of the mental faculties, but who will say that sufficient attention is given to the ethical element in our schools and colleges? Upon the general bearing of the subject a thoughtful writer has said, "Knowledge of itself, unless wisely directed, might merely make bad men more dangerous, and the society in which it was regarded as the highest good, little better than a pandemonium. Knowledge must be allied to goodness and wisdom, and embodied in upright character, else it is naught. The acquisition of knowledge may, it is true, protect a man against the meaner felonies of life, but not in any degree against its selfish vices, unless fortified by sound principles and habits. Hence do we find in daily life so many instances of men who are well-informed in intellect, but utterly deformed in character; filled with the learning of the schools, yet possessing little practical wisdom, and offering examples rather for warning than imitation." Pestalozzi, that pioneer educational reformer, to whose wisdom and zeal we owe so much, held intellectual training by itself to be pernicious, insisting that the roots of all knowledge must strike and feed in the soil of the religious, rightly-governed will. It is true the subject is one of difficulty, but should it therefore be relegated to the region of insoluble problems? It is commonly disposed of by the argument that morality of the highest order, and on the soundest basis is only to be secured by the influence of religion, the teaching of which cannot be undertaken by Government schools, but must be left to the Churches. Granted that the argument is relevant and conclusive as far as it goes, but it leaves room for a large amount of valuable teaching and training in fundamental morals of the utmost importance, especially in view of the fact that there is a large section of our youth still beyond the influence of our Churches

—a class from whom the vicious and criminal ranks of society are ever being recruited—who might be reached, and in large measure preserved from evil by our present compulsory system if amended in this respect and faithfully applied. Acknowledge this in theory and the practical application of it need not be difficult or long delayed. In the colleges we have admirable text-books, like Wayland's Moral Philosophy; why should we not have something similar, but rudimentary, for the public schools, say such a plain and simple treatise upon the ten commandments as the youngest reader, with the parents' and teachers' help, might understand and profit by; and then for the higher schools, something intermediate between that and such books as Wayland's. Why not? Let public opinion call for it, and our teachers' associations recommend it, and Government would soon comply. Meantime let it be generally known that there is nothing in our existing enactments to prevent the Bible being daily read, and prayer daily offered, and the ten commandments systematically taught, in our public schools (as we are glad to believe is already done in many of them), and thereby a most valuable and healthful moral educational influence supplied. Moreover, this modicum of moral culture should not be left optional, but at once made binding upon all, and as speedily as possible supplemented in some such way as just indicated. Who will say that our present system is perfect? Who will not say that, if it can, it ought to be improved at a point where vital interests of the very first importance are involved.

(*To be concluded in our next.*)

THE QUEBEC TEACHERS' PENSION ACT.

BY R. W. BOODLE, B.A., MONTREAL.

THE subject of a retiring pension for Public School teachers is one which is at last attracting the attention of the public. Having noticed Mr. Boyle's contribution to the subject in the October number of the CANADA EDUCATIONAL MONTHLY, the writer considered that an abstract of the Act lately passed by the Quebec Government would be interesting to those concerned in education in the Province of Ontario. The Act 43-44 Victoria, cap. xxii., is intituled, "An Act to establish a pension and benevolent fund in favour of officers of primary instruction," and received assent on July 24th, 1880. It was the subject of a paper by Dr. Miles, of Quebec, at the Provincial Convention of Protestant Teachers, held at Montreal in the month of October, and was fully discussed at the meeting, where a committee was appointed to frame resolutions and offer suggestions to the Government.

The following digest contains all matters of importance:

1. *Officers of Primary Instruction.* —This term includes "school inspectors, professors of normal schools, holding diplomas, and male and female certificated teachers, teaching in an institution under the control of school commissioners or trustees, or subsidized by them or by the Government, but does not include members

of the clergy or religious communities."

2. *The Pension Fund.*—To provide for pensions.

(1) A reduction or stoppage of two per cent. per annum to be made from all salaries. This is to be taken half-yearly by the Superintendent of Public Instruction out of the grant. (c. 16.)

(2) A stoppage of one per cent. to be made annually from the "Common School" and from part of the "Superior Education" Funds.

(3) An annual grant of one thousand dollars per annum to be made by the Government of the Province.

The amount thus raised to be converted into Provincial or Dominion bonds, and held in trust by the Treasurer of the Province strictly for the purposes of the Act. If after five years the interest be not sufficient to pay pensions, the stoppages from salaries of officers to be increased. (c. 12.)

NOTE.—Salaries to be estimated by the School Inspectors of Divisions and to be held to include lodging, board and fuel, when given as such. (c. 17-18.)

3. *Nature of Pension.*

(1) The pension to be annual, "based upon the average amount paid to officer during the years he has passed in teaching *and for which he has paid the stoppages.*" (c. 2.)

(2) Such pension not to exceed the following rates, viz.:

(*a*) For full service of ten years, one-fourth of average salary.

(*b*) One-fortieth of average salary to be added for every additional year.

(*c*) For forty years' service full average salary to be paid; no additional grant for service over forty years. (c. 2.)

(3) Pensions shall not be assignable or subject to seizure. (c. 14.)

4. *Officers entitled to pension.*

(1) No person entitled to pension for year for which stoppage has not been paid (*pass.*).

(2) Claim to name being placed on the pension list, to be based on five years' previous service. (c. 4.)

(3) All who have been employed as officers for a term of ten years or upwards, and who have reached the age of fifty-eight years are entitled to retiring pension. (c. 2.)

(4) Also such as have been employed during thirty years, whatever may be their age. (c. 3.)

(5) Also after ten years' service, such as are unable to remain in the service, owing to serious injury or enfeebled health—incurred through no fault of their own. (c. 5.)

(6) From the age of eighteen all years passed in teaching or as a normal school pupil shall be included in the years of service, at the time of establishing the amount of pension. (c. 9.)

(7) Former service counted before the Act, provided the stoppages be paid for such period within five years after its sanction. (c. 10.)

(8) Payments under pension fund of 1856 counted as payments under this Act. (c. 11.)

(9) Right to claim pension as well as to amounts paid to the pension fund, to be forfeited by dismissal or resignation, except for approved reasons, and in the case of one temporarily accepting a position in an independent school and regularly paying the stoppages. (c. 15, 24.)

5. *Widows and Children of Pensioners.*

(1) The widow of an officer in receipt of or entitled to claim a pension to be entitled to one-half of his pension, (1) if married to him six years before his retirement or death in the service, (2) if still unmarried. (c. 6, 7.)

(2) Where no widow's pension is paid, children of officers are entitled to pension till the age of eighteen, to the amount of widow's pension. The sum to be divided equally among all below the specified age—the share of those dying or attaining age to devolve upon the others. (c. 8.)

6. *Details of Working.*

(1) Pensions to be forfeited if unclaimed for three years, and replacement on the pension list does not entitle pensioners to arrears (c. 9)

(2) Full certificates required of officers, widows or children claiming pensions or reversions of pensions. (c. 20 21, 22, 23.)

(3) This Act does not apply to teachers already superannuated. (25.)

(4) No pension to be paid for five years after the sanction of the Act, and teachers dying within such period lose their right to pension, though their heirs may recover the amounts paid to pension fund. (c. 26, 27.)

(5) Orders or regulations to enforce the Act to be drawn up by the Superintendent of Public Instruction. (c. 28.)

AN ESSAY ON PUNCTUATION.*

(*Continued from page 497.*)

V.

RELATIVE CLAUSES.

RELATIVE clauses which are merely *explanatory* of the antecedent, or which present an *additional* thought, are separated from the context by a comma or commas (*a*); but relative clauses which are *restrictive*, that is, which limit or determine the meaning of the antecedent, are not so separated (*b*).

(*a*) His *stories*, *which* made everybody *laugh*, *were* often made to order.

(*a*) At five in the morning of the seventh, *Grey*, *who* had wandered from his *friends*, *was* seized by two of the Sussex scouts.

(*a*) His *voice*, *which* was so pleasing in *private*, *was* too weak for a public occasion.

(*a*) In times like *these*, *when* the passions are *stimulated*, *truth* is forgotten.

(*a*) The leaders of the *party*, *by whom* this plan had been *devised*, *had been* struggling for seven years to organize such an assembly.

(*a*) We not only find Erin for *Ireland*, *where* brevity is in favour of the *substitution*, *but* also Caledonia for Scotland.

(*b*) He did *that which* he feared to do.

(*b*) *He who* is his own lawyer is said to have a fool for a client.

(*b*) The uproar, the blood, the gashes, the

* Reprinted from Prof. A. S. Hill's "Principles of Rhetoric."

ghastly *figures which* sank down and never rose again, spread horror and dismay through the town.

(*b*) Those *inhabitants who* had favoured the insurrection expected sack and massacre.

(*b*) The *extent to which* the Federalists yielded their assent would at this day be incredible.

(*b*) I told *him where* that opposition must end.

(*b*), (*a*) Those Presbyterian members of the House of *Commons who* had been expelled by the army, returned to their seats, and were hailed with acclamations by great *multitudes, which* filled Westminster Hall and Palace Yard.

VI.

PARENTHETIC EXPRESSIONS.

Parenthetic or *intermediate* expressions are separated from the context by commas (*a*), by dashes either alone (*b*) or combined with other stops (*c*), or by marks of parenthesis [( )] (*d*). The last are less common now than they were formerly. The dash should not be used too frequently, but it is to be preferred to the comma when the latter would cause ambiguity or obscurity, as where the sentence already contains a number of commas (*e*).

Brackets [ ] are used when words not the author's (*f*), or when signs (*g*), are inserted to explain the meaning or to supply an omission. Sometimes also brackets are needed for clearness (*h*).

(*a*) The difference, therefore, between a regiment of the foot guards and a regiment of clowns just *enrolled, though* doubtless *considerable, was* by no means what it now is.

(*a*) The English of the *North, or* * *Northumbrian, has* bequeathed to us few monuments.

(*b*), (*a*) It *will—I* am sure it *will—more* and *more,* as time goes *on, be* found good for this.

(*c*) When he was in a *rage,—and* he very often was in a *rage,—he* swore like a porter.

(*c*) They who thought her to be a great *woman,—and* many people did think her to be *great,—were* wont to declare that she never forgot those who did come, or those who did not.

(*d*) He was received with great respect by the Minister of the Grand Duke of *Tuscany* (*who* afterwards mounted the Imperial *throne*), *and* by the ambassador of the Empress Queen.

(*d*) *Circumstances* (*which* with some gentlemen pass for *nothing*) *give* in reality to every political principle its distinguishing colour and discriminating effect.

(*d*) If it is true, as this new teacher says, that the artist is the product of his time, it is *evident* (*they* will *infer*) *that* no modern artist can become like the product of another time.

(*e*), (*a*) In the insurrection of provinces, either distant or separated by natural *boundaries,—more* especially if the inhabitants, differing in religion and language, are rather subjects of the same government than portions of the same *people,—hostilities* which are waged only to sever a legal tie may assume the *regularity, and* in some measure the *mildness,* of foreign war.

(*f*) The chairman of our Committee of Foreign *Relations* [*Mr. Eppes*], *introduced* at this time these amendments to the House.

(*g*) [See brackets enclosing the parenthetic signs in VI., line 5.]

(*h*) [As here and in (*g*), to shew that these are not examples, but references.]

The principle which requires parenthetical expressions to be set off by marks of punctuation,—a principle underlying II., III., IV., and V. (*a*), as well of VI.,—founded though it is in the obvious utility of separating from the rest of the sentence words which interrupt the continuity of thought, and can be removed without impairing the grammatical structure, may occasionally be violated to advantage; as, for example, by the omission of commas before and after the

* In this sentence, the word "or" is not a disjunctive, but has the force of "otherwise called."

words "though it is," in the fifth line of this paragraph. So, too, in the first line of XIV., the parenthetical expression, "either alone or combined with other stops," is set off by commas; but, in the third and fourth lines of VI., the same expression is written without the first comma, because by the omission the expression is made to qualify "dashes" only. In the clause, "after a brief but most disastrous reign" (II. *b*), the words "but most disastrous" are parenthetical; but marks of parenthesis can well be spared, the clause is so brief.

VII.

ELLIPTICAL SENTENCES.

A comma is often required to indicate an ellipsis, (*a*); but the comma, if not needed to make the sense clear, may be dispensed with (*b*). Where the ellipsis is of the expressions *that is*, *namely*, and the like, a point is always required: in some cases a comma is to be preferred (*c*), in others a comma and dash (*d*), in others a colon (*e*).

(*a*) *Admission*, *twenty-five* cents.

(*a*) He was born at the old *homestead*, *May 7, 1833*. He always lived in *Newport*, *Rhode Island*, *United* States of America.

(*a*) Its political maxims are invaluable; its exhortations to love of country and to brotherly affection among *citizens*, *touching*.

(*a*) With a united government, well administered, he saw that we had nothing to fear; and without *it*, *nothing* to hope.

(*b*) On the best lines of communication the ruts were deep, the *descents precipitous*, and the *way often* such as it was hardly possible to distinguish, in the dark, from the unenclosed heath and fen which lay on both sides.

(*b*) Hancock served the cause with his liberal opulence, *Adams with* his incorruptible poverty.

(*c*) This scene admits of but one *addition*, *that* we are misgoverned.

(*d*) This deplorable scene admits of but one *addition*,—*that* we are governed by councils from which a reasonable man can expect no remedy but poison, no relief but death.

(*e*) One thing is *sure: the* bill will not pass.

In both the examples under (*b*), the insertion of commas between the italicized words would, on account of the proximity of other commas, create obscurity and offend the eye; in the third and fourth examples under (*a*), this objection does not hold.

VIII.

DEPENDENT CLAUSES.

A comma is used between two clauses, one of which depends on the other (*a*). If, however, the clauses are intimately connected in both sense and construction, the comma is often omitted (*b*).

(*a*) Though herself a model of personal *beauty*, *she* was not the goddess of beauty.

(*a*) Had a conflict once *begun*, *the* rage of their persecutors would have redoubled.

(*a*) If our will be *ready*, *our* powers are not deficient.

(*a*) As soon as his declaration was *known*, *the* whole nation was wild with delight.

(*a*) While France was wasted by *war*, *the* English pleaded, traded, and studied in security.

(*b*) The Board may hardly be *reminded that* the power of expending any portion of the principal of our fund expired at the end of two years.

(*b*) And loved *her as* he loved the light of heaven.

(*b*) We wished to associate with the *ocean until* it lost the pond-like look which it wears to a countryman.

(*b*) You may *go if* you will.

(*b*) I *doubt whether* he saw the true limits of taste.

(*b*) Then Shakespeare is a *genius because* he can be translated into German, and not a *genius because* he cannot be translated into French.

These examples shew that, if the dependent clause comes first, a comma is usually required; but that sometimes one is not required if the dependent clause comes immediately after the clause on which it depends. In the former case, the word which makes the connection between the two clauses is at a distance from the words it connects; in the latter case, it stands between or at least near the words it connects.

IX.

INDEPENDENT CLAUSES.

A point is required between two independent clauses connected by a conjunction,—such as *for*, *and*, *but*, or *yet*,—in order to render it certain that the conjunction does not serve to connect the *words* between which it stands. If the sentence is a short one, and the clauses are closely connected, a comma is sufficient (*a*); in other cases, a semicolon [;] (*b*) or a colon [:] (*c*) is required. *

(*a*) I had now a mind to try how many cobwebs a single spider could furnish; wherefore I destroyed *this*, *and* the insect set about another.

(*a*) There was a lock on the *door*, *but* the key was gone.

(*a*) Learn to live *well*, *or* fairly make your will.

(*a*) The lock went *hard*, *yet* the key did open it.

(*a*) He smote the rock of the national *resources*, *and* abundant streams of revenue gushed forth. He touched the dead corpse of the Public *Credit*, *and* it sprung upon its feet.

(*b*) This was the greatest victory in that war, so fertile in great *exploits*; *and* it at once gave renown to the Admiral.

(*b*) So end the ancient voices of religion and *learning*; *but* they are silenced, only to revive more gloriously elsewhere.

(*a*), (*b*) The very idea of purity and disinterestedness in politics falls into *disrepute*, *and* is considered as a vision of hot and inexperienced *men*; *and* thus disorders become incurable, not by the virulence of their own quality, but by the unapt and violent nature of their remedies.

(*c*), (*b*) The Mohawks were at first afraid to *come*: *but* in April they sent the Flemish Bastard with overtures of *peace*; *and* in July a large deputation of their chiefs appeared at Quebec.

(*a*), (*c*) His friends have given us materials for *criticism*, *and* for these we ought to be grateful; his enemies have given us negative *criticism*, *and* for this, up to a certain point, we may be *grateful*: *but* the criticism we really want neither of them has yet given us. †

X.

DEPENDENT EXPRESSIONS IN A SERIES.

