

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

Coloured covers/  
Couverture de couleur

Coloured pages/  
Pages de couleur

Covers damaged/  
Couverture endommagée

Pages damaged/  
Pages endommagées

Covers restored and/or laminated/  
Couverture restaurée et/ou pelliculée

Pages restored and/or laminated/  
Pages restaurées et/ou pelliculées

Cover title missing/  
Le titre de couverture manque

Pages discoloured, stained or foxed/  
Pages décolorées, tachetées ou piquées

Coloured maps/  
Cartes géographiques en couleur

Pages detached/  
Pages détachées

Coloured ink (i.e. other than blue or black)/  
Encre de couleur (i.e. autre que bleue ou noire)

Showthrough/  
Transparence

Coloured plates and/or illustrations/  
Planches et/ou illustrations en couleur

Quality of print varies/  
Qualité inégale de l'impression

Bound with other material/  
Relié avec d'autres documents

Continuous pagination/  
Pagination continue

Tight binding may cause shadows or distortion along interior margin/  
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure

Includes index(es)/  
Comprend un (des) index

Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/  
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

Title on header taken from: /  
Le titre de l'en-tête provient:

Title page of issue/  
Page de titre de la livraison

Caption of issue/  
Titre de départ de la livraison

Masthead/  
Générique (périodiques) de la livraison

Additional comments: /  
Commentaires supplémentaires:

This item is filmed at the reduction ratio checked below /  
Ce document est filmé au taux de réduction indiqué ci-dessous.

|     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 10X | 12X | 14X | 16X | 18X | 20X | 22X | 24X | 26X | 28X | 30X | 32X |
|     |     |     |     |     |     | ✓   |     |     |     |     |     |

THE CANADA  
EDUCATIONAL MONTHLY  
AND SCHOOL CHRONICLE.

---

APRIL, 1880.

---

READINGS FROM AN OLD GEOGRAPHY.

BY DAVID BOYLE, ELORA.

IT may not be uninteresting to the readers of the EDUCATIONAL MONTHLY to compare the state of geographical knowledge during the earlier half of the eighteenth century with its present condition near the close of the nineteenth. At first sight many of the statements with regard to foreign countries may provoke a smile, but when it is considered that even so recently as one hundred and fifty years ago, distances were practically from ten to twenty times greater than at present, and that the "good folk" of, say, 1730 were not so intensely matter-of-fact as the "citizens" of 1880, we may feel that after all it is no great wonder to find how readily bug-a-boo tales recited by sailors were accepted by the common people, and learned travellers' romances by the more educated. Not only may we gather from old sources a good deal that goes to shew how credulous and superstitious our forefathers were, but

there is much in other respects brought vividly before us with reference to the growth of cities, the discovery and settlement of colonies, the changes in "marche" lines, and various tit-bits of an interesting, or merely curious, but withal, amusing character.

The work from which it is proposed to make extracts is entitled:

"GEOGRAPHY, by way of question and answer, principally designed for the use of schools. In two parts. Containing (1) an explication of the sphere . . . ; (2) a general description . . . To which is added a complete set of maps. Written originally in High Dutch by the late celebrated Mr. Hubner, and now faithfully translated with additions and improvements. Carefully revised and corrected, by J. Cowley, Geographer to his Majesty. London: Printed for T. Cox, at the Lamb and the Looking Glass, over against S. Magnus Church, London Bridge. MDCCXLII."

To our modern ideas there is an excessive quaintness about the title-page of this ancient geographical horn-book, and the reader will hardly be able to repress a smile when he arrives at the words, "Written originally in High Dutch . . . and now faithfully translated." The translator, however, was an honest man; had he lived now-a-days, he would, if necessary translate also, no doubt, but he would never tell everybody about it. Not he,—he would simply announce that he had "received valuable assistance from various sources," make some change in the arrangement, secure a copyright, and get F.R.G.S.'d for his trouble.

In the preface, the translator says, "Not only Children are for the Generality brought up without the least idea of it [Geography], but grown Persons, and too many even of the better Sort of People very seldom if ever entertain a Thought of improving themselves in a Branch of Learning which is as easy as 'tis advantageous. From hence it arises, that they read and tell of remote Countries, without the least adequate Idea of their Situation, Nature, Climate, &c., and by Consequence are too apt to make gross Blunders in that Respect. I once heard, I remember, an elderly Gentleman ask a Native of *Russia* very gravely, whether *Leghorn* did not lie in the direct Road from *London* to *Moscow*."

To these remarks by "J. Cowley, Geographer to his Majesty," no one will offer any objection, and we must all unite in saying how deeply grieved we are to know that yet "too many even of the better Sort" "make very gross Blunders in that Respect."

Mr. Cowley also bemoaned that "no *Introduction to Geography* has been attempted yet in a familiar Way, in the English Language." . . . "This apparent Neglect induced me to translate the following Treatise for the Use of our British Youth, which I dare

affirm to be the most compleat, and instructive of that Kind in any Language whatever." From the foregoing quotations it will be seen that *our Geography* is one that speaks with authority, and that in 1742 it probably had no superior, if it even had an equal, and that its information was, without doubt, the very best available at that time in England.

Passing Portugal, Spain and France, which in this order precede Mr. Cowley's own country, we come at last to Great Britain, and in answer to the first question, "Why is this Country called *Britannia*?" we have the very instructive reply given: "Principally because the Britons were the first Possessors of it. It was a Custom among them to stain their bodies with sky-blue. . . . Camden says it received its Name from thence, the Term *Britain*, signifying in their language *colouring*."