Semicolons are used between expressions in a series which have a common dependence upon words at the beginning (*a*) or at the end (*b*) of a sentence.

(*a*) You could give us no commission to wrong or oppress, or even to suffer any kind of oppression or wrong, on any grounds whatsoever: not on political, as in the affairs of *America*; *not* on commercial, as in those of *Ireland*; *not* in civil, as in the laws for *debt*; *not* in religious, as in the statutes against Protestant or Catholic dissenters.

(*a*) They forget that, in England, not one shilling of paper-money of any description is received but of *choice*; *that* the whole has had its origin in cash actually *deposited*; *and* that it is convertible, at pleasure, in an instant, and without the smallest loss, into cash again.

(*a*) In this choice of inheritance we have given to our frame of polity the image of a relation in blood: binding up the Constitution of our country with our dearest domestic *ties*; *adopting* our fundamental laws into the bosom of our family *affections*; *keeping* in-

* For punctuation of independent clauses not connected by a conjunction (successive short sentences), see XI., p. 549.

† See also XII. (*a*), p 549.

separable, and cherishing with the warmth of all their combined and mutually reflected charities, our State, our hearths, our sepulchres, and our altars.

(*b*) The ground strewed with the dead and *dying : the* impetuous *charge ; the* steady and successful *repulse : the* loud call to repeated *assault ; the* summoning of all that is manly to repeated *resistance : a* thousand bosoms freely and fearlessly bared in an instant whatever of terror there may be in war and death ;—all these you have witnessed, but you witness them no more.

(*b*) How we have feared since then—what woeful variety of schemes have been *adopted ; what* enforcing, and what *repealing ; what* doing and *undoing ; what* shiftings, and changings, and jumblings of all kinds of men at home, which left no possibility of order, consistency, or vigour—it is a tedious task to recount.

XI.

SUCCESSIVE SHORT SENTENCES.

Either semicolons or colons may be used to connect in form successive short sentences which are, though but slightly, connected in sense. Semicolons are usually preferred where the connection of thought is close (*a*) ; colons, where it is not very close (*b*).

(*a*) The united fleet rode unmolested by the *British ; Sir* Charles Hardy either did not or would not see them.

(*a*) Such was our situation : and such a satisfaction was necessary to prevent recourse to *arms ; it* was necessary toward laying them *down ; it* will be necessary to prevent the taking them up again and again.

(*a*) Mark the destiny of crime. It is ever obliged to resort to such *subterfuges ; it* trembles in the broad *light ; it* betrays itself in seeking concealment.

(*a*) The women are generally *pretty ; few* of them are *brunettes ; many* of them are discreet, and a good number are lazy.

(*a*) He takes things as they *are ; he* submits to them all, as far as they *go ; he* recognizes the lines of demarcation which run between subject and subject.

(*b*) Very few faults of architecture are mistakes of honest *choice : they* are almost all hypocrisies.

(*b*) The same may be said of the classical *writers : Plato*, Aristotle, Lucretius, and Seneca, as far as I recollect, are silent on the subject.

(*b*) Compute your *gains : see* what is got by those extravagant and presumptuous speculations which have taught your leaders to despise all their predecessors.

(*b*), (*a*) The professors of science who threw out the general principle have gained a rich harvest from the seed they *sowed : they* gave the *principle ; they* got back from the practical telegrapher accurate standards of measurement.*

XII.

COMPOUND SENTENCES.

Colons are used between two members of a sentence, one or both of which are composed of two or more clauses separated by semicolons (*a*) ; semicolons, or very rarely colons, between clauses, one or both of which are subdivided by a number of commas (*b*). The relations which the several parts of the sentence bear to one another are thus clearly indicated.

(*a*) Early reformations are amicable arrangements with a friend in power ; late reformations are terms imposed upon a conquered *enemy : early* reformations are made in cool blood ; late reformations are made under a state of inflammation.

(*a*) We are seldom tiresome to ourselves ; and the act of composition fills and delights the mind with change of language and succession of *images : every* couplet when produced is new ; and novelty is the great source of pleasure.

(*a*) There seems to have been an Indian path ; for this was the ordinary route of the Mohawk and Oneida *war-parties : but* the path was narrow, broken, full of gullies and pitfalls, crossed by streams, and in one place

* See also XII., (*a*),

interrupted by a lake which they passed on rafts.*

(*b*) He was courteous, not cringing, to *superiors: affable*, not familiar, to *equals; and* kind, but not condescending or supercilious, to inferiors.

(*b*) Death is there associated, not, as in Westminister Abbey and St. Paul's, with genius and virtue, with public veneration and with imperishable *renown; not*, as in our humblest churches and churchyards, with everything that is most endearing in social and domestic charities; but with whatever is darkest in human nature and in human destiny.

(*b*) Therefore they look out for the day, when they shall have put down religion, not by shutting its schools, but by emptying *them; not* by disputing its tenets, but by the superior weight and persuasiveness of their own.

XIII.

FORMAL STATEMENTS; QUOTATIONS.

The colon is used before particulars formally stated (*a*). The colon (*b*), the comma (*c*), or the dash combined with the colon (*d*) or with the comma (*e*), is used before quotations indicated by marks of quotation [" "].† The dash is generally used before a quoted passage which forms a new paragraph; it is joined with the comma when the quotation is short, with the colon when it is long. If the quotation depends directly on a preceding word, no stop is required (*f*).

(*a*) So, then, these are the two virtues of *building: first*, the signs of man's own good work; secondly, the expression of man's delight in work better than his own.

(*a*) *Again: this* argument is unsound because it is unfounded in fact. The facts are such as sustain the opposite conclusion, as I will prove in a very few words.

(*b*) Toward the end of your letter, you are pleased to *observe:* "*The* rejection of a treaty, duly negotiated, is a serious question, to be avoided whenever it can be without too great a sacrifice. Though the national faith is not actually committed, still it is more or less engaged."

(*c*) When the repast was about to commence, the major-domo, or steward, suddenly raising his wand, said *aloud*, "*Forbear!* —Place for the Lady, Rowena."

(*d*) Alice folded her hands and *began*:—

"*You* are old, Father William," the young man said,
"And your hair is uncommonly white . . ."

(*e*) Shakespeare wrote the *line*,—

"*The* evil that men do lives after them."

(*f*) The common people raised the cry *of* "*Down* with the bishops."

(*f*) It declares *that* "*war* exists by the act of Mexico."

XIV.

THE DASH.

The dash, either alone or combined with other stops, is used where the construction or the sense is suddenly changed or suspended (*a*); where a sentence terminates abruptly (*b*); for rhetorical emphasis (*c*); in rapid discourse (*d*); where words, letters, or figures are omitted (*e*); and between a title and the subject-matter (*f*), or the subject-matter and the authority for it (*g*), when both are in the same paragraph,

(*a*) The *man—it* is his system: we do not try a solitary word or act, but his habit.

(*a*) Consider the Epistle to the *Hebrews—where* is there any composition more carefully, more artificially, written?

(*a*) *Rome,—what* was Rome?

(*a*) To let loose hussars and to bring up artillery, to govern with lighted matches, and to cut and push and *prime,—I* call this, not vigour, but the sloth of cruelty and ignorance.

(*b*) "Long, long will I remember your features, and bless God that I leave my noble deliverer united *with*"—

She stopped short.

* See also IX. (*c*), p. 548 and XI. (*b*), (*a*), p. 549.
† See XVII., p. 551.

(*c*) I cannot forget that we are men by a more sacred bond than we are *citizens*,—*that* we are children of a common Father more than we are Americans.

(*c*) What shall become of the *poor*,—*the* increasing Standing Army of the poor?

(*d*) Hollo! ho! the whole world's *asleep!* —*bring* out the *horses*,—*grease* the *wheels*,—*tie* on the mail.

(*e*) In the first place, I presume you will have no difficulty in breaking your word with *Mrs. C———y.*

(*e*) 1874-76.

(*f*), (*g*) *Di-a-na.*—*The* usual pronunciation is *Di-an-a.*—*Smart.*

(*g*) The Eastern and the Western imagination *coincide.*—*Stanley.*

XV.

PERIOD, NOTE OF INTERROGATION, AND NOTE OF EXCLAMATION.

At the end of every complete sentence, a period [.] is put if the sentence affirms or denies; a note of interrogation [?], if the sentence asks a direct question; a note of exclamation [!], if the sentence is exclamatory. Interrogation or exclamation points are also used in the body of a sentence when two or more interrogations (*a*) or exclamations (*b*) are closely connected.

(*a*) For what is a body but an aggregate of *individuals? and* what new right can be conveyed by a mere change of name?

(*b*) How he could *trot! how* he could run!

XVI.

ABBREVIATIONS AND HEADINGS.

Periods are used after abbreviations (*a*), and after headings and sub-headings (*b*). Commas are used before every three figures, counted from the right, when there are more than three (*c*), except in dates (*d*).

(*a*) If gold were depreciated one-half, 3*l.* would be worth no more than 1*l.* 10*s.* is now.

(*a*) To retain such a lump in such an orbit requires a pull of 1 *lb.* 6 *oz.* 51 *grs.*

(*b*) WORDS DEFINED BY USAGE.

(*c*), (*d*) The amount of stock issued by the several States, for each period of five years since 1820, is as follows, viz.:—

From	1820-1825	somewhat over	$12,000,000.
"	1825-1830	" "	13,000,000.
"	1830-1835	" "	40,000,000.
"	1835-1840	" "	109,000,000.

XVII.

MARKS OF QUOTATION.

Expressions in the language of another require marks of quotation [" "] (*a*). Single quotation points [' '] mark a quotation within a quotation (*b*). If, however, a quotation is made from still a third source, the double marks are again put in use (*c*).

Titles of books or of periodicals (*d*), and names of vessels (*e*) usually require marks of quotation, unless they are italicized. Sometimes, however, where they occur frequently, or in foot-notes, titles are written in Roman and capitalized (*f*).

(*a*) [See XIII. p. 550.]

(*b*) Coleridge sneered at "the cant phrase 'made a great sensation.'"

(*c*) "This friend of humanity says, 'When I consider their lives, I seem to see the "golden age" beginning again.'"

(*d*) "Waverley" was reviewed in "The Edinburgh."

(*e*) "The Constitution" is a famous ship of war.

(*f*) [See foot-notes in this essay.]

XVIII.

THE HYPHEN.

The hyphen [-] is used to join the constituent parts of many compound (*a*) and derivative (*b*) words; and to divide words, as at the end of a line (*c*).

(*a*) The *incense-breathing* morn.

(*a*) He wears a *broad-brimmed, low-crowned* hat.

(*b*) The *Vice-President* of the United States.

(*c*) [See "in-terrogation" under XV., third line; "sub-head-ings under XVI., second line.]

XIX.

THE APOSTROPHE.

The apostrophe ['] is used to denote the elision of a letter or letters (*a*), or of a figure or figures (*b*); to distinguish the possessive case (*c*); and to form certain plurals, (*d*). The apostrophe should not be used with the pronouns *its*, *ours*, and the like (*e*).

(*a*) *'Tis* James of Douglas, by Saint Serle!

(*a*) The *O'Donoghue* was a broth of a boy.

(*a*) What *o'clock* is it?

(*a*) Hop-*o'*-*my*-thumb is an active little hero.

(*b*) Since that time it has been re-observed on every subsequent revolution, — in *'22*, *'25*.

(*b*) The patriots of *'76*.

(*c*) *Spenser's* adulation of her beauty may be extenuated.

(*c*) The Seven *Years'* war was carried on in America.

(*c*) The *Joneses'* dogs are on good terms with Mrs. *Barnard's* cat.

(*c*) *Ladies'* and *gentlemen's* boots made to order.

(*c*) The book can be found at Campbell & Son, the *publishers'*.

(*c*) The *fox's* tail was accordingly cut off.

(*c*) For *conscience'* sake.

(*d*) Mark all the *a's* in the exercise.

(*d*) Surely long *s's* (*f*) have, like the Turks, had their day.

(*e*) *Its* [not it's] length was twenty feet.

(*e*) Tom Burke of *Ours'*.

It is sometimes a question whether to use the possessive with an apostrophe, or to use the noun as an adjective. One may write,—

John Brown, Agent for Smith's Organs and Robinson's Pianos:

or,

John Brown, Agent for The Smith Organ and The Robinson Piano.

The latter form is preferable.

XX.

PUNCTUATION IN THE SERVICE OF THE EYE.

(1) A comma sometimes serves to distinguish the component parts of a sentence from one another, thus enabling the reader more readily to catch the meaning of the whole. Where, for example, a number of words which together form the object or one of the objects of a verb, precede instead of following the verb, they should be set off by a comma when perspicuity requires it (*a*); but not otherwise (*b*).

(2) A subject-nominative may need to be distinguished from its verb, either because of some peculiarity in the juxtaposition of words at the point where the comma is inserted (*c*), or because of the length and complexity of the subject-nominative (*d*).

(3) When numerals are written in Roman letters instead of Arabic figures, as in references to authorities for a statement, periods are used instead of commas, both as being in better taste and as being more agreeable to the eye. For the same reason, small letters are preferred to capitals when the references are numerous (*e*).

(*a*) Even the kind of public interests which Englishmen care *for*, *he* held in very little esteem.

(*a*) To the tender and melancholy recollections of his early days with this loved companion of his *childhood*, *we* may attribute some of the most heartfelt passages in his "Deserted Village."

(*b*) Even his *country he* did not care for.

(*b*) To devout *women she* assigns spiritual functions, dignities, and magistracies.

(*c*) How much a dunce that has been sent to *roam*,
Excels a dunce that has been kept at home!

(*c*) One truth is clear, Whatever *is*, *is* right.

(*d*) The same modification of our Germanism by another force which seems *Celtic*, *is* visible in our religion.

(*d*) To allow the slave-ships of a confederation formed for the extension of slavery to come and go free and unexamined between America and the African *coast*, *would* be to renounce even the pretence of attempting to protect Africa against the man-stealer.

(*d*) Those Presbyterian members of the House of Commons who had many years before been expelled by the *army*, *returned* to their seats.

(*e*) Macaulay: History of England, *vol. i. chap. vi.* pp. 60, 65. [See also notes throughout this essay.]

(*e*) Deut. *xvi.* 19; John *vi.* 58.

SIR WALTER SCOTT'S MATURER POEMS.—II.

(*Continued from page 510.*)

BUT admirable in its stern and deep excitement as that is, the battle of Flodden in "Marmion" passes it in vigour, and constitutes perhaps the most perfect description of war by one who was—almost—both poet and warrior, which the English language contains. And "Marmion" registers the high-water mark of Scott's poetical power, not only in relation to the painting of war, but in relation to the painting of nature. Critics from the beginning onward have complained of the six introductory epistles as breaking the unity of the story. But I cannot see that the remark has weight. No poem is written for those who read it as they do a novel—merely to follow the interest of the story; or if any poem be written for such readers, it deserves to die. On such a principle—which treats a poem as a mere novel and nothing else—you might object to Homer that he interrupts the battle so often to dwell on the origin of the heroes who are waging it; or to Byron that he deserts Childe Harold to meditate on the rapture of solitude. To my mind, the ease and frankness of these confessions of the author's recollections give a picture of his life and character while writing "Marmion," which adds greatly to its attraction as a poem. You have a picture at once not only of the scenery, but of the mind in which that scenery is mirrored, and are brought back frankly, at fit intervals, from the one to the other, in the mode best adapted to help you to appreciate the relation of the poet to the poem. At least if Milton's various interruptions of a much more ambitious theme, to muse upon his own qualifications or disqualifications for the task he had attempted, be not artistic mistakes—and I never heard of any one who thought them so—I cannot see any reason why Scott's periodic recurrence to his own personal history should be artistic mistakes either. If Scott's reverie was less lofty than Milton's, so also was his story. It seems to me as fitting to describe the relation between the poet and his theme in the one case as in the other. What can be more truly a part of "Marmion," as a poem, though not as a story, than that introduction to the first canto in which Scott expresses his passionate sympathy with the high national feeling of the moment, in his tribute to Pitt and Fox, and then reproaches himself for

attempting so great a subject and returns to what he calls his "rude legend," the very essence of which was, however, a passionate appeal to the spirit of national independence? What can be more germane to the poem than the delineation of the strength the poet had derived from musing in the bare and rugged solitudes of St. Mary's Lake, in the introduction to the second canto? Or than the striking autobiographical study of his own infancy which I have before extracted from the introduction to the third? It seems to me that "Marmion" without these introductions would be like the hills which border Yarrow, without the stream and lake in which they are reflected.

Never at all events in any later poem was Scott's touch as a mere painter so terse and strong. What a picture of a Scotch winter is given in these few lines:

> "The sheep before the pinching heaven
> To shelter'd dale and down are driven,
> Where yet some faded herbage pines,
> And yet a watery sunbeam shines:
> In meek despondency they eye
> The wither'd sward and wintry sky,
> And from beneath their summer hill
> Stray sadly by Glenkinnon's rill."