The description of London recalls to mind a now obsolete meaning of "curiosity." "At the Eastern Part of London is the Tower where there are a great many curiosities exposed to publick View; such as the Mint, the two Armories, the Regalia, &c." "Exposed to publick View," in such a connection is at least quaint.

Neither on the map, nor in the reading-matter do we find any allusion to the "World's Toy Shop," Birmingham, and although on the former Leeds, Manchester, Sheffield and "Leverpool" are laid down, they are not considered worth noticing as places of any account. So far as Yorkshire is concerned, the three chief towns are York, Hull, and Richmond; and under the sub-heading "County of Lancaster" we read "The Place of most Note is Lancaster, in which there is a fine Castle, notwithstanding it is but a small one." A somewhat odd reason is given for the abundance, which according to Mr. Cowley, was to be found in Newcastle-upon-Tyne

—“Every Thing is very plentiful there, as the place is encompassed with Coal-Pits, and there is a navigable River from whence they can convey them to what distant markets they see most convenient.” The conveyance of Coal-pits to distant markets we may now reckon among the lost arts.

Describing England generally, the Geographer-Royal informs us that it “is a Country of a temperate Air; the Soil produces Plenty of Grain and Fruit . . . as for Beer there is no where so good in all the Northern Countries. It abounds with Cattle, Game, Fish, &c., And in short, is blest with all the real Necessaries of Life.”

To Mr. Cowley, as to England generally, Scotland was then little more than a foreign country, as we may gather occasionally from his remarks. In his account of how Scotland is divided, he says, “The whole Kingdom is divided by the River Tay, into the South and North Parts (!) the South Part whereof is most populous and civilized . . . the North Part still retaining the Customs and Manners of the ancient *Irish*.” A man who lived one hundred and fifty years ago and whose capacity for belief was equal to Mr. Cowley’s (as will be seen shortly) may be pardoned for his faith in that historical myth which attributes to Ireland the source of Scotland’s population. It may be particularly interesting to your Scottish readers to learn the names of the Counties of Scotland according to our authority—these were, “in the North, Lochabar, Broadalbin, Perth, Athol, Angus, Merns, Mar, Buchan, Murray, Ross, Sutherland, Caithness and Strathnaver; in the South, Tiviotdale, March, Lauderdale, Liddesdale, Eshdale (probably Eskdale), Annandale, Niddisdale, Galloway, Carrick, Kyle, Cunningham, Arran, Clydesdale, Lennox, Stirling, Fife, Strathern, Menteith, Argyre, Cantyre and Lorne.”

He is kind enough to say that “The Air is sharper, but more pure than that in England,” and that “The Men in Generall are well-made, and of a robust, hale Constitution.” Quite unwittingly, of course, he makes the very paradoxical statement that “those who DISSENT from the Church of *England* and are called *Presbyterian*, are in much greater numbers than the Churchmen, so that Presbyterianism is the established Religion of the Country.”

One more quotation from this volume by the “Geographer to his Majesty” and we shall leave Scotland for the Sister Isle. “Their Historians,” says he, “boast of many natural Rarities, among others: Of some Geese that breed in Logs of Wood floating on the Sea; and of others which hatch their Eggs with one Foot, and have a fishy Taste. Of the Lake Lowmond, in which are fish without Fins, very pleasant to eat; of the peculiar quality of its Water, which turns Timber into Stone. Of the floating Island in a Lake, which is in a constant Ebullition, be the Air ever so calm. Of a Cave in the County of Buchan, from the Roof of which drops Water, which petrifies into Pyramids that are of a Middle Nature betwixt Stone and Ice. There are no Rats to be met with in Sutherland; and when any are brought there they instantly die.”

So far as the names of the Irish Counties go, if we except the spelling, they correspond with the present divisions. The exceptions are the Catherlough and Ardmagh.

Describing that town whose name is so indissolubly connected with the story of the cats, our authority gravely relates, “This City is remarkable for enjoying the four Elements in Perfection, from whence ’tis said to have  
‘Fire without Smoak, and Earth without Bog,  
Water without Mud, and Air without Fog.’”

In answer to the question, "What is the state of the Country in General?" the answer is, "The Commodities of Ireland consist chiefly in Cattle; the Air is mild, but moist and foggy; the Soil is not very proper for Corn, it being always poor and never ripens to perfection. The Pasture is rich in some, and but indifferent in other Places, but altogether it is a fine Country, and capable of Improvements; and the people are free from being annoyed by venomous Creatures, since none ever harbour or breed there."

"What Character do the Natives of Ireland bear?"

"*Ans.* A certain Author gives the following description of them—'The Irish' (says he) 'are a strong and bold People, martial and prodigal in War, nimble, stout, and hearty of Heart; careless of Life, but greedy of Glory; courteous to Strangers, constant in Love, light of Belief, impatient of Injury, given to Lasciviousness, and in Enmity implacable.' But as most Writers treat partially in their Characters of Countries, according as they stand affected towards them, there is no relying on the bare Report of a Single Author in such Cases, especially when he conceals his Name." Mr. Cowley continues: "The greatest Part of the Natives are *Roman* Catholics, but as the Laws have been put in Execution for establishing the Church of England in that Kingdom (Ireland) it has already, and will in Time, lessen the Number of Papists, and increase that of the Protestants." Not to mention the looseness of the composition in the last quotation, it may simply be remarked in passing that the obliquity of moral perception exemplified in the belief of our geographer regarding the possibility of making Act of Parliament Protestants, must have been at least partially removed by the events of the years almost immediate-

ly succeeding the publication of his volume.

Omitting for the present any further reference to Old World lands, let us see what was taught in 1742 about the countries on this side of the Atlantic.

Says the Geographer to His Gracious Majesty George II.: "North America is divided into four capital parts, viz.: 1. New Spain; 2. New Mexico; 3. Florida; and 4. Canada." It is not easy to see why a division should be called *New Mexico*; but further on we learn the reason to be that it was discovered after Old Mexico, further south. Old Mexico then, or Mexico proper, as we would say, was merely an "audier.:" of New Spain, the other "audiences" being Guadalaxara and Guatimala.

Rich, no doubt, as the City of Mexico was, and magnificent with barbaric splendour, the description given of it must have made a heavy demand upon the credulity of the 1742 schoolmaster: "Mexico is the Capital City of all America; it was formerly the residence of the Mexican kings, the last of whom was Montezuma. In his Time this place had 80,000 Houses built very grand after the American Taste; the Royal Palace had twenty Gates; there was another Palace where the King kept an Aviary of Birds; another for wild Createres and Birds of Prey; another for Dwarfs and decrepid People, who were entertained like kings; another for Crocodiles and Serpents, who were fed with men's flesh; and another Grand Building was made of the Skulls of the slain Enemies. . . ."

Hurrying north to get nearer home, we read that "the River Mississippi flows from Canada through the Middle of Florida. . . ." By "Florida" here we are to understand "French Florida," for, according to the text, there were also "English Florida" and "Wild Florida," although a re-

ference to the map shews no lines of demarcation between these provinces. Speaking of New Orleans, Mr. Cowley says it "was at first intended for a large City, but has hitherto but mean houses, which are covered with the Bark of Trees." This description is scarcely borne out a little further on, where we are informed that "New Orleans is a very pretty Town, lately built by the French."

Reaching Canada, the greater portion of the matter is so interesting and suggestive, that it may be well to make an extensive quotation exactly as presented to us in our geography

"OF CANADA.

Q. From whence had *Canada* its Name?

"Ans. From the River *Canada*, now called *St. Lawrence*, which is large, and flows from West to East throughout that Country.

"Q. Who were the first Discoverers thereof?

"Ans. The *English*, in 1609; at which time *Henry Hudson* discovered that Bay which parts this Country from the unknown Lands in the North, on which Account it is to this Day called *Hudson's Bay* or *Streights*.

"Q. Are the *English* the only Possessors of it?

"Ans. No; the *French* also have some Settlements here, but the greatest Part is inhabited by the Native *Indians*.

"Q. Which are the Settlements of the *English* in this Country?

"Ans. They possess the whole Coast of *Maria del Nord*. The whole Length of the Country of *Carolina*, to the End Eastwards, is 1,200 *English* Miles.

"Q. How is this large Tract of Land divided?

"Ans. Into six Provinces, which, from West to East, lie in the Order hereinafter particularly described.  
 . . . *Virginia, Maryland, New*

*Sweden, New York, New England, and New Scotland.*

"Q. Which are the most noted Places in *Virginia*?

"Ans. 1. *James Town*, the Capital.  
 . . . 2. *Tragabizanda*, which is also a large City. 3. *St. Georgia*.  
 4. *Pomejoc*, which was the Capital of the Natives. . . ."

Omitting much that is merely common-place, we come to:—

"Q. From whence had *New Sweden* its name?

"Ans. When King *Charles I.* was beheaded in 1640, and Everything was in the utmost Confusion, the *Swedens* being inclined to fish in troubled Waters, and to catch some Part of America, they succeeded, and the Country they took Possession of they called *New Sweden*; but King *Charles II.* soon made them quit that Coast, and gave them to understand that the whole Coast was the Property of the *English*."

The assumption of King *Charles II.* was fairly matched by the cool impudence of the "Geographer" who penned the above, which is more than equalled when writing of *New York* on this wise, he says: "They (the *Dutch*) call'd the whole *New Holland*, and were Masters thereof for about 50 years, but they and the *Swedish* Settlement falling out, the *English* decided their Quarrel, and made them both quit the Country."

"Q. Which is the Sixth Colony of the *English* upon the Coast of *Canada*?

"Ans. *New Scotland*. . . .  
 The *French* discovered it about 200 Years ago, but did not mind it. However, when the *English* in 1663 set Footing therein, the *French* would not suffer it, and in 1662 (curious arrangement of dates), they brought it again under Subjection, called it by the name of *Arcadia* (*sic*), and possessed it till the Peace of *Utrecht*. . . .

"Q. Which is the *French* Part of *Canada*?

"*Ans.* They possess all the Rest, but it is not known how far this Coast reaches Southwards (Northwards?) Its Length cannot well be computed; what is known is about 1,200 Miles, and the breadth from North to West, 800 Miles. The French discovered this Country by means of their Fishery; who, since 1504, found abundance of Cod near this Coast." The ambiguity of this paragraph is really charming!

"*Q.* What Colonies have the French here?"

"*Ans.* They have *Canada Propria*, which is parted from *New Scotland* by the River *St. Lawrence*. It is about 320 Miles long and 120 broad.

"*Q.* Which are the principal Places therein?"

"*Ans.* 1. *Quebec*, the Capital; a large, well built City, with a Citadel, wherein resides the Governor. There is also a College. 2. *Brest*, a Sea Port, and a Place of great Commerce. 3. *Mount Royal*, a Fortification to keep the wild *Canadians* in Awe. 4. *Nipisiqui*, a Town where the Indians come and barter for their Commodities."