Again, if Scott is ever Homeric—which I cannot think he often is, in spite of Sir Francis Doyle's able criticism—(he is too short, too sharp, and too eagerly bent on his rugged way, for a poet who is always delighting to find loopholes, even in battle, from which to look out upon the great story of human nature), he is certainly nearest to it in such a passage as this:

> "The Isles-men carried at their backs
> The ancient Danish battle-axe.
> They raised a wild and wondering cry
> As with his guide rode Marmion by.
> Loud were their clamouring tongues, as when
> The clanging sea-fowl leave the fen,
> And, with their cries discordant mix'd,
> Grumbled and yell'd the pipes betwixt."

In hardly any of Scott's poetry do we find much of what is called the *curiosa felicitas* of expression—the magic use of *words*, as distinguished from the mere general effect of vigour, purity, and concentration of purpose. But in "Marmion" occasionally we do find such a use. Take this description, for instance, of the Scotch tents near Edinburgh:

> "A thousand did I say? I ween
> Thousands on thousands there were seen,
> That chequer'd all the heath between
> The streamlet and the town;
> In crossing ranks extending far,
> Forming a camp irregular;
> Oft giving way where still there stood
> Some relics of the old oak wood,
> That darkly huge did intervene,
> *And tamed the glaring white with green;*
> In these extended lines there lay
> A martial kingdom's vast array."

The line I have italicized seems to me to have more of the poet's special magic of expression than is at all usual with Scott. The conception of the peaceful green oak-wood *taming* the glaring white of the tented field is as fine in idea as it is in relation to the effect of the mere colour on the eye. Judge Scott's poetry by whatever test you will—whether it be a test of that which is peculiar to it, its glow of national feeling, its martial ardour, its swift and rugged simplicity, or whether it be a test of that which is common to it with most other poetry, its attraction for all romantic excitements, its special feeling for the pomp and circumstance of war, its love of light and colour—and tested either way, "Marmion" will remain his finest poem. The "Battle of Flodden Field" touches his highest point in its expression of stern patriotic feeling, in its passionate love of daring, and in the force and swiftness of its movement, no less than in the brilliancy of its romantic interest, the charm of its picturesque detail, and the glow of its scenic colouring. No poet ever equalled Scott in the description of wild and simple scenes and the expression of wild and simple feelings.

But I have said enough now of his poetry, in which, good as it is, Scott's genius did not reach its highest point. The hurried tramp of his somewhat monotonous metre is apt to weary the ears of men who do not find their sufficient happiness, as he did, in dreaming of the wild and daring enterprises of his loved Border-land. The very quality in his verse which makes it seize so powerfully on the imaginations of plain, bold, adventurous men, often makes it hammer fatiguingly against the brain of those who need the relief of a wider horizon and a richer world.—*From Hutton's Scott, in Morley's English Men of Letters Series.*

THE PHYSICAL EDUCATION OF GIRLS.—III.

(*Continued from page 513.*)

THUS far I have said nothing about systems of gymnastics or direct methods of physical training for girls, holding it, as I do, to be better and more natural to let them develop in as much freedom from artificial restraints as possible, and being fully persuaded that the various activities of healthy, happy, and cultured country life are in themselves sufficient to train the senses, and to train the muscular system and bring it into subjection to the will, to do which is the essential object of all physical education. If, however, from motives of convenience or necessity, children are brought up in towns, artificial methods of physical training must needs be resorted to, in order to supply the place of natural ones; and it becomes a subject of national importance to study the best gymnastic methods and appliances, to understand clearly the reasons for them, and why it is undesirable to put boys and girls through exactly the same course of gymnastics.

The training of the senses requires no special adaptation for boys or for girls, the element of sex not entering in here at all. To teach the eye to see properly surrounding objects, the ear to hear and discriminate sounds discordant or harmonious, and gradually to educate it up to a preception of the beauties first of simple melody and later on of more complicated musical combinations; to teach the palate to choose and to enjoy harmless, in preference to harmful, food and drink; to train, in short, all the senses to be keen and quick in action, and faithful ministers interposed between the soul and the outer world, is the office of the educator of the youth of both sexes, and need not now occupy us, who have met to consider physical education in its special bearing on girls.

Girls feel no pleasure in taking more physical exercise than their frame is fitted for, any more than a healthy palate prompts to gluttony or excess. There are natural adjustments and instincts of propriety which may safely be trusted to choose what is really befitting to girls and boys. But if children are taken out of their natural medium, country life, and bred in cities, with artificial gymnastics to develop and strengthen their muscles, then it becomes necessary to study carefully and to follow faithfully the differences which sex

has implanted in boys and girls, and it behoves us to beware that we respect in our systems of physical education the laws of development of each sex.

We have then to consider that, from their general conformation and the special maternal functions for which nature is slowly and silently fashioning them, gymnastic exercises for girls must be less violent, perhaps more frequent, but certainly less prolonged, than those designed for boys. In later girlhood girls may even require occasional short intermittences on account of temporary weakness or trifling indispositions, whence it is obvious that it is most consistent with delicacy and propriety that the gymnastic exercises of girls should be performed under the direction of thoroughly qualified and efficient women teachers, who can best estimate the varying physical capacity of the developing girl, and who can, as a matter of course, question her pupils on health subjects which cannot with any propriety be discussed by a man with young girls. Again, into the question of gymnastics for girls the consideration of the relatively large size of their pelvis, the position of the organs contained in it, and their liability to congestion, displacement and strain in consequence of ill-directed gymnastic exercise, or still more pernicious rivalry between girls of unequal physical power, enters largely. In short, the gymnastic training of girls involves so many questions of detail and of compromise between the general and the particular that I fail to see how any one but a woman, qualified for the work by nature and by the best and most thorough training, can carry it out satisfactorily. A woman also can far more efficiently than a man train young women teachers, appreciating, as she only can do, the weariness and actual hard work that it is to them, with their consolidated frames and disobedient muscles, to master exercises which are mere child's play to supple young girls.

So far Ling's exercises, the so-called Swedish gymnastics, have been found most suitable for girls; but I confess I look forward to a time when some woman of genius shall, with all the learning of the schools at her command, joined to her own special feminine instinct, have given us something even better and more completely adapted to the requirements of girls than Ling's system of gymnastics.

In all system of gymnastics—and perhaps this is more necessary for girls than for boys, as women's lives are spent more at home, and manual dexterity is of even more moment to them than to men, on account of the variety of work for which handiness is demanded in a household, although, alas! it is often demanded in vain—training of the hand ought to hold a prominent place.

The left hand especially requires to be reinstated in its natural position of equal co-operation with the right from which centuries of misdirected educational efforts have driven it. Instead of striving to prevent a child from making use of its left hand, and forcing it to use almost exclusively the right, our endeavour should be to make it equally expert with both hands, not alone for the sake of the increased capacity for all kinds of manual work thus gained, but also as a means of indirectly developing the right or corresponding half of the brain, on which muscular activity reacts as a powerful stimulus. Education has taken a direction so entirely false in regard to the left hand that it has created a wholly artificial necessity for special left hand gymnastics, to counteract not only actual wrong teaching but inherited wrong tendencies; for the very slight preference which perhaps a small majority of infants give to the right hand over the

left would never, without the injudicious fostering of parents, have resulted in that maiming of the race which righthandedness implies. That the disability is an artificial and not a natural one is proved by the fact that energetic individuals once as right-handed as their fellows do sometimes teach themselves to become ambidexter when circumstances make it desirable or necessary; and that they should be able to so is the less to be wondered at when we reflect that there has been in our own day such a prodigy as an artist of considerable merit, born without hands, who painted his pictures with his feet, which long use had rendered as deft as other people's hands.

In estimating the advantages girls would derive from a rational system of physical education, it is often overlooked that, apart from the general advantage to all human beings of well-developed muscles, and the importance of muscular exercise as a promoter of the venous circulation, together with its strengthening and steadying influence on the nervous system, muscular exercise retards the advent of puberty by directing an abundant supply of blood to the active muscles, whereas muscular inactivity favours congestion of internal organs, precocious sexual development, with all its long train of physical and moral evils, and that hydra-headed parent of female ailments in civilized communities, instability of the nervous system, or disturbed equilibrium of the motor and sensory divisions.

The special duties of women make large calls on muscular strength; and if in childhood the opportunity afforded of developing it is missed, how can these claims be met? Is it not pitiable to see yearly thousands of mothers break down under the burden of maternity borne for the first or second time, while it is no exaggeration to say that not twenty per cent. of English mothers belonging to the upper classes of society are physically capable of carrying about in their arms their own babies, but must perforce make them over to the care of strangers? Is it too much to say of women that they "need strong arms that can cradle a healthy child and hold it crowing in the air, backs that will not break under the burden of household cares, a frame that is not exhausted and weakened by the round of daily duties?"

When I look round among the women whose family history is known to me, and with whose maternal experiences professional acquaintanceship has made me familiar, I find that all those who have safely and easily passed through the crises of motherhood without impairment of general health are muscularly well developed; most of them led as children a free outdoor country life; and a large proportion were their brothers' playmates and comrades in girlhood in all their active sports. This entirely coincides with medical experience generally, for the almost incredible expenditure of muscular force which women have to sustain in a single day during the exercise of their most laborious maternal function, cannot fail to overdraw, if it does not exhaust, the strength and powers of endurance of those women who, as one of our well-known obstetricians has aptly put it, "have never done a hard day's work in their lives before."

I am content to rest my claim for the physical education of girls on their universally recognized right to become in fulness of time wives and mothers; for if it be once admitted that it is due to girls to spare no pains to make them strong for the performance of their special womanly duties, we need ask for no more. Girls of the physical calibre which will make them the strong mothers of a strong race are sure to have such a

foundation of health and strength, such firmness of muscle, such well-strung nerves, such well-developed brains (for it must not be forgotten that the size and quality of the brain is largely influenced by the muscular development of the body), that they will be able to accomplish without strain a very large amount of intellectual work; able, in fact, to do any kind of intellectual work which they deliberately elect to do. And we shall be no more assailed with pitiful tales of girls crushed under the weight of competitive examinations, of over-active brains in feeble bodies, giving way for years or for life. We shall hear no more, in short, of those disgraceful breakdowns of health on the threshold of adult life which bring such discredit on the movement for the higher education of women, although they are by no means confined to the female sex. For a girl to break down under pressure of intellectual work is, I contend, a disgrace to those who have been entrusted with her early training, no less than a discredit to herself, and a dishonour to the woman's cause; and it is high time to raise our voices in strong protest against such waste of precious young human life, such violation of physiological laws, and such criminal ignorance of the conditions and requirements of healthy development in women.

FRANCES E. HOGGAN, M.D.

UPPER CANADA COLLEGE.

BY REGIODUNENSIS.

UPPER Canada College stands pre-eminently alone among the High Schools of Ontario. The grounds upon which it becomes entitled to this distinction among its compeers, is the amazing extent to which it receives aid from its Legislative Endowment —some $23,000 per annum. A questionable spirit of localism has for years past prevented the Toronto press from exposing this scandalous and totally unjustifiable waste of public money. Self-interest strangled their patriotism.

The fact of the matter is that the endowment of Upper Canada College was, at the outset, a grave mistake, and the wisdom of the Legislature in continuing it to the present time may well be disputed. It was bad enough that the injustice should have been at first perpetrated; it is infinitely worse that it should be longer continued. That previous legislators should have committed a serious wrong is no reason why our present ones should culpably refuse or neglect to right it. The endowment was more than a mistake. It was accomplished only by the spoliation of the outlying Grammar Schools—an act which in itself was sufficient to gain for the whole transaction the unqualified disapproval of every true lover of education. Even the miserable excuse that there were no schools to do the work of secondary education for the Province could not be urged in defence of their action. John S. Cartwright, Robert Baldwin, Christopher Hagerman, Sir J. B. Robinson, Sir Jas. Macaulay, Chancellor Vankoughnet,

Sandfield Macdonald, Sir John A. Macdonald, Hon. Oliver Mowat, Sir Richard Cartwright, G. A. Kirkpatrick, M.P., and a host of others that might be mentioned, were all educated at the District Grammar Schools,—men whose superiors have not yet appeared in Canada, whether at the Bar, in the Legislature, or on the Bench. Notwithstanding that the eight old district Grammar Schools deserved so well of the country, Sir John Colborne illegally transferred 60,000 of the 250,000 acres set apart by the Imperial Government for Grammar School purposes, to Upper Canada College. Then followed the plundering of the Cornwall, the Kingston, and the Niagara Schools of their royal annual grants of £750 sterling. Nor was this all. The casual and territorial fund of the Province was preyed upon to the extent of $4.444 per annum; the property of the Toronto District Grammar School (now the Collegiate Institute) was unlawfully appropriated and sold; and worst of all, nearly three-fourths of the University Endowment was absorbed—not to speak of $26,000 of Common School money. Altogether nearly $1,500,000 have been expended upon it since its establishment in 1830. Its ill-gotten endowment, according to Chief-Justice Moss, now furnishes it with an income of $23,000 per annum; $10,000 more are derived from fees; so that it has a revenue considerably over $30,000. The writer of this article has no intention of tracing the dark history of this boarding school through its half-century of parasitical existence. Other and abler pens have already done that; but taking matters as they now stand, what reasons can be urged for the continued support of Upper Canada College? Why allow it to be longer benefited by property obtained by fraud, and held by mere sufferance? To do what? Purely High School work! For years past it has been a mere feeder of University College. It claims to be something more, but no one apparently can point out on what the claim is founded, save the vigorous but unsupported assertions of its friends. It is a notorious fact that this large sum of $30,000 is spent every year in attempts to enable it to do work for the Provincial University which can be done quite as well, and much more economically, in the High Schools. Over twenty thousand dollars of the public funds of the Province are frittered away upon an institution that has been allowed to survive its time, and which, if judged by the tests now applied to our High Schools, would exhibit no very astonishing record to the country. Judging by the number and the rank of the students whom she annually sends up for University Matriculation, Upper Canada College has nothing to boast of. Here is her record for the past three years as compared with that of the High Schools and Collegiate Institutes:—

FIRST AND SECOND CLASS HONORS.

	Coll. Inst's.		High Schools.		U.C.C.		Private Schools.	
1880.	1st.	2d.	1st.	2d.	1st.	2d.	1st.	2d.
Classics	5	5	0	2	1	3	1	0
Mathematics	8	5	6	12	0	2	2	1
English	5	12	3	12	2	4	0	0
History, etc	5	10	3	5	3	1	0	0
French	1	10	0	8	0	5	0	1
German	7	0	5	0	3	0	0	0
Total	31	44	17	39	9	15	3	2
1879.								
Classics	7	7	2	3	1	2	0	0
Mathematics	17	1	12	11	1	1	3	1
English	22	10	10	13	3	4	1	3
History, etc	6	17	5	9	3	3	1	1
French	7	11	5	3	4	3	0	1
German	5	6	3	0	2	4	0	1
Total	64	52	37	39	14	17	5	7
1878.								
Classics	4	13	2	5	2	3	0	0
Mathematics	8	0	6	0	2	0	0	0
English	17	26	12	9	0	6	1	0
History, etc	9	17	1	11	2	2	1	0
French	8	10	2	5	2	3	0	2
German	7	4	1	1	3	10	0	0
Total	43	53	14	31	11	24	2	2

	Coll. Inst'e.	High Schools.	U.C.C.	Private Schools.
Total number of matriculants				
1878	95	56	20	11	8
1879	131	52	55	12	12
1878	93	51	27	9	8

SCHOLARSHIPS.

Junior Matriculation.

Total awarded—					
1880	9	8	0	1	0
1879	9	7	1	1	0
1878	8	4	2	1	0

Senior Matriculation.

1879	3	1	1	0	1
1878	3	1	0	0	0

The above figures shew at a glance the comparative amount of work done by the High Schools and Upper Canada College during the time specified, with this exception, that the former have been making rapid strides forward, the latter has year after year been compelled to retire further and further into the background. The Toronto Collegiate Institute—not to mention others—at the University matriculation of June last took a position which Upper Canada College has barely attained in even its palmiest days; and yet the former received in 1879 only $1,995 50 from Government; the latter, its $23,000. The fact of the matter is, that from being the principal feeder of University College twenty-five years ago, it has in the main degenerated into a nursery for the propagation of youthful prig-ism and the exotic growths which spring up in the effort to give a "high-toned" education. That the "college" has continued to score a few honours in the sub-departments of English History and Modern Languages is about all that the institution can claim for itself; of first class honours in the weightier departments of Mathematics and Classics it has little to shew. Notwithstanding this indifferent record, it continues to be petted and advertised by the governors of University College, from the President downwards. This suggests a point in the discussion of the question that has generally been shirked. The sole control of Upper Canada College is now vested in a committee of the Senate of Toronto University. That body is therefore responsible for the continued existence of the so-called College, for the waste of public money in maintaining it, and for the persistent and successful efforts to advertise it at the expense of the High Schools. Without doubt, if the Senate had recommended the disestablishment of Upper Canada College, the Legislature would long ago have withdrawn its fat endowment. Why the Senate has not done so is a question which the Chancellor, or his Vice, might well be asked to answer. Apathy and neglect are no excuse for the non-fulfilment of duty. If those who control this boarding-school college see no waste of public money in its endowment, they must be prepared to defend its maintenance. Their attempts to bolster a decaying institution are not creditable to their professed regard for secondary education. A paltry sum of five hundred dollars is considered a sufficiently large Government grant to call forth the best efforts of the masters in many of the outlying schools, but the patrician staff of Upper Canada College must be propitiated with nothing less than $23,000 of Legislative pap.