In connection with the towns here enumerated, one would like to know a little about *Brest* and *Nipisiqui*. Where were they, if they existed at all, and by what names do we speak of them to-day?

"*Q.* What other Colonies have the French?"

"*Ans.* *New France*; this Colony was before nothing but a Wilderness; but the *French* have cut down the woods and made the Country now produce good Pasture and Corn-Fields; so that they have Plenty of Cattle, Corn and Flax. There are also Copper, Iron, and Lead Mines; but the best Traffick consists in Wood, Sea-Coal, Salt-Fish, and several sorts of furs."

The production of "Corn-Fields" is quite original.

"*Q.* Which are the principal Places in *New France*?"

"*Ans.* *Tadousac*, which is a good Harbour, and Fortification against the wild *Canadians*; 2. *Orleans*; and 3. The Island of *St. John*, several miles in Length, besides many Settlements of less Note.

"*Ans.* Which Part of Canada is inhabited by the wild Natives?"

"*Ans.* They possess almost all Parts of it, and their Number may be reckoned 1,000 to one *European*. They have no Fortifications, Magazines, or good Officers, so that the *Europeans* stand in no Fear of their Revolt. The Men are strong and healthful, the Women are white, but paint themselves a Variety of Colours in which they are proud to outdo one another. They go naked in Summer, but in Winter they cover themselves with Skins. Their chief Employ is Hunting, and they trouble their Heads about little else; they are continually at War; the Prisoners are cruelly tortured, flea'd, and then broil'd and eat. Some of these Countries are distinguished by their several Nations, as:—

- |                          |                          |
|--------------------------|--------------------------|
| 1. The <i>Iroquois</i> ; | 3. The <i>Illinois</i> ; |
| 2. The <i>Hurons</i> ;   | 4. <i>Tongoria</i> ;     |
| 5. The <i>Hinois</i> ;   |                          |

and many more.

It is particularly noticeable that not a word is said about the Falls of *Niagara*, and this is the more remarkable from the fact that their position is very distinctly laid down on the map—at the junction of "Upper Lake," or *Lake Superior*, with *Lake Huron*!

The singular jumble of fact with fancy cannot fail to strike the reader at once. The "Geographer to his Majesty" no doubt felt it incumbent upon him to say *something*, even when he knew next to nothing, and in giving rein to his imagination he must have considered himself moderately safe on American soil.

One cannot avoid a feeling of *wonderment* at the wretched English of Mr. Cowley, writing as he did with so many excellent models before him, and perhaps the best plea that can be urged for his slipshod composition is,

that his work was only intended for "the use of schools."

Some change, in this respect, has been made, so far as modern school-books are concerned—has it been *very* radical?

## THE EDUCATION OF THE CITIZEN.\*

BY W. A. DOUGLAS, M.A., TORONTO.

JUST about a hundred years ago there occurred two great events,—the invention of the steam engine and the publication of the "Wealth of Nations." The former multiplied a thousandfold the power of the labourer, while the latter enunciated the laws of the organization of labour. How rapid has been the progress of invention since that time, and what new discoveries have been made, it is superfluous to mention. In the progress of physical science more seems to have been accomplished in the last century than in all the other centuries of social history. But while we congratulate ourselves on these triumphs of human skill over the physical forces, we cannot refrain from asking if man has made the same progress in developing manhood, intellectually, socially and morally. Europe has millions of men now armed to the teeth, waiting the signal to engage in mutual destruction. We have been startled at the reports of attempts made to destroy almost all the crowned heads of Europe; Socialism, Communism, Nihilism, and other isms are agitating mankind; intemperance, that disgrace of our advanced civilization, is blighting humanity with its destructive curse; labour and cap-

ital seem to find but little reconciliation; in some parts of every large city even in the very shadows of Christian sanctuaries, there are slums of vice as degrading as anything to be found in pagan lands. Under such conditions the question cannot but come forcibly to the mind of the teacher, are our schools fulfilling their mission for humanity? Are they helping torid society of its evils, and doing their work in implanting those principles that elevate, purify, and ennoble? Is the school-room proving itself as it should do an important factor in human progress?

The time was when matters pertaining to government were supposed to belong exclusively to the consideration of a few persons, an oligarchy, an aristocracy, or an absolute monarch. That time has passed away so far as our own country is concerned, and for weal or woe, we are now entrusted with the governance of ourselves. And not merely are we called upon to settle matters of government, but various other questions affecting our social relations are continually forced upon us for decision. Political reformers have demanded the extension of the franchise, but the privilege of voting does not confer wisdom on the voter. A majority may be as guilty of injustice and tyranny as a despotism.

\* A Paper read before the Toronto Teachers' Association.

The education of the citizen comprises: (1) The development and strengthening of the moral faculties; (2) A knowledge of the duties of citizenship, which includes an acquaintance with Social Law and the Functions of Government.

1. The moral training of the pupil cannot be too strongly emphasized. By moral training I do not mean merely such instruction in the principles of morality as may be taught from textbooks,—however valuable such knowledge may be,—but the continuous, ever-vigilant effort of the teacher to develop noble character. Mere intellectual ability, extensive and varied knowledge, the possession of abundant and efficient educational appliances are valuable; but when compared with an intense love of truth, and an indomitable determination to make the best use of one's circumstances, they are as the dross to the fine gold or as the casket to the gem. There is a powerful temptation ever haunting the teacher, simply to get into the mind of the pupil the appointed task, and to feel that he has fulfilled his duty when the pupil can pass the required test at an examination; but there are elements in the training of a youth that cannot be shewn on paper, nor be made to do service at an examination, and for which the teacher cannot get credit in any system of "payment by results." I do not condemn that system; but there is much danger of a teacher thinking that his task is accomplished when the examination is successfully passed; and so much applause is showered on that teacher who counts up the greatest number of successful students, that there is all the more necessity for ever keeping in view the fact that any system of education which ignores the development of character, and the training and strengthening of the moral faculties is essentially defective.

We can hardly call that education a successful one which permits a pupil, after several years of training, to find more pleasure in a dirty "cutty" pipe, an equally dirty pack of cards, the latest sensational novel, or the billiard table, than in the grand truths to be found in our rich stores of historical, scientific and poetic literature. One of the dangers to which society in this country is exposed is the tendency to sacrifice the grand opportunities of life to employments intended simply to please, regardless of any genuine improvement and profit. Great nations are made up of laborious toilers, not idle triflers; of earnest men having a determined and noble purpose; and the teacher who wishes for the highest success must aim at developing in his pupils the spirit of ambitious endeavour to make the best use of their opportunities.

2. Some writer has said that "after the study of Religion which teaches us our relations to God, the most pressing duty of man is the study of political science, which teaches us our relations to our fellow-men." I am not prepared altogether to agree with this statement, for man always needs food, clothing, and shelter, and in any system of education, the fitting of the youth to provide these in the best manner must always receive its just recognition.

Of the importance of an adequate knowledge of the true functions of government and the social forces by which society is governed, every page of history bears testimony. Many of the evils under which society is at present suffering can be largely traced to the mistaken policy pursued by different governments. Increasing the number of voters, or giving the ballot, is no remedy for these evils. There must be increased knowledge of their causes before the proper remedies can be applied.

A bad law may be repealed in an

hour; but the evil habits produced by bad laws are apt to be handed down as legacies to succeeding generations. One of the difficult problems that England has still to deal with, is the proper management of her professional paupers, who have been created and fostered largely by her Poor Laws.

In spite of all the wonderful advancement that has been made in the instruction of the people, there are many popular errors which may any day become embodied in the statute books of the nation. Allow me to give an example:

In the word *work* there lurks an ambiguity. A workman asks an employer to give him some work. What the man really is looking for is not *work* but *wages*. He offers the use of his muscle and his brain which we call *work*. The employer offers him in return what we call wages, so many dollars, pounds, or shillings as the case may be. The labourer now takes these dollars and with them obtains such commodities as he wants, and then, and only then, does he really obtain what are his actual wages, viz., his food, clothing, shelter and what not, which he receives in exchange for his money. But so much are people accustomed to associate work and wages, that time and again the two things are confounded as if they were one and the same thing. You are well aware that one of the standing resolutions of trades-unions is a protest against prison labour; because, as they assert, prison labour takes away the work from the honest workman, and, therefore, it takes away his wages. I am willing to admit that it does take away his work; so does the horse drawing a load of bricks take away the work from the brick carrier; but I most emphatically deny that it deprives him of any portion of his wages. To suppress prison labour would be just as wise as

to shoot the horses and compel men to carry the loads, or to make woodmen work with dull-edged axes, or even without axes at all, for then would their work be infinitely increased; while wages would be proportionately diminished. Keeping in remembrance that men work to get commodities—then we can easily understand that by increasing products, by prison or any other labour, we increase wages, and by diminishing products we diminish wages.

Take another example: No word in the English language is more frequently used than the word *money*; and I may add, no word in the English language is more frequently misused than the word *money*. You are all aware that a piece of gold of a certain weight and fineness has a certain value, just as a bushel of wheat, a cord of wood, or a coat, has a certain value. Now, the Government takes this piece of gold and stamps it. What does that stamp mean? Simply this: it certifies the weight and fineness of the gold; that is all. It adds nothing to, it takes nothing from, the value. Gold had value before ever Governments thought of stamping it. As one writer has aptly remarked: "The Government stamp saves the merchant the trouble of carrying about a pair of scales and a bottle of acid to weigh and test the gold." For the sake of economy the Government issues notes. The face of the note says: "The Dominion of Canada will pay the bearer the sum of One Dollar." A note is simply a promise to pay a certain weight of gold, just as a baker's ticket promises to pay a loaf on demand. But because the promise and the thing promised are both called "money," they have been confounded as the same thing, and because we effect all our exchanges by means of "money," some people think that a mere increase of the means of exchange will

necessarily also increase the things to be exchanged.

Of the evil effect of this doctrine let one example suffice.

In the month of December, 1861, a soldier's widow put into a bank in the United States \$200, and then removed with her children to California. After the lapse of two and a-half years she withdrew her deposit and received \$83, accrued interest at six per cent. included. She should have received fully two hundred and thirty dollars. Why was this fraud? Because the United States had committed the fatal error of issuing an irredeemable currency. When a Government issues an irredeemable currency, anything issued beyond the wants of commerce is a forced loan. If that were all, it might not be a very serious evil, but that is not all, nor the worst. The worst feature, and that which stamps an irredeemable currency, as an act of a Government, under no circumstances justifiable, any more than licenses for burglary would be justifiable, is the fact of its depreciation. Mark carefully what this depreciation means. It gives every debtor the privilege of compounding with his creditors.

If anyone were to ask me where he might get an idea of the standard to which school pupils were expected to attain in this Province, I would refer him to the excellent examination papers issued by the Education Department, which are accepted as a standard by teachers themselves. In those papers we find such questions as the following: "What is meant by the centrifugal and centripetal forces?" "How does the law of gravitation vary?" "Describe the Gulf Stream, giving its course, and how it affects the climate of certain countries."