That the benefits of the school are largely confined to Toronto and vicinity is clearly seen by an examination of the Return furnished by order of the Legislative Assembly in February, 1878. The following is a summary of the attendance taken from that return:

Session.	Residence. U. S.	Toronto and Yorkville.	Ontario.	Elsewhere.
1867-68..	13	125	82	3
1868-69..	10	179	98	211
1869-70..	28	191	103	4
1870-71..	17	175	103	5
1871-72..	12	186	103	5
1872-73..	20	164	116	3
1873-74..	10	169	121	4
1874-75..	14	204	106	6
1875-76..	6	182	121	6
1876-77..	4	196	102	9
1877-78..	4	176	97	9

It is to be presumed, (1) that the "College" was never intended to educate the children of citizens of the United States; (2) that Toronto Collegiate Institute could, with additions and alterations, easily accommodate all High School pupils residing in the city and vicinity; (3) and that the other provinces of the Dominion can educate their own children: and then we reach the astounding fact that Upper Canada College is endowed to the extent of $23,000 per annum to educate a daily average attendance of about 90 pupils from various parts of Ontario. This is about $250 per pupil per annum; or taking the total attendance at 300, and the whole revenue at $30,000 (and it is considerably more), the cost of educating each pupil is found to be at least $100 per annum. The same work is being done in many of the High Schools at a cost of about $40. Trinity College School, Port Hope, Albert College School, Belleville, and Hellmuth College School, London are all doing similar and equally good work, and are self-supporting. The pupils in these schools, as well as those in Upper Canada College are, it is well-known, the sons of wealthy men, the very men for whom the Province, is not called upon to provide any such seats of learning. If provided at all, they should be for the sons of the poor. Let it be remembered, also, that the amount distributed annually among the Public Schools by the Legislature, is only about $1 per pupil, and it will soon become apparent how unjust and indefensible this state of affairs is—$250 upon a rich man's son attending Upper Canada College, and $1 upon a poor man's, attending say a city Public School.

Of course, the people of Toronto are strongly in favour of its continuance. No wonder! They get the benefit, and the Province foots the bill. However, the temper of the House of Assembly last winter, when the subject was up for discussion, shewed pretty clearly that the days of this high-caste boarding-school are numbered. Financial syndicates are all the rage now. Why should not the shop keepers of Toronto, as the London *Advertiser* suggests, buy out the whole machine from Government, and run it as a private enterprise? Other schools of a similar character in Ontario are self-supporting; why should not this one become so? The revenue from endowment could then be expended, as orginally intended, upon the High Schools of the Province.

In the last examination in London (Eng.) University, ladies take five out of the first fourteen places. Sixteen out of eighty-five in honors, and twenty-four in the first class are also ladies.

Philologists in England are the strongest advocates of the spelling reform, but have aid from all ranks. The London Spelling Reform Association now publishes a monthly journal which seems ably edited. It is published, at 20 Paternoster Row, London, at twopence per number.

The results of the Oxford local examination shews that 217 passed the senior examination. Among the juniors 195 girls passed.

What is in a Word.—Pupils do not seem to remember the words we pronounce correctly, but if we teach a wrong pronunciation they seem to cling to that with wonderful tenacity. The teacher, letting a word go wrong once, may fix in many minds a wrong pronunciation that may last for life.—*Educational Weekly.*

ARTS DEPARTMENT.

ARCHIBALD MacMURCHY, M.A., MATHEMATICAL EDITOR, *C. E. M.*

Our correspondents will please bear in mind, that the arranging of the matter for the printer is greatly facilitated when they kindly write out their contributions, intended for insertion, on one side of the paper ONLY, & so that each distinct answer or subject may admit of an easy separation from other matter without the necessity of having it re-written.

Mr J. B. McColl, Teacher, sent correct solutions of problems 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, and 155, last month, too late to be noticed in the November number.

SOLUTIONS

By the proposer, J. H. BALDERSON, B.A., Math. Master, High School, Mount Forest.

165. Prove that the equations

(1) $x+y+z=a+b+c$;

(2) $\frac{x}{a}+\frac{y}{b}+\frac{z}{c}=1$;

(3) $\frac{x}{a^3}+\frac{y}{b^3}+\frac{z}{c^3}=0$;

are equivalent to only two independent equations if $bc+ca+ab=0$.

(1) $\frac{x}{a+b+c}+\frac{y}{a+b+c}+\frac{z}{a+b+c}=1$;

(2) $\frac{x}{a}+\frac{y}{b}+\frac{z}{c}=1$;

(2) $-$(1) then

$$\frac{x(b+c)}{a(a+b+c)}+\frac{y(a+c)}{b(a+b+c)}+\frac{z(a+b)}{c(a+b+c)}=0,$$

or $$\frac{x(b+c)}{a}+\frac{y(a+c)}{b}+\frac{z(a+b)}{c}=0,$$

or $$\frac{\frac{x}{1}}{\frac{a}{b+c}}+\frac{\frac{y}{1}}{\frac{b}{a+c}}+\frac{\frac{z}{1}}{\frac{c}{a+b}}=0;$$

by the restriction $a=\frac{-bc}{b+c}$,

or $$\frac{1}{b+c}=-\frac{a^2}{abc}$$

$\therefore \frac{1}{c+a}=-\frac{b^2}{abc}$ by symmetry,

$\therefore \frac{1}{a+b}=-\frac{c^2}{abc}$;

we have $$\frac{\frac{x}{a^3}}{-abc}+\frac{\frac{y}{b^3}}{-abc}+\frac{\frac{z}{c^3}}{-abc}=0,$$

or $\frac{x}{a^3}+\frac{y}{b^3}+\frac{z}{c^3}=0$;

$\therefore$ the three equations are equivalent to two independent equations.

167. The number of combinations of $2n$ things taken n at a time of which n and no more are alike is 2^n, and the number of combinations of $3n$ things of which n and no more are alike, is $2^{2n-1}+\frac{\lfloor 2n}{2(\lfloor n)^2}$.

n things can be taken from the n like things in one way; $(n-1)$ things can be taken from the n like things and 1 from the n unlike things in n ways; 2 things can be taken from the n unlike things and $(n-2)$ from the like in $\frac{n(n-1)}{\lfloor 2}$ ways, &c., &c.

It will be found that the whole number of ways is $1+n+\frac{n(n-1)}{\lfloor 2}+\frac{n.(n-1)(n-2)}{\lfloor 3}$

$$+\ldots.+1=(1+1)^n=2^n.$$

Take n things from the like, this can be done in 1 way. Take $n-1$ things from the like and 1 from the unlike, done in $2n$ ways. Take $n-2$ things from the like and 2 from the unlike, done in $\frac{2n(2n-1)}{\lfloor 2}$ ways.

Take $n-3$ things from the like, and 3 from the unlike, done in $\frac{2n(2n-1)(2n-2)}{\lfloor 3}$ ways.

This will continue for n terms, and we have the sum equal to

$$1+2n+\frac{2n(2n+1)}{\lfloor 2}+\ldots+\frac{2n}{(\lfloor n)^2},\text{ but}$$

$$(1+1)^{2n}=1+2n+\frac{2n(2n-1)}{\lfloor 2}+\ldots.$$

$$+\frac{2n}{(\lfloor n)^2}+\ldots+2n+1;$$

if we add $\frac{2n}{(\lfloor n)^2}$ to each side of this latter we have double the number of combinations;

$\therefore$ twice the number

$$=(1+1)^{2n}+\frac{\lfloor 2n}{(\lfloor n)^2}=2^{2n}+\frac{\lfloor 2n}{(\lfloor n)^2},$$

or the number $=2^{2n-1}+\frac{\lfloor 2n}{2(\lfloor n)^2}$.

PROBLEMS.

176. Apply the principles of algebraic expansion and factoring to the solution of the following arithmetical problems:—

Simplify

(a) $\frac{\frac{1}{4}-\frac{1}{9}+\frac{1}{16}}{\frac{1}{2}-\frac{1}{3}}$; (b) $\frac{(\frac{3}{8}+\frac{1}{2})^2-\frac{3}{8}-\frac{1}{3}+\frac{1}{4}}{\frac{3}{8}+\frac{1}{3}-\frac{1}{2}}$;

(c) $\frac{2499}{49}$; (d) $\frac{6364}{15\times 5+11}$;

(e) $\frac{2\frac{9}{7}+1+\frac{8}{8}+\frac{27}{84}}{(\frac{2}{3}+\frac{3}{4})^2}$; (f) $\frac{(\frac{1}{2})^4+2(\frac{1}{2}\times\frac{1}{3})^2+(\frac{1}{3})^4}{\frac{1}{4}+\frac{1}{9}}$;

(g) $\frac{.5\times.25-25\times.0625}{.5-(.5)^2}$; (h) $\frac{2\times 4\times 8-.5\times.25}{5-1.5}$

177. Factor

(a) $(1+x)^2+(1+x^2)^2+2(1+x^2)+2x(1+x^2)$.

(b) $(x+y+z)^2+(x-y-z)^2+2x^2-2(y+z)^2$.

(c) $(1+2x+x^2)^2+(1-2x+x^2)^2+2(1-x^2)^2$.

(d) $(x\times y)^4-5(x^2+y^2)-10xy-24$.

(e) $p+q+r(p+q+1)+s(1-p-q)+r^2-s^2$.

(f) $x^2+y^2+x+y+2xy-xz-yz$.

(g) $p+q+r(p+q+r+s)-s(p+q+r+s)+r+s$.

178. Shew that

$$(x+a)^3+(x-a)^3=2(x^3+3a^2x);$$

also that

$$(x+a)^3-(x-a)^3=2(3ax^2+a^3),$$

and from these formulæ simplify

(a) $(a+b+c)^3+(a+b-c)^3$;

(b) $(a+b+c)^3-(a-b-c)^3$;

(c) $(x+y+1)^3-(x+y-1)^3-2\{3(x+y)^2+1\}$.

179. Simplify

(a) $(x+a+b)^3+(x+a-b)^3$
$+6(x+a)(x+a)^2-6b^2(x+a)$;

(b) $8(x+a+b)^3-(2x+2a)^3$
$-8b^3-24b(x+a)(x+a+b)$.

180. If a cubic foot of water weighs 1,000 ounces, and the specific gravity of silver be 10.5, find how many ounces of silver would be required to make an inkstand, in the form of the frustrum of a regular hexagon, 4 inches high, each of whose sides at the base is 2 inches long and at the top 1 inch long, the *hollow* being in the form of a right cylinder, extending to within *one* inch of the bottom, and arranged about the central axis, so as to leave a wall $\frac{1}{4}$ of an inch thick at the middle of each side at the top.

181. *A* owes \$4,000, due in three years, bearing interest at 6 per cent. per annum. He wishes to make equal half-yearly deposits in the bank, so that at the end of the three years, these deposits, with accrued interest, may be just sufficient to cancel the debt, the bank allowing interest at 5 per cent. per annum, payable half yearly, and the first deposit to be made at the end of the first half year. Just after making his payment at the end of the second year he is compelled to draw out of the bank \$1,000; find how much each of his last two payments must be increased on this account; also find the total amount of the last deposit.

182. A brass scale of a barometer has been correctly graduated at 62° Fahr.; find the true reading of the barometer when it shews 30 inches at 87° Fahr., corrections being made for the expansions of the scale and the mercury, the co-efficient of expansion of brass being .00001 for every degree Fahr., and one vol. of mercury at freezing point (+32°) occupying 1.0054 vols. at 87°.

W. S. Ellis, B.A.,
Math. Master, C. I., Cobourg.

183. Prove that $1+3n+\frac{3.4}{1.2}\frac{n(n-1)}{\lfloor 2}+\frac{4.5}{1.2}\frac{n(n-1)(n-2)}{\lfloor 3}+$ &c. $=2^{n-3}(n^2+7n+8)$. *(Can.)*

184. Sum the series

$$\frac{1(x+2)}{2.3-(x+1)}+\frac{2(x+3)}{3.4-(x+2)}+\frac{3(x+4)}{4.5-(x+3)}+\text{&c., ad inf.}$$

185. Find the sum of n terms of the series

$$\frac{1}{(x+2y+3z)(2x+3y+4z)}+\frac{1}{(2x+3y+4z)(3x+4y+5z)}+\ldots.$$

186. Sum

$$1-\frac{3}{4}+\frac{3.5}{4.8}-\frac{3.5.7}{4.8.12}+\text{&c. to infinity.}$$

187. If the sides of a triangle be cut proportionally and lines be drawn from the points of section to the opposite angles: the intersection of these lines will be in the same line, viz., that drawn from the vertex to the middle of the base.

188. Given the base and perpendicular: to construct the triangle, when the rectangle contained by the sides is equal to twice the rectangle contained by the segment of the base made by the line bisecting the vertical angle.

189. Given the perimeter of a right-angled triangle, whose sides are in geometrical progression: to construct the triangle.

190. Given the vertical angle of a triangle: find the locus of the point when the base is cut in a given ratio, if the base pass through a fixed point.

191. Find the locus of the vertex of a triangle, given base and difference of base angles.

192. Prove that if a ball of elasticity e be projected from one extremity of the diameter of a horizontal circle, in a direction making an angle θ with the diameter such that the ball after one reflection at the curve passes through the other extremity, then

$$\sin\theta=\left(\frac{e}{1+e}\right)^{\frac{1}{2}}.$$

193. From what height must a perfectly elastic ball be let fall into a hemispherical bowl, in order that it may rebound horizontally at the first impact, and strike the lowest point of the bowl at the second.

194. A small pencil of rays diverge from a point in the axis of a double convex lens, the thickness of which equals one of its radii. Required the geometrical focus of the refracted rays.

J. L. Cox, B.A.,
Math. Master, C. I., Collingwood.

At the recent Cambridge examinations, the candidates, nearly all of whom were girls, numbered 811, and only 209 failed to pass in one or other group. The Divinity prize was awarded to a woman.

During a recent examination in one of our Public Schools, the teacher asked, "What is a monarchy?" and was immediately answered by an eight-year old boy, "A country governed by a king." "Who would rule if the king should die?" "The queen." "And if the queen should die?" "The jack!"

Teachers who wish to see an array of arguments against the spelling reform should send twenty-five cents to the Authors' Publishing Company, 27 Bond Street, New York, for a copy of "The Spelling Reform Question Discussed," by E. H. Watson.

A Massachusetts boy, about as high as the counter, recently went into a book-store and asked for "a book for ten cents with a murder in it." How many of our Ontario teachers keep a sharp look-out for what their boys read either at home or during recesses at school?

MODERN LANGUAGES.

[Embracing Practical School Work in English, French and German subjects.]

DICTATION EXERCISES.

ON SYNONYMS AND ANTONYMS.

[The plan adopted in the following Exercises is to select a word representing a familiar idea, with its opposite; to place a few synonyms under each; and to follow these by short sentences, shewing the proper use of each word. These sentences are to be used as Dictation Exercises.]

SYNONYMS are words of similar meaning; as *joy, gladness; sorrow, grief.*

ANTONYMS are words of opposite meaning; *joy, sorrow; gladness, grief.*

begin.	end.
commence.	conclude.
initiate.	perfect.
inaugurate.	consummate.

EXERCISE.—A river *begins* at its source. The year *begins* on the first of January, and *ends* on the last of December. An army *commences* operations in spring, and *concludes* them in autumn. We *initiate* a student in a certain study, but he must *perfect* himself. A great movement, such as the abolition of slavery, is *inaugurated* and *consummated.* A dignitary is *inaugurated* when he is inducted into office. Procedings *commence* and *conclude.* A struggle *begins* and *ends.*

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later.	earlier.
latter.	former.
this.	that.

EXERCISE.—A *later* train; a *later* addition. An *earlier* delivery. The *latter* of two trains, or editions. His *former* situation. The difference between education and instruction is, that the *former* trains the mind; the *latter* fills it with information;—*that* draws out and stimulates its powers; *this* stores and often clogs it.

accomplish.	fail.
execute.	defeat.
achieve.	frustrate.
perform.	mar.
promote.	baffle.