Now though all the world were ignorant of the centrifugal and centripetal forces, the earth would pursue

her path through space in her appointed season. Man cannot interfere with that; not an inch can he alter her course; not a second, her time. It is not so with social forces. Here man can and, as I have shewn you, does interfere. Questions of trade, of competition, of relations between master and servant, of the employment of capital—all these are under the action of great social forces; and human laws are just or unjust exactly as they harmonize or interfere with these forces. If, therefore, we consider it of importance that the pupil should be acquainted with the mechanism of the heavens, where he has no control, is it not of vastly more importance that he should have some knowledge of the mechanism of human society where he has control, and where the condition of his fellow creatures must be affected beneficially or injuriously by that control?

To expect that we can make expert statesmen out of our youth would be Utopian, but the laws of society are not so profound but that they may be easily comprehended by our advanced pupils. The teacher should ever try to develop the imagination of the pupil. In history this is of great importance. The realizing of past events and conditions of society is essential to the proper understanding of history. To read dates, to learn lists of names, to enumerate a series of past events, gives but a very inadequate knowledge of history. I do not see how the enthusiasm of the student can be aroused without this proper use of the imagination. The mental eye must be trained to look upon the unseen, the past, and the remote. In this manner I would like the pupil to gain such a knowledge of the complex machinery of human society. He would then find that amid vast apparent confusion there reigns a grand harmony, which I am tempted to think is just as beautiful and admirable as anything revealed

in the physical forces of the heavens or the earth.

I must here consider for a few moments an objection that may be offered to the necessity of introducing the subject of Political Economy into our schools. Newspapers treat principally of political subjects, and it may be urged that the pupil will be sure to gain an adequate knowledge of these subjects after he leaves school. Perhaps he may. But what is there to prevent the demagogue getting control of the press? There is no inherent virtue in a newspaper, and as we see the press at the present day, there is one fault that renders it very untrustworthy to deal with this subject—I refer to its partisan character. Given the power to read, let the pupil read continuously one side of a discussion, and he is just as fit to judge correctly as a jury is fit to render a verdict after hearing the evidence and the counsel on one side only.

I recommend this subject to the teacher all the more earnestly, because of the grand aim it has in view. Many things are taught to the pupil that he

may hardly ever be called on to apply in after-life, while he can scarcely enter into a profession or a trade, much less can he take his part in the duties of citizenship without being required to use his knowledge of the laws of social science. In teaching this subject the teacher may well cherish a patriotic pride in feeling that his labour has a directly beneficent object. Are wars to cease, are contests between capital and labour to become things of the past, is taxation to be justly distributed, is freedom to extend, is poverty to be ameliorated, is man to labour only for the good of man? The teacher has much to do in the solution of these questions. The toils of the faithful teacher are often but poorly paid, and still more poorly appreciated. But if he can feel that he is working for the benefit of humanity, that this world's woes will be less because he has aided to spread truth; he may well disregard the lack of material reward or appreciation in the nobler feeling that to give is more blessed than to receive.

THE difficulties of doubling the Cape of Good Hope, called by its first discoverer the Cape of Storms, are familiarized to us by the story of the Flying Dutchman. Mr. Francis Galton accounts for them by the strong narrow current of warm water driven from equatorial latitudes by the prevailing east winds; it sweeps down the south-east coast of Africa, and spreads to the south of the cape in numerous streamlets, causing marked atmospheric disturbance and storms. These east winds, when they reach the continent, are deflected in the same direction as the currents, by coming in contact with the bounding face of a table-land, which in the neighbourhood of Lake Nyassa, is 8,000 feet high, and gradually declines going south-eastward. This table-land in fact has the same effect upon the wind, as the coast has upon the current, and helps to produce the same effect—a stormy sea south of the Cape.

ON Christmas Day last, Mr. Longfellow wrote thus pleasantly to Mr. Peaslee, Superintendent of Public Schools, Cincinnati, in reply to an invitation to send a few lines for the intended celebration of the poet's seventy-third birthday by the public schools of that city: "I wish it were in my power to comply with your request to send you some lines to be read on the occasion you mention. But want of time and numerous engagements render it impossible. I can only send you my Christmas and New Year's greeting to the grand army of your pupils, and ask you to tell them, as I am sure you have often told them before, to live up to the best that is in them; to live noble lives, as they all may, in whatever condition they may find themselves, so that their epitaph may be that of Euripides: 'This monument does not make thee famous, O Euripides, but thou makest this monument famous.'"

## THE AGE OF LORD BACON.

BY REV. J. J. CAMERON, M.A., PICKERING.

*SECOND PAPER.*

ANOTHER influence which tended to produce the same result, was the establishment of schools in different countries of Europe. In Britain and France, Spain and Germany, various schools were established to which pupils resorted from distant lands. From these light radiated, in all directions. Here lectures were given and discussions held to which throngs resorted. In one, for instance, were 30,000 pupils attending, in another, 25,000, while among the students attending another, were twenty cardinals and fifty bishops. Education is a quickener of thought and an enlarger of knowledge. Discussion is the crucible from which Truth comes forth, stripped of her dross, brighter, purer, diviner than before. But while the world was thus being enlightened by schools which soon dotted the country, there was silently taking root in the brain of an obscure German an art which was destined to revolutionize the world of letters and give it a power and permanence it never before possessed—the art of printing. Before the invention of printing, it was a difficult task to preserve or multiply books. Parchment was the only material used for writing, and as it was very expensive, the practice of erasing one manuscript in order to make room for another, became very common. Books were few in number, and what few there were, were confined to the learned. But a mighty change took

place with the invention of printing. Schools acquired an influence they never before had, books were multiplied and brought within the reach of the poorest, the blessings of knowledge were sown broadcast over the land, men's intellectual activities were awakened, and a general resurrection of mind took place. Thus did all these influences pave and prepare the way for the emancipation of the world from the moral and intellectual bondage under which it had long groaned. God ever works slowly, but surely. He prepares men for the unfolding of His purposes, and not until by a long process of training and discipline their minds are prepared to receive light, does He cause the light to shine forth to enlighten and to bless. Long ages, we have reason to suppose, rolled away, during which our earth was being prepared for the bringing forth of fruit and the support of man, ere God sent forth the fiat "Let there be light," and so two long centuries passed away ere He commands the light to shine forth by which the thick darkness of ignorance and superstition melts away, and moral verdure and beauty mantle the world. All the influences we have mentioned may be compared to so many streams which, starting from separate fountains, at length converge, and melting into and mingling with each other, form one broad, deep and majestic river. Or these influences may be likened to precious seed dropped into the soil of the world. That seed was

soon in tears, it was watered by the blood of martyrs, the warm sunshine of God's smile shone upon it, and it grew and greened and ripened into a glorious harvest-field—the religious and intellectual Reformations of the sixteenth and seventeenth centuries. Those Reformations meant emancipation from spiritual and mental bondage, the dawn of a day for which the heart of the world had long been yearning—the loosing of the shackles of ecclesiastical oppression and tyranny.

Then did the twilight which, for centuries, was spreading and brightening, melt away into the clear, bright light of day; the storm-cloud which had for centuries been gathering over the head of the Church, growing denser and blacker, at length burst forth with terrible fury, shaking it to its very foundations and inspiring the hearts of men with foreboding and fear; the tide of truth which had long been at its lowest ebb, was now advancing to its spring-tide height, and before its surging waves, the lofty edifice of ecclesiastical tyranny was fast crumbling away, and shewing how powerless it was to resist the onward march of Truth; for Truth must live, she is immortal and has an invulnerable life. From the fiery furnace of persecution she has come forth purified from her dross, and bright with a heavenly radiance; the storms which have raged around her have only tested her power of endurance, filled her sails, and caused her to speed on with a swifter, statelier tread, on her heaven-directed course, victorious over every wave of trial.

“Truth crushed to death, shall rise again,  
The eternal years of God are hers,  
But error wounded, writhes in pain,  
And dies, amid her worshippers.”

The Reformation under Luther and that under Bacon may be regarded as different aspects of the same tidal wave which, in that period, swept

over the face of Europe, different harvests of the same sowing, different hues of the same rainbow. The same influences which led to the one also led to the other, for whatever went to weaken the influence of the Church, went also to weaken the influence of Aristotle, whom the Church set up as the infallible teacher of scientific truth. When Luther, hero that he was, came forth and questioned the infallibility of the Pope, the way was opened up for questioning the infallibility of Aristotle. The same blow which was dealt out to the one, was dealt out with equal force to the other, and *vice versa*. The liberty to read an open Bible paved the way for opening the Book of Nature and reading her ample page, while, on the other hand, the liberty to open the Book of Nature which was claimed by the intellectual heroes of the preceding century, by Roger Bacon, Copernicus and Galileo, prepared the way for Luther and for the liberty of reading an open Bible. The Reformation under Bacon again, like that under Luther, was *gradually* brought about. The age was moving Bacon-ward long before it became Baconian. By those who went before, by men who, in the face of trial, persecution and death itself, dared to be true to themselves and to the cause of truth, was the way prepared for the advent of Bacon. There was thus intellectual life before Bacon, as there was spiritual life before Luther; a spirit of investigation had been inspired, and many here and there were found opening the Book of Nature and unfolding her laws. And, at length, when all things were ready, when every influence previously operating had performed the work assigned it, and men's minds seemed prepared by the training and discipline of centuries, for brighter gleams of light and greater advances in knowledge, Francis Bacon arose to sys-

tematize the results already arrived at, to proclaim the gospel of science, and to inaugurate a glorious era of intellectual liberty and progress.

Francis Bacon was born in London in the year 1561. He was a delicate boy and noted for the gravity of his demeanour and his sedentary habits. It is said that while a mere child, he, on one occasion, stole away from his companions to inquire into the cause of an echo which he happened to hear. It shows that even then the peculiar bias of his mind had become manifest. At thirteen, he went to college, where he remained three years. It is said that when a mere youth at college, he planned that great intellectual reformation associated with his name. Whether this be so or not, we know for certain, that at the end of three years, he left college thoroughly disgusted with the airy speculations there engaged in, and carrying away with him but little reverence for Aristotle or the ancient philosophy. After leaving college, he went abroad and travelled for some time, observing men and manners, and gathering information as he went. On returning home, he began the study of the law. His genial disposition, ready wit and graceful eloquence soon procured him clients. He rose rapidly in his profession, but not without difficulty and struggle. There were those who viewed this rising young man with jealous eye, who strove to blight his prospects and belittle his talents. But he struggled on. Merit will sooner or later win its way to acknowledgment. Envy may seek to blacken your name; jealousy may do her best to retard your progress or weaken your influence, or trip you down; clouds may overshadow your sky, and steep and rugged may be the pathway to success; but persevere, young man, fear not the difficulties which may obstruct your pathway; "Onward and Upward" let your watchword be; ap-