EXERCISE.—We either *accomplish* an object, or we *fail* in it. A general has to *execute* his own projects, as well as to *defeat* those of the enemy. Great designs are often *frustrated;* seldom *achieved.* It is often easier to *mar* other folk's work than to perform our own. A scheme is *promoted* by its friends; *baffled* by its enemies. A schemer is *baffled,* as well as his design. It is easier to promise than to *perform.*

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prosecute.	abandon.
remain.	leave.
support.	forsake.
protect.	desert.
vindicate.	renounce.
retain.	relinquish.

EXERCISE.—We *abandon* studies which it is not profitable to *prosecute.* A man *leaves* the party in which he does not wish to *remain.* Friends are *forsaken* and *deserted* by those who ought to *support* and *protect* them. We should *renounce* opinions which we cannot *vindicate.* We *relinquish* an office when we cannot *retain* it. A son often *deserts* the cause which his father *supported.* We *relinquish* purposes. We *abandon* principles. We *leave* the country.

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constant.	irregular.
continual.	interrupted.
continuous.	broken.
perpetual.	limited.
uniform.	variable.

EXERCISE.—A *constant* friend, is one who never fails us. A *constant* demand, is one that never declines. An *irregular* demand.

rises and falls. A *continual* struggle is one that has never been interrupted. A *continuous* line of railway, is one which is *broken* at no point. *Perpetual* banishment, is that to which there is no end. That which has an end is *limited*. A *uniform* standard; a *variable* standard. *Uniform* courtesy; *variable* winds.

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beautiful.	ugly.
lovely.	plain-looking.
elegant.	deformed.
graceful.	awkward.
picturesque.	tame.
sublime.	ridiculous.
grand.	paltry.

EXERCISE.—A *beautiful* face. An *ugly* man. A *lovely* child. A *plain-looking* girl. An *ugly* trick. An *elegant* form. A *deformed* limb. A graceful *movement*. An *awkward* movement. A *graceful* action. A *graceful* compliment. An *awkward* mistake. *Picturesque* scenery in the reverse of *tame*. A *sublime* thought. A *ridiculous* fancy. A *ridiculous* blunder. A *grand* scheme. A *paltry* contrivance.

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praise.	blame.
commend.	censure.
approve.	reprove.
exonerate.	rebuke.
encourage.	chide.

EXERCISE.—A master *blames* or he *praises* his servant. A critic *censures* or *commends* a book or a course of action. *Reproof* and *rebuke* are stronger than simple *blame;* they are *blame* expressed in words addressed to the object of it. To *exonerate*, is to relieve from a burden of blame. We *exonerate* one from a charge. A parent lovingly *chides* his child when he does wrong, and *encourages* him when he is doing right.

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timid.	bold.
fearful.	fearless.
spiritless.	courageous.
cowardly.	brave.
craven.	chivalrous.

EXERCISE.—A *bold* man. A *bold* step. A *bold* adventure. A *timid* girl. *Timid* policy. A *fearless* foe. A *fearful* calamity, is one that excites fear. A *courageous* spirit. *Spiritless* conduct. A *brave* soldier. A *cowardly* act. A *chivalrous* enterprise. A *chivalrous* spirit. A *craven* spirit. *Craven* fears.

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coarse.	refined.
rough.	gentle.
rude.	polished.

EXERCISE.—*Coarse* language is the sign of a vulgar mind. *Refined* taste accompanies delicacy of feeling. Manners are *rough* or *gentle*. A *rough* sailor; a *gentle* nurse. A *rough* storm; a *gentle* breeze. *Rude* language is a sign of ignorance; *polished* language, of education. A *rude* shock. *Rude* behaviour; *polished* manners. A *polished* style of writing.

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accurate.	inaccurate.
careful.	careless.
exact.	incorrect.
faithful.	faulty.
precise.	defective.

EXERCISE.—An *accurate* history is the work of a *careful* historian. A *careless* observer makes *inaccurate* statements. There may be an *exact* copy of an *incorrect* drawing. A narrative may be *precise* as far as it goes, and yet may be *defective* in some particulars. A *faithful* portrait may yet be a *faulty* picture. A *faithful* friend. A *careful* student. A *defective* education.

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reject.	admit.
refuse.	grant.
repudiate.	acknowledge.
disclaim.	avow.
deny.	confess.

EXERCISE.—We often *admit* facts while we *reject* the inferences drawn from them. A man may *confess* that he has been careless, but *deny* that he has been fraudulent. He may *acknowledge* the charge of neglect, but *repudiate* the charge of fraud. A prisoner has often *avowed* his guilt after *disclaiming* all knowledge of the crime. We *repudiate* friends whom we do not wish to *acknowledge*. We *confess* our faults. We *refuse* requests which we cannot *grant*. Permission is *refused*, or it is *granted*.

benefit.	injury.
advantage.	disadvantage.
profit.	loss.
favour.	hindrance.
service.	disservice.

EXERCISE.—*Benefits* and *injuries* are properly acts. *Advantage* and *disadvantage* are properly states of superiority and inferiority respectively. We confer *benefits*. We do *injuries*. We enjoy *advantages*. We lie under *disadvantages*. We have or gain *profit*. We suffer *loss*. *Favours* come from superiors; *services* from inferiors or from equals. *Hindrance* prevents us from acting; *disservice* acts so as to do us harm.

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deny.	affirm.
dispute.	assert.
contradict.	declare.
oppose.	maintain.

EXERCISE.—We *affirm* or *deny* statements. We *assert* or *dispute* rights and claims. We *declare* intentions and convictions. We *contradict* what we do not believe. We *maintain* a cause, and we *oppose* an enemy. Men are prone both to *affirm* and to *deny* without sufficient knowledge. He *asserted* his rights with calmness, and *maintained* them with courage. His claim was *disputed* by his cousin, who *opposed* him with all his might. Witnesses, in giving evidence, often *contradict* one another, sometimes even themselves.

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common.	rare.
ordinary.	remarkable.
vulgar.	polite.
mean.	noble.

EXERCISE.—*Common* things are cheap; *rare* things are dear. A man of *common* education. A man of *rare* ability. An *ordinary* occurrence. A *remarkable* genius. A *remarkable* result. The manners of an uneducated man are *vulgar*; those of one who has mixed in good society are *polite*. A *mean* action. A *mean* spirit. A *mean* advantage. A *mean* trick. A *mean* fellow. A *noble* action. *Noble* conduct. A *noble* institution.

increase.	abate.
enlarge.	lessen.
magnify.	diminish.
aggravate	mitigate.
augment.	reduce.

EXERCISE.—A storm *abates* or *increases*. Our interest in a subject *abates* or *increases*. Hope *lessens*. Projects are *enlarged*. Strength is often *diminished* in reality when it is *magnified* by report. When an offence is *aggravated* by previous misconduct, punishment is not likely to be *mitigated*. A man's income may be *reduced* or *augmented*. Friendship *magnifies* a man's merits, and *lessens* his faults.

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authentic.	fictitious.
genuine.	spurious.
true.	false.
real.	counterfeit.

EXERCISE.—An *authentic* history, is one whose statements may be accepted as facts. A *genuine* work, is one which is really the production of the author whose name it bears. A work which is not *genuine* as to its authorship, is *spurious*; a work which is not *authentic* as to its facts, is unreliable or *fictitious*. A *true* or a *false* statement. A *true friend*. A *false* impression. *Real* diamonds. *Counterfeit* gems.

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neglect.	attention.
omission.	observance.
disregard.	regard.
contempt.	esteem.

EXERCISE.—*Neglect* of duty is a serious fault, deserving punishment; *neglect of* parents or friends dependent on us is culpable in the highest degree. An *omission* may be the result of accident, and is a less serious offence. *Attention* implies more effort of will than simple *observance*. Culpable *neglect*. A slight *omission*. Close *attention* to duty. Regular *observance* of the laws. We have *regard* for friends; we *disregard* advice. We *esteem* honour, and feel *contempt* for meanness. Regard for the truth. Sabbath *observance*. *Contempt* of court.—*From Nelson's Royal Reader.*

ENGLISH PARSING.

THE word "but" is derived from the Anglo-Saxon bútan, contracted from be—útan, *i.e.* be=*by* and útan=*outside*, hence it meant originally "by the outside," "beyond," "except." (Skeat, Etym. Dict.) It is used in A.-S. both as a preposition and as a conjunction. It is often a troublesome word to parse, varying, apparently, from a conjunction to a preposition according to the words supplied. In the following it seems to be a preposition:

1. *I cannot be persuaded* but *that he meant mischief.* Governing a noun-sentence.

2. *Never dream* but *ill must come to all.* Supply *that* after *but.* Governs a noun-sentence.

3. *Who knows* but *he'll come yet?* Supply *that.* Governs noun-sentence.

4. *He is all* but *perfect.* Supply *a* before, and *man* after, *perfect.* Then *but* governs a noun; or expand thus: "that he is perfect," a noun-sentence.

5. *He is anything* but *wise.* Expand as in 4.

6. *This is anything* but *the truth.*

7. *It never rains* but [that] *it pours.* Or *but*=if not.

8. But *that he has a family he would have left England long ago.*

9. But *for you, we should have failed.* Perhaps governing the adverbial phrase "for you."

10. *There is no one,* but *knows.* Supply *that he* after *but.* It seems an error to parse *but* in this sentence as a "negative relative," as equivalent to *who—not.* This explanation was probably suggested by the Latin *quin* which translates it.

In the following *but* seems to be a conjunction:

1. *No sooner did he hear her,* but *he burst into a passion.* We now usually say *than* for *but.* We cannot supply *that* after *but,* so as to make the following a noun-sentence. *But* seems a dependent conjunction.

2. *He went* but *I staid at home.* Adversative conjunction.

3 *Ten to one* but *he comes. But* seems put for *that.*

4. *Beshrew my soul,* but *I do love.* Adversative conjunction. Compare "you may do this, *but* I shall do that." It may, however, be equivalent to "nevertheless."

But is an adverb in,

1. I have but one.

2. I can but grieve.

N. B.—Most of the above examples are from Abbott, though not always explained as he explains them.

(*To be continued.*)

IN Florida the school age is from 4 to 21—the length of the school year is 105 days; this is equal to about 5 years' continuous school attendance, reckoning 30 days to the month. Maine, has the same school age, but the school year is 118 days. The school age in Wisconsin allows for 8 years, 4 months and 24 days schooling. New York, New Jersey, Illinois and Delaware provide from 7 years' to 7 years and 11 months' schooling. These are the highest. Massachusetts ranks low and North Carolina lowest, providing for only 1 year and 3 months and 8 days' schooling. Pennsylvania, Maine, Vermont, Connecticut, Rhode Island, New Hampshire, and Massachusetts can shew a daily average attendance of 50 per cent. and upwards of those enrolled as scholars.

It will be interesting to compare these statistics with those for Ontario. With us the school age is from 5 to 21, the school age is about 200 days. This allows about 9 years' schooling, counting 30 days to the month. Our daily average attendance, however, does not rise above 46 per cent. of the number of scholars enrolled.

PUBLIC SCHOOL DEPARTMENT.

[Contributed to, and under the management of, Mr. S. McAllister, Headmaster of Ryerson School, Toronto.]

MODEL SCHOOLS.

EDUCATION has not fallen to the rear in the general advance of everything that betokens a high civilization. In no respect is this more observable than in the change in opinion with regard to the qualifications of teachers. The time is happily now past, when, to secure a teacher's position, failure in every other employment was more a recommendation than a hindrance. Once, the dominie's desk was regarded as a fitting refuge for the ignorant in mind, and the debilitated in body. Now, all this has changed, and for the better. Public men regard the proper training of those who are to be the instructors of the succeeding generation as a matter of paramount importance. We can adduce no stronger evidence of this than the solicitude felt by many Canadian teachers on the subject. And this is perhaps one of the most tangible proofs that advancement in educational matters is with us no mere "Will-o-the-wisp." When the Normal School was opened in Toronto, it was considered necessary to have a Model School affiliated with it, in which the students could learn the art of teaching, under competent instructors. This school, notwithstanding some defects, did good work in the past, and is doing better work in the present, in preparing young people as teachers.

We would be glad indeed if we could make the same remark of the parent institution. But truth compels us to admit that while the work of the Normal School has been properly limited to that of a purely professional character, there has been no improvement in the practical training of those who attend it. The complaints of its students about waste of time, while attending the institution, have been both numerous and loud-spoken, so loud-spoken, indeed, that the Minister of Education is no stranger to them; but hitherto he has remained deaf to all the representations of mismanagement that have been made to him by students and others. Does it never occur to that gentleman that the time and money of students, and the vital interests of the whole community, are seriously at stake in the management of such an institution? If Mr. Crooks will not listen, then teachers will have to resort to the Legislature as the seat of appeal.

Another provincial Model School has been started at Ottawa, in connection with the Normal School there, and placed under the management of Mr. Parlow, who has made an honourable reputation for himself as an educator in the eastern part of the Province. We hope that this institution will establish even a better reputation for itself than the Toronto School has done. These provincial institutions now supplement the work of training begun in the County Model Schools. It is upon the latter that the hopes of the country for well-trained teachers must chiefly depend. So long, however, as the training given to pupil-teachers is limited to weeks instead of years, we must regard the results of their work very modestly. This question of limited training is forcing itself upon the attention of every thoughtful educator, and already there are indications that a change will be urged. Indeed, the Toronto Public School Board has already begun to make a move that promises to be of great advantage to the profession. It proposes to erect the City Public Schools into Model Schools, to let the pupil-teachers belonging to them act as assistant teachers in the junior classes, and take the place of regular teachers who may

be absent; to entrust to the Inspector the usual work required of Head Masters of County Model Schools, except the teaching of elocution and mental arithmetic, and the keeping of the records. "*The term in the Model School shall be* A FULL YEAR," after which the teachers-in-training shall be allowed to attend the Provincial Normal School to receive the necessary training for professional second-class certificates, provided they pass a satisfactory examination in the prescribed professional work for third-class certificates.

Our readers will at once see the important features of this scheme. The length of the pupil-teacher's term of apprenticeship is increased, and at its termination they are given the privilege of at once applying for their professional second-class certificate. While we heartily commend the enlightened action of the Toronto Public School Board in taking this important step—a step which we hope soon to see followed by other cities and the large towns of the Province where Model Schools exist—we regret that it did not benefit further by the experience already acquired in the working of the Model School system, in setting the Head Master free, for instance, from any teaching duty, so that he might have more time to devote to supervising the training of his students. The plan is radically faulty, too, in making all the schools Model Schools; indeed, the word in this sense is a misnomer, unless every teacher employed by the Board is a model teacher. It would have been wiser for the Board to have selected one of the largest schools, where the greatest number of the lower classes is taught, and to have promoted some of its most efficient and accomplished teachers to that school, so that the students, so soon as they had entered on their apprenticeship, would have an opportunity of seeing and learning the best methods of conducting a class. The knowledge thus acquired could then be perfected by practice in the other schools. If teaching has any claim to be considered as an art, based on scientific principles, this is the proper mode of learning it. If the inspector could be ubiquitous, the plan proposed by the Toronto Board would be a good one, for then he could have constant oversight of all the teaching done by the students under him. Failing this, what is to keep them from being in a continual fog by learning, in every school they go to, a different method of managing a class? No doubt in the lectures on education an attempt will be made to teach them the principles of the science, and in those on school management they will be instructed how to apply these principles in practice. But if lectures were delivered until the lecturer was dumb, and the hearers were deaf, they would be a poor substitute for careful practice under a skilled teacher who knows by experience how to apply in the best way the principles of his art in the daily work of the school-room.

We estimate the enlightened action of the Toronto Board so highly that we would like to have seen it made under the most promising conditions for success. Faulty as it is, however, we shall watch its results with a great deal of interest, and though all the good that might have been secured from it is impossible under the clogging circumstances that accompany it, we have no doubt that it is the beginning of a beneficial change in the mode of educating teachers.

HOW TO INFLUENCE SCHOOL LEGISLATION.

THE majority of our local Associations seem not yet to be awake to the fact that a Superintendent whose sole business and aim it was to attend to the interests of education in the Province no longer rules in the Education Department, but that a member of the local Cabinet, as Minister of Education, reigns in his stead. They should remember when they pass resolutions and forward copies of them to him, that he can give heed to them only so far as prudential considerations for the votes of the House, or of his own constituents' permit. Teachers should take a hint from this, and forward copies of the resolutions passed at their meetings, not only to him, but to their own local members. If the matter is one of importance let them even

appoint deputations to wait upon these gentlemen to personally urge their views. Since the office of Minister of Education has become a political one there is no more effective way of giving expression to the opinions and wishes of teachers than the plan above suggested. The Provincial Association at its last meeting set an example in this direction by appointing a standing committee on legislation, whose duty it should be to watch what school legislation goes on in the House, and to suggest improvements.

We venture to assert that had teachers made vigorous efforts during the last session to bring their opinions to bear on the members of the House against the shortening of the holidays, Mr. Crook's mischievous measure would have been defeated.

If anything is to be done in the way of repealing it, no time is to be lost. Let deputations be organized to wait upon the local members, and impress upon them the desirability, nay the necessity, for the pupils' sake, of restoring the holidays to their former length. They might also avail themselves of the same opportunity to put forward their views on the superannuation scheme.

SCHOOL-ROOM WORK.

UNDER this head we propose to insert, from time to time, interesting and practical questions, from a variety of sources, on the work done in an ordinary public school. Our purpose is to supply our readers with matter they may have at hand to supplement or vary their ordinary work. We shall be glad to receive pithy, tentative questions from any source; and should any of our readers receive from their pupils answers to the questions we supply or to others that are worthy of more than a passing notice, we shall be glad to give them consideration.

QUESTIONS FROM THE ENGLISH PUPIL TEACHERS' EXAMINATION PAPERS.

ARITHMETIC.

A dealer bought nine oxen at £11 17*s.* 8*d.* each; one died, and he sold the remainder at a profit of £2 2*s.* 2½*d.* each. What did he gain on the whole transaction?—*Ans.*—£5.

A franc being equal in value to 9¾*d* sterling, what is the value of £0 11*s.* 7½*d.* in francs? *Ans.*—162 francs.

By what decimal does the sum of ½, ⅛, ⅛, ¼, and ⅛ fall short of 4? *Ans.*—.32.

How many times does the sum of 22¼ and 13⅛ contain their difference? *Ans.* 4⅛.

Reduce to decimal forms the following expressions (by cancellation):—

$$\frac{2.004}{.165} \times \frac{3.375}{4}, \qquad \frac{.0295}{3.04} \div \frac{1.18}{.00152}.$$

Answers.—10.125 and .0000125.

A house which cost £3,500 lets for £130 a year; state in decimals the rent per cent. per annum which it pays the owner.

Ans.—3.714285.

A sold a picture to B, who sold it to C at a profit of 5 per cent., who sold it for £1,071, gaining thereby 20 per cent. What did *B* give for the picture? What gain per cent. was the last price on the first?

Ans.—*B* gave £850; 26 per cent.

The interest on a sum of money at simple interest is £7, and the discount for the same time is £5 9*s.* 4½*d.* What is the sum?

Ans.—£25.

I have to-day paid £2,180 in repayment, with interest, of two loans contracted by me at one time—one of £1,163 borrowed at 4 per cent. per annum, and the other of £994 at 4½ per cent. How long is it since the money was borrowed? *Ans.*—92 days.

How much do I realize by speculation, if, investing 50 guineas I gain $\sqrt{4957.5681}$ per cent. on that sum?—*Ans.*—£89 9*s.* 3.66*d.*

GRAMMAR.

(*a*) Give examples of adverbs that are derived from prepositions; (*b*) and of preposition used as adverbs.

Ans.—(*a*) *A*shore, *a*loft, *be*hind, *up*wards, there*about*; (*b*) "We look *before* and *after*." Stand *to*, stand *by*.

The pronouns *which* and *what* are used adjectively and substantively; give examples of both uses.

Ans.—Adjectively: "*Which* things are an allegory." "*What* time the pea puts on its bloom." Substantively: "The blood *which* moves through the arteries is *what* nourishes the body." "The pronouns *which* and *what* are used substantively."

Explain and illustrate the statement that conjunctions fulfil the same part towards sentences that prepositions do towards words.

Ans.—Prepositions shew the logical relation between the notions represented by the words they connect, *e.g.*: The Queen went *from* London *to* Balmoral *on* a railway train. Here *from* shews one relation between *went* and *London*, *to* another and an opposite relation between *went* and *Balmoral*; while *on* shews another between *went* and *train*. Similarly, conjunctions shew logical relations between the ideas expressed by sentences, *e.g.*: The war rages *and* the people are happy. Here we are led to believe that the happiness of the people results from the war raging; now, change the conjunction to *but*—The war rages *but* the people are happy. We are told here that the people are happy not by reason of the war, but in spite of it. Again, put *though* in place of but—The war rages, *though* the people are happy. Here the relation between the ideas expressed by the two statements is again different.

"The north wind spends his rage; he now shut up
Within his iron cage, the effusive south warms the whole air."

(*a*) In analyzing the above how would you take the nominative absolute that occurs in it? The nominative absolute phrase, "He now shut up," is an extension of time, equal to the adverbial sentence, "When he is now shut up," and it qualifies the verb *warms*.

(*b*) Give other examples of a similar construction. *Winter coming on* the birds of passage disappear. *The rightful king a fugitive*, the usurper easily secured the throne.

GEOGRAPHY.

(*Adapted from the English questions.*)

What is the nearest railway station to your home? By what lines of railway should you travel to go to Toronto, Ottawa, London, Hamilton. Trace a journey to *one* of these places as minutely as you can.

Describe fully and simply the chief objects of interest to a traveller in Italy. (Venice with its canals, buildings—as St. Mark's—and works of art; Rome with its ruins—as the colliseum—its paintings, sculpture and architecture; Naples with its beautiful bay, and Vesuvius in the distance; Pompeii, the resuscitated city; Florence with its works of art; Pisa with its leaning tower; Milan with its Duomo; the clear blue sky, the semi-tropical fruits, the dark-complexioned peasantry with their smooth speech and partiality for music, and their significant gestures. Describe the physical features of St. Helena, Mauritius, Ceylon, Labuan and Cyprus. Describe the course and physical character of the Jordan, and the peculiarities of the Dead Sea. The Arabs in describing the Lebanon mountains say that winter rests on their head, spring on their bosom, while summer lies sleeping at their feet. Explain this.

EUCLID AND MENSURATION AND ALGEBRA.

The two triangles formed by drawing lines from any point within a parallelogram to the extremities of two opposite sides, are together half of the parallelogram. (Authorities used, I. 31; I. 41.)

The length of a rectangular field is to its breadth as 6 to 5. One-sixth of the field was planted, which left 625 square yards for ploughing. What is the length?

Ans.—30 yards.

Find in yards the diameter of a circle whose area is 11 acres 3 roods and $28\frac{7}{22}\frac{6}{5}$ poles. *Ans.*—271.09 yards nearly.

Multiply $a-b+c-d$ by $a+b-c-d$ and subtract $(a-d)^2-(b+c)^2$ from the product.

Ans.—0.

Simplify

$$\frac{2a}{(b-2a)^2}-\frac{b-a}{b^2-5ab+6a^2}+\frac{2}{b-3a}.$$

Ans. $\frac{b}{(b-2a)^2}$.

Find the G. C. M. of $5a^3+2a^2-15a-6$, and $4a^3-7a^2-12+21a$.

(Arrange the terms according to the *ascending* powers of a, beginning with 6 and 12.)

EXAMINATION QUESTIONS.

HAMILTON MODEL SCHOOL.

(*Continued from page 531.*)

Mental Arithmetic—Time, from one to two minutes each.

I.—If to my age you add three-fifths of it, and 15 years, the sum will be 39 years; find my age. Value 8.

II.—How many yards of carpet, 27 inches wide, will cover a floor 18 feet 9 inches long and 12 feet wide? Value 10.

III.—Three-fourths of 56 is seven-eighths of how many times 16? Value 10.

IV.—When $400 is paid for 25 acres of land, what will 1 acre 1 rod cost? Value 8.

V.—Square 15, subtract 25, divide by 50, multiply by 225, extract the square root, add 34, extract the square root and multiply by 250. Value 8.

VI.—Find the value of four-fifths of $6\frac{1}{4}$, minus three-sevenths of 14, plus five-eighths of seven-tenths of 2, and two-sevenths, minus twenty-five forty seconds of twelve-fifths plus 8. Value 12.

VII.—A pile of wood 64 feet long, 6 fee wide and six feet high, sells for $72, what is the price per cord? Value 10.

VIII.—How many boxes, each 9 inches long, 6 inches wide, and 3 inches deep, can be packed in a cubic yard?

Hygiene—Time, one hour.

I.—Describe and explain the functions of the organs of respiration in man. Value 5.

II.—In what respect does the air breathed out from the lungs differ from common atmospheric air? Value 5.

III.—Point out the different ways in which the air of the school-room is rendered impure, and the best plan of ventilating it. Value 5.

IV.—What is the difference between an artery and a vein? Between arterial and venous blood? Explain the functions of the heart, arteries, and veins, in the circulation of the blood. Value 10.

V.—Give reasons for thinking that exercise is necessary, and generally beneficial to the health. Value 5.

VI.—What is digestion? Explain briefly the changes that food undergoes in the process of digestion. Value 10.

VII.—Give brief rules for preserving the health of the teacher. Value 10.

Arithmetic for Fourth Class.

I. The sum of $90 is paid for a piece of work. *A* works alone 4 days, then with *B* four days, and then with *B* and *C* 6 days; how should the money be divided?

II. Reduce $\frac{.142857}{3.6428571}$ to 6 places of decimals.

III. I spend .007 × 40 of my money and find that the remainder is $90; what was the original sum?

IV. *A* can do as much work in 6 days as *B* can in 5 days; together they do a piece of work in 40 days. How long would it take each by himself?

V. Required the cost of papering the walls of a room 18 ft. 9 in. long by 14 ft. 6 in. wide, and 10 ft. high, at 20 cents per roll of 5 yards, allowing for two windows each 6 ft. by $4\frac{1}{2}$ ft., a door $6\frac{1}{2}$ ft. by 5 ft., and the other parts of the woodwork, which are equal to $\frac{1}{10}$ of the remaining surface. The paper is two feet wide.

VI. A man spends £50 in buying eggs at $11\frac{1}{2}d.$ per dozen, and sells them at $2d.$ each; how much does he gain?

VII. How many bricks 9 inches long, 4 inches wide, and 3 inches thick, will be required to build a wall 60 feet long, 8 feet high, and $2\frac{1}{2}$ feet thick, allowing for two doors, each 6 feet by 4 feet, the mortar being equal to $\frac{1}{11}$ of the remaining wall?

VIII. $\frac{5}{8}$ of a number exceeds $\frac{2}{3}$ of $\frac{3}{4}$ of it by 26; find the number.

IX. Simplify $\left\{\frac{2\frac{1}{2} - \frac{3}{5} \text{ of } 1\frac{1}{4}}{\frac{1}{2} \text{ of } 3\frac{1}{2} + 1\frac{1}{4}} - \frac{1}{2\frac{1}{2}}\right\} \div \frac{15\frac{3}{4}}{26\frac{1}{4}}$.

X. Multiply .28175 by 1.48 and divide the result by .00037.

COUNTY OF VICTORIA MODEL SCHOOL, OCTOBER, 1880.

(*Continued from page 531.*)

HYGIENE.

Examiner—John Shaw.

1. Name the organs of respiration and circulation.

2. Give Buckton's classification of human food.

3. In cases of fainting, artery bleeding, and partial drowning, about the school house, what immediate steps would you take?

4. The attitude in studying, drawing, writing and sewing, is controlled by what hygienic rules?

5. What games and modes of exercise and recreation would you encourage about a rural school?

6. Write a note upon:—(1) The causes by which the health and constitution of children at school are impaired, and the best modes of counteracting the same. (2) School light, temperature and ventilation. (3) The hygienic results of a growing child daily carrying to and from school a satchel of books, six to ten pounds weight. (4) The hygienic tendency of the school programme of the Province of Ontario.

MENTAL ARITHMETIC.

Examiner—W. E. Tilley and James White.

I. If $1\frac{1}{4}$ pounds of coffee cost 60 cents, what will 4 pounds cost?

II. One person spends $7 in coal at $9 a ton and another $9 in coal at $11 a ton; what fraction of a ton has one more than the other?

III. By selling a horse which cost $72 I gained $7\frac{1}{2}$ per cent. of the selling price. Find the selling price.

IV. John bought a number of calves for $80, he sold 5 and afterwards $\frac{1}{3}$ of the remainder at cost for $40. How many had he bought?

V. At $6\frac{1}{2}$ per cent. what will be the bank discount on $144 for $4\frac{1}{2}$ months?

VI *A* bought 3 per cent stock at $88\frac{1}{2}$ and sold it to *B* at $88\frac{1}{4}$ gaining $27. Find the annual income from the stock.

VII. Five men hire a coach and when four more join them the cost to each is reduced $1.20. What was paid for it?

VIII. At what must I mark goods that cost 60 cents per yard, so that I may take off 10 per cent. and have a profit of 12 cents per yard?

IX. If the interest on $900 for 3 years and 4 months is $70, find the rate per cent.

X. Bought an article for $1.06 on 12 months' credit, and sold it at once on 9 months' credit, so as neither to gain or lose, money being worth 6 per cent. Find selling price.

THE place of iron as sleepers for railways is likely soon to be taken by glass. But the glass must be fitted for this purpose by having its brittleness changed into a fibrous toughness. This is done by melting the glass, moulding it into the required shapes, submitting it to a high temperature, and immersing it, thus heated, in a cold oil bath. The toughened glass produced in this way is said to possess enormous powers of resistance a plate of about one inch in thickness not being broken by a weight of nine hundred pounds let fall upon it from a height of seventeen feet. These glass sleepers have been made in pieces, each three feet long, and having their upper surfaces suited to the inferior surfaces of the rails; and the experiments already undertaken and carried through have been eminently successful. As glass does not oxidize or corrode in any way under ordinary conditions, the tempered or fibrous variety will, doubtless, for many purposes, be preferred to iron, *i.e.*, if that tough, fibrous, non-crystalline state be proved to be a *permanent* one, and not easily altered by friction.

TEACHERS' ASSOCIATIONS.

CHRONICLE OF THE MONTH.

WENTWORTH TEACHERS' ASSOCIATION.—The semi-annual meeting of this Association was held in the Collegiate Institute, Hamilton, on Friday and Saturday, the 15th and 16th of October, Mr. W. H. Ballard, President, in the chair. The programme was both interesting and practical. Mr. Cruikshank delivered an excellent address on Mathematical Geography, illustrating his ideas by a set of instruments. Mr. Smith, Public School Inspector, addressed the Association on the Best Methods of Teaching Reading to the junior classes. Dr. Hare followed with an excellent paper on the Schools of Germany, in which he traced the growth of the educational system of that country, and explained the curriculum of studies pursued in the different grades of schools. He gave special prominence to the severe training to which teachers are subject, before they are permitted to take charge of a school. Mr. G. W. Ross, M.P., took up and discussed fully the subject of "Mistakes in Teaching Reading."

The Association met in the evening and after listening to a choice musical programme, provided by Prof. Johnson and the Glee Club of the Collegiate Institute, Mr. G. W. Ross came forward and delivered an able and instructive lecture on "Intellectual Forces." The lecture lasted about one and a half hours, and was frequently applauded.

The Saturday morning session was opened by a discussion on the Best Method of Teaching Composition. Mr. McLean, of Dundas, opened the discussion, and was followed by Messrs. Bissonette, Harald, Sheppard, Johnson, P. Smith and Inspector Smith. Mr. G. W. Johnson, of the County Model School, read an excellent paper on Teaching History, after which the length of school hours was briefly discussed by Inspector Smith. The attendance was very large, about two hundred teachers being present from the county and city. After the usual routine business had been concluded, the Association adjourned.

NORTHUMBERLAND TEACHERS' ASSOCIATION.—The semi-annual meeting of this Association was held in Cobourg on Thursday and Friday, 28th and 29th November. It was well attended, and on the whole proved one of the most successful ever held in the county. The subject of "Recent School Legislation," was ably introduced by Mr. J. Swift. After a somewhat animated discussion, the following resolutions were carried unanimously. I. Resolved, that we the teachers of the County of Northumberland, in convention assembled, do deprecate the action of the Local Legislature in the Province of Ontario, in permitting the shortening of the school holidays at midsummer, for the following reasons: 1. The best educators of the day are unanimous in their conviction that the interests of education will be better served by shortening, not only the school term, but also the hours of daily teaching. 2. That the depressing influence produced by confinement in the school-room during the period referred to is more apt to retard than promote pupils in their studies, and is destructive to the physical well-being of both teachers and pupils. 3. That statistics shew that the attendance during that period, especially in country sections, is smaller than during any other portion of the year. 4. That as there is no Government grant allowed for attendance during the per-

missive period, no pecuniary benefit can accrue to the sections which may adopt it. II. Resolved, that in the opinion of this Association, First and Second Class and Intermediate candidates, who pass on the majority of the subjects required, and fail to pass in the other groups by a percentage not less than half that required, should not be again compelled to write on the groups in which they have already passed, but only on those groups in which they have failed. III. That a copy of these resolutions be forwarded to the Minister of Education.

D. E. STEPHENSON,
Secretary.

CONTEMPORARY LITERATURE.

THE HISTORICAL READER. London: T. Nelson & Sons; Toronto: James Campbell & Son.

THE publishers intend this manual as a Supplementary Reader, to be used in schools where history is taught. It consists of extracts in prose and poetry, bearing upon remarkable persons and events in English History, made from the works of authors of the highest standing. Though we do not endorse the statement in the preface that "the specimens of standard authors which it (the book) contains will encourage a taste for good literature," we certainly do think that putting such high class literature before our advanced classes will familiarize them with a good English style; and this is greatly needed to counteract the bad effect of the slovenly writing to be found in too many of our school text-books. When we state that Hume, Green, Robertson, Macaulay, Kinglake, Carlyle, Froude, Tennyson, Mrs. Browning, and Cowper, are among the authors laid under contribution, our readers will infer that judgment has been used in making the selections. Among the subjects and persons treated of are the Roman Conquest, the English Conquest, Bede, Alfred, Death of Becket, Magna Charta, William Caxton, Mary Queen of Scots, The Armada, the Heights of Abraham, the Reform Bill. In further proof of the earnestness of the publishers to produce a really good book, we have an extract from such recent works as Justin McCarthy's "History of our own Time," and Kinglake's "History of the Crimean War," with a diagram of the battle of the Alma. Like the others of the Royal School Series, this book is enriched by vocabularies of difficult words, by explanatory notes, and by sketch maps. We can strongly commend it for private reading, as well as for a class book in our schools.

A GRADED SPELLING BOOK, by F. H. Harrington, Superintendent of Public Schools, New Bedford, Mass. New York: Harper Brothers.

A CASUAL glance at the contents of this book shows that it has been prepared by one who has had experience in school-room work. Its distinguishing features are seen at once. 1. In the early pages, the words for spelling are printed in script, as well as in the Roman type. 2. It is really a progressive spelling book. 3. Attention is confined in the ordinary lessons to words most frequently used, not only in ordinary intercourse, but in the common studies of the school-room. 4. An attempt is made to teach the proper use of words, by printing a few promiscuously, and subjoining elliptical sentences requiring their use. We think this, as an exercise, is so admirable, not alone in spelling, but in composition, that we give an example from page 2, second part.

Chiefly, preserved, crocodiles, reptiles, consist, lynx, sandwich, lizards, frigates, highly, remarkably, cracker, sardine, esteemed, slices, toads.

Turtles, —, —, tortoises and — are called —. The — is a kind of cat, and has — sharp sight. Vessels of war — — of ships of the line, —, sloops, brigs, and schooners. A — is a small fish. When — in oil it is — — as an article of food. A —is a slice of meat between two — of bread. A — is a kind of hard biscuit.

We quite agree with the author that "it is idle to require a pupil, however young, to reproduce print forms." It is idle, because very little use can be made of what is thus learned afterwards. While, by learning to reproduce words in script, children are actually learning to write; and if they have to leave school before they reach the classes where writing is formally taught, they will have acquired enough knowledge of writing to express themselves, though it may be imperfectly.

Should a second edition of this book be called for, we would advise the author to omit giving the meaning of those simple words that are alike in sound, but different in meaning. These, left to the teacher, can be explained more effectively and more fully.

In the lists of Christian names the author has certainly not confined himself to those most in use. Very few scholars are ever likely to use such words as Alonzo, Ichabod, Elizur, yet these and many more such are inserted, while such names as Henry, often miss-spelt Henery, Arthur, Rachel, Victoria are omitted. The common word analysis is left out of the grammatical terms, though prosody, a word little used, finds a place. The convenience of the scholar has certainly not been considered in the binding, for it will be impossible to keep the book open at the place from which a lesson is to be copied without some artificial means. This is a fault too common in school books.

METHODS OF TEACHING: A Hand-Book of Principles, Directions and Working Models for Common School Teachers, by John Swett, Principal of the San Francisco Girls' High School and Normal Class. New York: Harper & Brothers, 1880.

THIS book, says the author, in the Preface, is intended—

1. For use in Normal Schools and Normal classes as a basis for instruction in methods of teaching.

2. For the use of those who intend to become teachers without taking a course of professional training.

3. For experienced teachers who believe there is something to be learned from the suggestions of others.

The characteristic features claimed for this manual are:

1. Its strict limitation to the essential of Common School instruction.

2. Its condensed and specific directions.

3. Its working models for beginners.

In this bright and attractive volume we have the outcome of the matured wisdom and experience of the Common School patriarch of California. Mr. Swett covers, in a methodical and lucid manner, the whole ground sketched in his preface. He lays under contribution the labours of Mill, Spencer, Tyndall, Froebel, Pestalozzi, Bain and other great masters of pedagogy, and gives under the proper heads of his subjects laconic digests of their teachings. Without attempting to enlarge upon the many excellent features of the work, we shall simply summarize its merits by saying that it is a practical hand-book of common sense in the school-room. We heartily recommend it to all young teachers, and to all who rightly think that "something is to be learned from the labours of others." It will be found to be an earnest, stimulating, and suggestive work, and its perusal cannot fail to add to the mental equipment of the teacher.

REPORT ON EDUCATION, by E. Seguin. Second Edition. Milwaukee, Wis.: Doerflinger Book and Publishing Co., 1880.

HORACE gives us the order of a Roman entertainment in the phrase *ab ovo usque ad mala*—"from the egg to the apples." Verily M. Seguin's bill of fare sets out *ab ovo:* he begins with pre-natal impressions! The children of the future, are to be treated like the princes of the House of Hapsburg, and placed under careful training before their

birth. We hasten to relieve our readers by assuring them that M. Seguin does not approve of competitive examinations at this stage or at any stage.

The author was United States Commissioner on Education at the *Welt Ausstellung* (World's Show), of Vienna, in 1873; and the educational exhibit of that occasion supplied M. Seguin with the frame-work of his book. What is very rare in works on education, the author shews himself familiar with the bibliography of his subject. He rightly traces the Kindergarten and the method of object teaching, past Frobel and 1849, up to Rousseau and his *Emile*. In that remarkable book, eighty-five years before Friedriech Frobel established his play-school, Frobel's methods had been clearly anticipated. A French modification of the same system is seen in the *Salle d'Asyle*, of Paris, of Brussels, and other large cities. This form of custodium school for indigent children was originated by Madame Pape-Carpentier. The hours are 9 a.m., to 5 p.m. The children are washed, fed, play-taught, rested, soup-fed, play-taught again, dismissed. Cradles are provided for the young philosophers, who find much *play*—a weariness to the flesh. The value of object-teaching at all stages of instruction is now conceded. Agassiz once introduced a briliant series of lectures by asking his students to bring next day each of them a grasshopper in his hand. M. Seguin would have school trustees consult scientific advisers on the furniture and sanitary condition of their buildings. The school-desks approved by the London School Board were made under the direction of the eminent oculist Liebreich. The Swedish school-desk, slightly concave in front, approaches the pupil when he desires to write, and it can be raised or lowered, so as to adapt itself to his size. Sanitary conditions are less considered in schools than furniture: so our *foci* of intelligence are often *foci* of typhoid, scarlet fever, diphtheria and other filth-diseases.

The special features recently developed in European education are pleasantly told. Switzerland is trying to arrest emigration, and to bind her children to their homes by teaching horticulture as part of ordinary school work. France has discovered that Victor Cousin correctly foresaw the effect of Prussian education and French ignorance. "Those who laughed at the prediction in 1840, tore their hair in despair in 1870." Italy, after a long nightmare, has awoke, and with returning consciousness of her ancient renown, again aspires to a high place in art as well as literature. Glass-ceramic has revived at Venice; mosaic at Rome; statuary at Florence; painting everywhere.

Public parks might be made to yield instruction as well as amusement. In Boston, the gardens adjoining the historical "Common" are used for the illustration of school and college lessons. Kew has seventy-five acres reserved for the use of students. The *Jardin des Plantes*, of Paris, was organized and reorganized by Buffon, Daubenton, Cuvier, De Jussieu, Lamarck; and became the laboratory of De Blainville, Cuvier, Lacepede, in comparative anatomy; of Claude Bernard and Brown-Séquard, in physiology; of Becquerel, in electricity; the open-air studio of the sculptors Mène and Barre.

On the whole, this is a thoughtful and wholesome book, even if its style is *bizarre* and Carlylese.

NOTES OF LESSONS AND HOW TO WRITE THEM. By a Head Master under the London School Board. 5th edition, 132 pp. 12mo. London: Moffat & Paige.

THIS is a valuable little manual and will afford much assistance to those who are preparing for the profession of teaching. It consists of a series of notes of lessons, in Arithmetic, Grammar, Geography, Natural History, etc., presenting in parallel columns the matter of the specimen lesson and the method suggested of teaching it and of placing it on the blackboard. In the prefatory matter some practical hints are given as to the plan of making abstracts of the lessons for use by the teacher in the school-room, together with some valuable counsel, an extract of a portion of which we here append:

"General Instructions to be borne in mind

and acted upon, when preparing and giving lessons :—"

"1. Prepare each lesson carefully beforehand, in order to be able to teach without reference to books, notes, etc., and have all the necessary apparatus ready before the lesson commences. If the teacher do this he will gain confidence when before the class and be better able to maintain good discipline.

"2. Place the blackboard, map, or other object of illustration in such a position that the whole of the class can see it, and at a sufficient height from the ground.

"3. Place yourself in the position before the class from which you can best see and command every part of it, and never leave your place to walk from one part to another unless strictly necessary. A teacher continually on the move can never obtain the attention which is necessary for a successful lesson. If only a portion of the class feel that the teacher is addressing them at a particular moment, the attention of the others will not be kept up. One great object of the teacher should be to make every pupil feel that he or she is addressed, and that each one is under the teacher's eye during the whole of the time occupied by the lesson.

"4. When teaching, give all your explanations and corrections in a clear distinct manner, addressing the whole class and not merely an individual child. Be careful that the answer given by the child is audible to all the other children.

"5 Catechise in a lively, cheerful manner, in order to retain the interest of the children. Discourage answers from several children at the same time. If this be not observed there will be confusion in the class. Do not allow a few quick, clever children to answer more than their share of the questions, but be careful to exercise the mind of each. To ask an inattentive child a question on that part of the lesson of which you have just been speaking, will be found in most cases a sufficient rebuke. As a rule avoid questions which only admit of 'Yes' or 'No' for reply, as these answers are often found to be mere guesses. Do not be too quick in assisting scholars to answer, for by so doing they are often prevented from thinking for themselves. Try rather to put the question in another form. Encourage the pupils to answer in their own words. By so doing the teacher is able to ascertain correctly whether the class understand the matter of the lesson, and whether they are being trained to express their thoughts readily.

"6. In correcting error it is often the wisest and best plan to address the explanation to the whole class, for although the error may have been committed by one pupil on this occasion, yet all the others were liable to have fallen into the same mistake.

"7. Do not be impatient with the slow ones. All must be taught, and must be made to produce the required good results."

THE ITALIAN PRINCIPIA — PART I.—A FIRST ITALIAN COURSE, CONTAINING A GRAMMAR, DELECTUS, AND EXERCISE BOOK, WITH VOCABULARIES ON THE PLAN OF DR. WM. SMITH'S "PRINCIPIA LATINA." New York : Harper & Bros.; Toronto: James Campbell & Son. 1880.

THIS work is a reprint, in Messrs. Harper & Brothers' best style, of a text-book issued by Murray, the London publisher, from the pen of Signor Ricci, Professor of Italian in the City of London College. As the English edition of this valuable school-book may, from the very slight attention paid to the study of Italian in this country, be unknown to many of our readers, we may say that it presents in one volume, in the form and method of the famous *Principia Latina*, all that the beginner will require for some time in the study of the Italian language. Compared with the Italian grammars in common use, it has some features of special excellence, such as the very judicious arrangement and printing of the matter, the exposition of case-formations with copious examples, the idioms of current speech, *e.g.*, those of *avere* and *essere*, the arrangement of the verbs in general, and the classification of the irregular verbs in particular, the vast corpus of examples and exercises, and the exposition of the affinities between Latin and Italian. It has all the good features of Zotti, Elsoe and Monti, and will be found, we think, for the purposes of learning to write and speak the language, a better book than any one of them. We would be glad to find that this cheap and beautiful reprint of a capital text-book would induce many to form an acquaintance with a language so much praised of Camden and Byron, so often heard, too, in concert halls and opera houses, and in not a few of our drawing-rooms.

An eminent authority,* quoted in our last issue, has recently repeated what is well-known to scholars, that a thorough knowledge of Latin would enable the possessor after three weeks' study, to read with ease any of the Romance languages. May we not then hope that as facilities multiply amongst us, that many of our young ladies in the schools and seminaries, not to speak of undergraduates at the universities, and all who keep up a little post-graduate reading in "Moderns" will add Italian to their French and German, and be charmed no less with "La Villeggiatura" than with "L'Allemagne" and "Stumme Liebe?"

A LATIN GRAMMAR FOR SCHOOLS. by Henry John Roby. London: Macmillan & Co.; Toronto: Willing & Williamson. 1880.

THIS book is in the main an abridgment of the author's famous grammar of the Latin language from Plautus to Suetonius, "some parts being reproduced with slight omissions, some parts being largely reduced and others again being re-written. Abridgment though it is, it is yet a formidable looking book to be put into the hands of ordinary school-boys, crammed as it is with matter, from Book I. on Sounds, through inflexions, word-formation, syntax, supplement to syntax, appendices, to translation of examples in syntax. If this work is suitable to the boys in Eton, Harrow, Rugby, and other English schools, and we make no doubt it is, at least to the upper forms in these schools, then nothing can more clearly shew the great, but we hope lessening, distance between the classical attainments of the English school-boy and his Canadian contemporary.

It is almost needless to state that this work proceeds to a large degree along the lines laid down in the *Public School Latin Primer*, and that it deals with every topic under discussion, in a strictly scientific manner. A single specimen (p. 88) will suffice.

"DA-R-E-M-US is the first person plural, active voice, imperfect subjunctive, of the stem DA—*give*. The sound R denotes past time, E the mood of *thought* (instead of *fact*), M the speaker himself, US the action of others with the speaker. Thus DAREMUS analyzed is *give-did-in thought-I-they*. If for -US we have -UR (DAREMUR) the speaker and others are passive instead of active."

Without attempting to do more than to draw the attention of our readers to this excellent hand-book of the Latin tongue, we may indicate as features worthy of special mention, the fulness and completeness of the word-forms even in the matter of Greek words occurring in Latin authors, all developed in strict conformity with philological principles, the almost exuberant richness of the syntax, especially of the subjunctive mood, the chapter "of reported speech, the translation of the examples in syntax, gathered together in an appendix, and forming no less models of rendering into English than an invaluable praxis for Latin composition, and the exceedingly copious and systematic index that greatly enhances the value of the book. We hope to see the day when such a work as this will be a suitable text-book for our High Schools generally. Doubtless it will soon find its way into the hands of the *duces* in our best schools. Meantime we commend the work to the notice of those engaged in teaching Latin, and to the Honor-men at the Universities. In "complete possession" of this text-book, the student need not fear the stiffest Paper on Latin grammar that may be put before him. Unless we are greatly mistaken, it will be *the* School Latin Grammar of the next decade.

* Professor Goldwin Smith.

EDITORIAL NOTES.

THE PRESENT EDUCATIONAL SITUATION.

THE remark is neither new nor profound that this is an imperfect world. The year now come to a close has, in matters educational, added much to our experience of this fact. From the top to the bottom of our School system, imperfection, and not a little that is worse, have been dragged out into view. The age, perhaps is an over-critical one, and the year that has passed has spared nothing. But it is well now and again to have a year of reckoning. Periods of somnolence and complacent jog-trotting are never healthy. One particular characteristic of the past year will have struck most of our readers, viz.: the growing disposition to overhaul things, and an impatience with the condition of *laissez-faire*. This spirit has particularly manifested itself in the domain of education. For years our men and systems have gone on in a given groove, and the educational administration has felicitated itself and been happy. Lulled by the times it grew "wooden" and autocratic, and officialism and circumlocution flourished. Then came the disturbing year, and with it the present period of dissatisfaction and unrest. Now, not only the machinery of instruction is being overhauled, but there is a disposition to reconsider its purpose and revise its work. With regard to the machinery of education, THE MONTHLY has already given voice to the protest against its inefficiency and partizan character. Mr. Crooks, we have frequently admitted, is industrious and well-meaning, and as the figure-head of the Department bears himself well to outside observation. Among those who have professionally to do with him, however, the almost universal opinion current is, that he is not the man for the office. Few, we are repeatedly informed, care to have any personal relations with him, and correspondence with the Department is rarely satisfactory and never pleasant. If we weigh the acts of the man against his manner, we do not improve the picture, for the Minister is unfamiliar with his work, vacillating and inept in dealing with it, and unyielding when, as is often the case, it is wrongly done. A politician, and a party man, he imports into his office the tactics of the one and the prejudices of the other. The scandal connected with the Central Committee, which he has suffered so long to taint the Department, is proof of this. Whatever shuffle he may now make with reference to this body should not exempt him from parliamentary arraignment on the charge. His attitude in regard to the disposition of Upper Canada College, also shews how little he is in sympathy with those whose interests ought to be his. That he should so handicap the institutions that are the best fruit of the school system proves him disloyal to his office and unjust to the profession. The lax, perfunctory work of the Normal Schools, and the University imbroglio, fill up the measure of his cup.

All the while Education cries out for a competent head—one who will not be under the illusion of his office, nor unskilled in the duties that belong to it. Rarely has there been greater need of a man of ability for the post; and in every branch of the system the need is felt. A man of ideas, of enthusiasm in the work, and devoted to its service, was never more a desideratum of the times. The whole educational system is in need of revision. The profession is overcrowded, and the facilities to enter it are greater than the need of the country calls for. The standard

of admission, moreover, is low, and the emoluments of the teacher are consequently poor. How to meet and deal with these defects, as well as to readjust the programme of studies to the common-sense views to which the public mind is now returning, calls for the action of an able and large-minded administrator. The lack of thoroughness of teaching in elementary subjects, and the time misspent in studies of a fanciful and impractical character, also demand attention. It is more and more clear that we must be satisfied with a less ambitious education, and what is taught should bear better fruit. The forcing system applied to all and sundry is assuredly bad. It is of advantage neither to the pupil nor to the country. It were better to have a lower and more level degree of culture, and let that be sound and not artificial. Even in a college education there is much of the latter. We miss the fondness of learning for its own sake, and there is too much of that which tends to create a prejudice against honest labour and to erect artificial social distinctions. Education will naturally elevate the sphere of a man, but it should also elevate his work. It should be the aim of education, that the farmer shall become a more scientific one, and the mechanic one of greater skill—not that either should be other than he is. It is the weak point of our school system that too many of the population who receive its benefits are educated out of the sphere to which they socially belong. Such a course withdraws from the class their picked men and choicest leaven—too often, alas, without improving their condition. These, and such like problems, are fast becoming the questions of the time. Would that we had a man to deal with them!

THE CENTRAL COMMITTEE.

THE current number of our contemporary, the *Canada School Journal*, which advertises "Powerful Educational Essays!" (though it promises nothing in the way of grammatical or orthographically-correct 'ones) as an attractive feature of the publication, has a flattering and, we suppose we are expected to say, powerful obituary notice of the Central Committee, whose demise the Minister of Education has just determined on. The decision of Mr. Crooks officially to wipe out of existence the Central Committee, as at present constituted, we may safely hazard the statement, is no act of his own volition, or rather of his own suggesting. The truth is, it has been forced upon him by the scandal created by the acts of some of the members of the Committee, and is obviously a political stratagem to ward off aggressive criticism at the approaching session of the Local Legislature. No doubt our legislators will see Mr. Crooks's motive in its proper light, and will not allow him to escape censure for the political partizanship which held his hand from the decapitation of the offending Committee. men when regard for official propriety, integrity of conduct, and the purity of the educational administration of the Province called for instant and summary action. In the *School Journal* article, which consists mainly of a piteous appeal for the diversion of the expectant stream of public gratitude towards the advisory body of the Minister, rather than towards the Minister himself, we are told, as an excuse for the long retention in office of the Central Committee, "that it was necessary for the due completion of important changes" (in the educational system) "that the same hands should carry on the work from first to last. Any change in the *personelle** (*sic*) of the Central Committee," it is added, "would

* The unfamiliar form of this word, in the sense, at least in which it is used, will be no surprise to our readers who are acquainted with the orthographic coinages and the playful eccentricities in spelling, which are so eminently characteristic of our contemporary. It occurs to us, however, to ask if the 'Directing Mind," when he penned the article, which we take to be his, imagined that the word took on a feminine termination and was proper to be used as applied to a body which we have an idea he wished to represent to the coming historian as a female conclave, and thus fasten upon the other sex the disgrace which has fallen upon the Committee under the present educational *regime*. However this may be, the 'shaky spelling" in the article indicates the limitations of genius, and suggests that as Nature has drawn the line of economy of gifts, in the case of the Senior Inspector, at orthography, English as well as French, it is folly to continue to entrust the examination of the schools in *all* subjects to an Inspector who, if anything, is a specialist, and who, particularly in the more practical departments of education, is signally lacking in that broad general culture so essential to the efficient discharge of the duties of one holding his position.

have disturbed the crystalizing (*sic*) process." To this argument we could have little reasonably to say, had the labours of the Central Committee been confined to the public service, and not, as was the case with some of its members, to the service of their own pocket and that of a publishing firm with which they had intimate personal and business relations. But, fortunately for the Province, in the discreditable state of things that came to light, there *was* a disturbance of this pretty "crystalizing process" which really meant, as our readers know, the introduction into the schools of all the publications of a favoured house in the trade, and the ejectment with mathematical certitude of every work in which the members of the Committee or their publisher-colleague had not an interest. That this iniquitous design was happily frustrated, we have to thank neither the Minister nor the members of the Committee whose hands were clean. Mr. Crooks, at last awakened to a proper sense of the venality of his advisors, now wishes to shew how keen is his perception of the dishonour attaching to their actions, and proceeds to pass a sponge over his Council Board, which he hopes will clean the slate of its dirty record. We are honest when we tell him that we trust it may; but we shall be much surprised if the tracings of the scandal be not still legible to the scrutiny of Parliament, and if it fail to insist upon more radical changes in the Department under his charge than any he has so far contemplated. Complacently, and with a becoming submission to fate, the writer we have already quoted adds, that "it is very advisible (*sic*) now that the examination system is thoroughly organized by the labours of the Central Committee, to give the system the benefit of a rotation of Examiners." Yes, it is very *advisable* (as we venture to spell the word); and it is a pity that in the interest of education, the plan of a rotation of Examiners was not hit upon long ago. But the present crisis in our educational affairs to which we have here and elsewhere in the present number alluded, necessitates a more thorough reconstruction of administrative machinery than Mr. Crooks designs in introducing this change; and we are not unmindful of what *real* service the Central Committee has rendered to the country, in giving expression to this opinion.

THE "BYSTANDER" ON EDUCATIONAL MATTERS.

Of the subjects of comment (ever remarkable for their wide range and scholarly handling) in the new number of the *Bystander*, two will be found of supreme importance to our readers, viz., those entitled "Public Education in Ontario," and "Upper Canada College." Both are referred to in view of their forming the subjects of debate in the forthcoming session of the Ontario Parliament. They are treated of briefly but suggestively, and with a conservatism of utterance befitting the importance of the subjects, and manifesting mature and thoughtful views in regard to them. Disavowing any desire to sit in judgment upon the educational administration of the Province, the distinguished writer expresses the opinion that as our school system has in some degree been experimental, "the time for reviewing the results of the experiment may have come." With this apology, in a few sentences, he touches upon the cost of our school system, the programme of studies, over-education, co-education, the danger of over-crowding the professions, and other aspects of the subject of a disturbing and disquieting character—adding "that a Commission of Inquiry would not be premature, and might be of use, at all events, in dissipating misgivings, if they are unfounded, and assuring us that we are in the right path." Referring to the Executive of the Department, the writer deprecates "the connection of education with politics and cabinet government," and truly says, that the experiment of a Minister of Education "has not been wholly successful." He adds that "there are some who think it advisable to restore the Council of Public Instruction, or to institute some body of experts, mature in judgment, unconnected with politics, and placed above the suspicion of outside influence, for such functions as it

might be fitted to perform." There can be little doubt, indeed, of the urgency of action in this direction, which we ourselves have *repeatedly* suggested.

With regard to Upper Canada College, the learned writer correctly affirms that "it is difficult to vindicate on principle the duplicate system of local High Schools combined with a great central college for the same class of pupils. The College is, in fact," he adds, "a survival from the educational era before High Schools," and, reading *between the lines, there is little difficulty in* concluding that the writer's opinion is that the institution should be abolished. This inference is strengthened by the remark, with which the writer concludes, that the endowment, should it be placed at the Government's disposal, would be wisely expended in forming a College for Women, "where Art of every kind and grade, music, and everything *else specially pertaining to female culture* might be taught."

WHITBY COLLEGIATE INSTITUTE.

THE heart of Whitby rejoices, for the High School of the town has been elevated to the dignity of a Collegiate Institute. In an age given to heap extravagant honours on the champions of the muscle, let us not omit to give the intellectual athletes at least their due. The credit of the well-won honour we chronicle more immediately belongs to the present scholarly principal of the school, Mr. Geo. H. Robinson, M.A., whose high attainments and great enthusiasm in the cause of advanced education have enabled the trustees of the institution to claim place for it in the highest grade of the schools of the Province. In this success, Principal Robinson, and the masters who are loyally associated with him, are to be congratulated. Those who have preceded them in the same work are entitled also to their meed of praise. For a number of years back the Whitby school has been pushing to the front, and it was felt that the time would soon come when the honours and emoluments of a Collegiate Institute would be within her coveted grasp. They are now hers, and the possession of them will doubtless act as a spur to both trustees and *masters to continue to achieve great things* in the cause of higher education. As a centre of intellectual life, Whitby, despite her comparatively small population, has an honourable record The distinction conferred upon the High School is itself a mark of the intellectual status of the community. It also pleasingly indicates the existence of a laudable pride in a local institution, which, to attain to the honours it has won, must have had the liberal and enlightened support of the townspeople. On what worthier object could a community spend its efforts? The institute is worthy of the people, and the people worthy of the institute. May both continue to flourish!

ANSWERS TO CORRESPONDENTS.

[In answer to "Inquirer," Stouffville, we append the following.—ED. C. E. M.]

Appanage is pronounced with the accent on the first syllable. *Lyceum* has the accent on the second. In the word *Holiday*, custom has changed the orthography from 'y,' in the word as it was originally spelled and pronounced, holyday, into 'i' and made the first syllable rhyme with *Poll*. In the word *Patriot* divide the syllable, thus: *pa'-tri-ot*, not *pat'-ri-ot*. Irish rowdyism has been called "*Pat-riot-ism*." In the words *believe* and *receive* it is a common error to reverse the dipthongal letters *ie* and *ei* in writing. A convenient rule for the spelling of such words is this: *c* takes *ei* after it; all other consonants are followed by *ie*: as deceive, reprieve. *Sar-da-na-pa'-lus* is pronounced with the accent on the *pa*, and *not* as if written *Sar-da-nap'-a-lus*. *Miscellany* has the accent on the first syllable *mis'*. "A Cadmean victory" was one in which the victors suffered as much as their enemies. *Rodomontade* means bluster or vain boasting. The origin of the word is to be found in a character in the *Orlando Furioso* of the Italian poet, Ariosto, who was named *Rodomonte*.

THE Elora Public School receives the Weather Probabilities daily from the Toronto Observatory, by special arrangement.

THE Rev. John Rodgers, the energetic and untiring Vice-Chairman of the London School Board, has gone to his long rest. In him London has lost one of the most enlightened supporters of popular education, and the teachers a warm friend.

OWEN SOUND felicitates itself on the possession of new buildings for the High School of the town, which have just been erected at a cost of $20,000. As the institution in Owen Sound is the only High School in the County of Grey, the buildings have been made capable of giving accommodation to 400 pupils. We commend the liberality of the townspeople in providing so generously for the education of the youth of the town and county. May the school continue to take high rank and flourish.

OUR readers, we are sure, will be glad to learn that Prof. Goldwin Smith has consented to the compilation of a volume of his lectures and essays, chiefly of a literary and historical character, which have appeared in Canadian periodicals and in the magazines and reviews of England and the United States. We need hardly say to the constituency we address that a great treat may be expected, for the volume will enshrine not only much of the mature thought of a great thinker, but also the ideas of a scholar in a scholar's language. Arrangements have been made to supply the profession with the work at the price of $1.50. We learn that Prof. Smith's *Cowper*, in Mr. Morley's series of "English Men of Letters," has reached a sale of 5,000 copies in England, besides the sale of the edition issued for the American market.

SEVERAL of our High School Masters are at present shewing a laudable ambition in the compilation and editing of editions of Classical texts, and the passing through the press of other and original work in authorship. Of books in the former category which are to issue immediately, we learn that two may be looked for, viz.: from Messrs. Willing & Williamson, an edition of Ovid's Fasti, Books V. and XIII., with notes and a vocabulary, by Mr. Geo. E. Shaw, B.A., of the Collegiate Institute, Toronto; and from the Canada Publishing Co'y, an edition of Cicero "Pro Archia," under the editorship of Mr. A. L. Parker, B.A., of the Collegiate Institute, Collingwood. Both gentlemen are good scholars and painstaking, industrious masters. We have no doubt, therefore, that their work will be highly creditable both to themselves and to native scholarship.

WE shall readily be pardoned for directing the attention of our readers to a series of papers now appearing in the *Canadian Monthly*, from the pen of Mr. J. G. Bourinot, B.A., of Ottawa, on the subject of "The Intellectual Development of the Canadian People." In the second of the series the author has given us an interesting historical *résumé* of the efforts put forth from the earliest times to give to Canada the benefits of education. Beginning with the year 1616, Mr. Bourinot traces the history of education in the Lower Province, and awards due credit to the labours of the various religious Orders in founding and endowing the scholastic institutions which were ever the object of the wise solicitude and fostering care of Mother Church. Passing the Puritan period, with a just compliment to the school laws of the New England Fathers, our author glances at the progress of education after the Conquest, and rapidly passes to its history in our own Province. Here we have some interesting records of much value to the historical student; and as the canvas broadens, in the descent to modern times, the paper becomes statistical but none the less instructive. In the latter portion some comments are made on subjects of considerable present interest to the profession, which, had we space at command in the present number, we should have been glad to reproduce in our columns.

This, however, we may be able to do in our next issue. Meantime, we have much pleasure in expressing our obligations to Mr. Bourihot for his industry in preparing the admirable paper he has given us, and we beg our readers to refer to the interesting series of which it forms a part.

WITH the next issue the CANADA EDUCATIONAL MONTHLY will begin a third volume, and, it is hoped, enter upon a further period of prosperity and usefulness. Owned, and, in the main, conducted by teachers, it is the aim of all connected with it to make the publication indispensable to teachers. If it has a claim at all for support, it lies in that fact, with the additional one, that the design of its promoters is to make THE MONTHLY a worthy and independent organ of the profession. That the founding of the publication has been a new departure in educational journalism, and has won commendation and success for what it has aimed at and accomplished, the establishment of one serial upon its own model, and the announcement of another, is decisive proof. In the interest of education we have hailed the appearance of one and shall hail the coming of others, if the motives that have led to their projection be but disinterested and their literary management good. Before receiving support, however, this test should be applied and acted upon. On these grounds we ourselves have appealed, and still appeal, for the support by which such enterprises can alone be prosecuted. But it should be remembered that the field for professional magazines in Canada is limited, and that teachers, however enthusiastic in literary matters, can ill afford to support more than one publication. There can be little encouragement, therefore, for many projects, and competition means a precarious existence for all. Publications issued as business organs, of course, may be sustained by their owners for the purposes of trade. But these can be of small service to the teacher, and of no value as an independent exponent either of him or his cause. Of advertising journalism the profession, we should say, has had enough. Let it support what disinterestedly speaks in its name and seeks solely the benefit of its cause and work.

RODS IN PICKLE.—The Home Secretary is not the man to let grass grow under his feet when he has an object to achieve, and has made a start towards it. Closely following on his letter to the mayor of Manchester on the subject of the treatment of juvenile offenders, appears an announcement that a supply of birch rods is on hand and ready for distribution among the various police courts. The rods are described as being rather more than a yard each in length, and as being well suited for their purpose. At every police station a constable is to be appointed flogger-in-ordinary, but the small culprits it will be his duty to operate on are not to be left entirely to his tender mercy. Billy Jones who lets off a squib in the street, or makes a slide on the pavement, and is sentenced to six strokes of the birch, will have his medical attendant present, just the same as the Old Bailey ruffian who is doomed to the Cat. Contrasting the English method of dealing with juvenile criminals with that of the Dutch, George Augustus Sala, in the *London Illustrated News*, says: "Boy burglars, boy pickpockets, boy robbers of tills and filchers of tradesmens' goods, and boy and girl 'hoodlums' (to use a Californian term) swarm in our midst. Boy roughs pelt each other, and the public at large, with stones; the Board School boys, as soon as school is over, gather in gangs in the streets to indulge in free fights with the children of other schools; and the railway companies are fain to employ detectives to watch for the fiendishly mischievous urchins who are in the habit of placing stones or pieces of wood on the rails with the view of upsetting trains. And with all this it does not seem that we have yet mastered the ABC of how to deal with juvenile offenders. Is Parliament really 'the collective wisdom of the nation?' I confess that I am growing somewhat sceptical of that pseudo-sapient common-place."—*Ex.*