preciation shall come, although long delayed; light shall arise out of darkness; the sunshine of success shall, at last, gleam out upon your pathway, and all the more brightly by reason of the darkness which preceded; and from the struggles and trials which you manfully encounter you shall come forth stronger and braver to win life's victories. Bacon rose rapidly, we have said. He advanced from one post of honour to another. He became Queen's Counsel, then Attorney-General, then Keeper of the Great Seal, and then Lord Chancellor. But reverses came, misfortunes overtook him, charges of the most serious nature were brought against him, and his downfall threatened to be as sudden and sad as his rise was rapid and pleasing. He was accused of bribery. The fact was, he had been living, like many of us now-a-days, too extravagantly, and to save himself from debt and disgrace, he was obliged to accept bribes from suitors who were willing to go any length to have decision pronounced in their favour. He was tried, convicted and condemned to pay a fine of forty thousand pounds, and to be confined in prison during the King's pleasure. He was banished for life from the court, and declared unfit to hold any office or to sit in Parliament. Thus, the cloud which had long been gathering over his head broke, and from its dark bosom went forth a tempest to blast his name and wither his hopes. Side by side with the greatest intellectual ability, there may dwell the greatest moral weakness. Bacon affords striking illustration of the truth. He had a towering intellect, enriched by the fruits of long study. His knowledge was extensive, and embraced in its wide circumference almost every subject. His powers of observation were so great that nothing escaped their reach. But while intellectually great, he was morally weak. Men-

tally, he was a giant; morally, a dwarf. In the study, he was great, familiar with the whole circle of the sciences, profoundly versed in almost every branch of human knowledge; but when he emerged from his study, and went forth into the world of men and things, he was a dupe, and seemed powerless to resist its temptations and to battle with its sins. He stands as a beacon-light on the shore of time, not only to enlighten, but to warn. From a study of his life, we learn what philosophy can do, and what it cannot, we see alike its glory and its shame. Philosophy may sharpen the intellect, enlarge the mind, and open up before it the wide domain of knowledge. With it you may unlock the hidden treasures of the earth, fathom the depth of the sea, weigh the sun in scales, count the stars of heaven and learn the laws by which their motions are governed; it may teach you to mollify the fierceness of the storm, to rob the thunderbolt of its power to harm, and to make the wild forces of nature subservient to your purpose; but with all this, it may leave you a moral dwarf, unable to conquer your own spirit, powerless to resist life's temptations, to endure its trials, or vanquish its sins.

"Let knowledge grow from more to more,  
But more of reverence in us dwell;  
That mind and soul, according well,  
May make one music as before.

Who loves not knowledge? Who shall rail  
Against her beauty? May she mix  
With men and prosper! Who shall fix  
Her pillars? Let her work prevail.

But on her forehead sits a fire:  
She sets her forward countenance  
And leaps into the future chance,  
Submitting all things to desire.

Half-grown as yet, a child, and vain,  
She cannot fight the fear of death,  
What is she, cut from love and faith,  
But some wild Pallas from the brain

Of Demons, fiery-hot to burst  
All barriers in her onward race

For power? Let her know her place;  
She is the second, not the first.

A higher hand must make her mild,  
If all be not in vain; and guide  
Her footsteps, moving side by side  
With wisdom, like the younger child."

But we hasten on to consider the glory of Bacon's life, the work which has immortalized his name, and justly entitles him to the grateful remembrance of all generations. He was an intellectual reformer. He continued and, it may be said, completed the glorious work which was carried on by Roger Bacon, Copernicus and others before him, and stands forth, as the boldest champion of his age for that intellectual liberty and progress for which they toiled and suffered and died. He threw off the last remaining shackle with which liberty was bound, opened wide the door and led her forth to breathe a fresher air, and to bask in a brighter sunshine. He proclaimed with no uncertain sound that Nature is our grand field for investigation, that her ample page is open to every eye, that within her is contained our whole store of knowledge, and that he who would discover truth and bless mankind, must do so by a faithful investigation of her laws. He had long felt convinced that the Schoolmen, acute and profound as many of them were, had mistaken the road to knowledge; that they had been beating the air and spending their strength for naught; that the questions about which they had been employing their faculties were questions which could not be solved, which produced no fruit, and led to no practical result. He saw that after a thousand years of mental toil and effort, of airy speculation and intellectual hair-splitting, no discovery had been made, no stone had been up-turned, no knot untied. There was not a lack of toil or industry, of ploughing or sowing, but somehow no blossom appeared, no fruit was brought forth, no harvest

garnered in. Men seemed to be continually working in a tread-mill, but making no advance, continually describing a circle, leaving a certain point and returning to the same point. The past appeared to stretch out far behind him, as a vast desert waste in which men had been diligently casting seed, and harrowing it in with assiduous care, but reaping no harvest, gathering no fruit for their toil. He set himself to inquire into the cause of the strange phenomenon, nor was inquiry vain. He saw that the Schoolmen, the philosophers who went before, had completely mistaken the *method* by which to arrive at truth as well as the *end* for which truth should be sought. Men were seeking to arrive at truth by speculating and theorizing. Nature was to them a sealed book which they were forbidden to open at the peril of their lives. Forbidden to observe and investigate, they began to indulge in airy speculations, to frame imposing theories, and to devote their energies to questions which led to no practical result. But they mistook, likewise, the aim or end for which truth should be sought. They held that the aim for which truth should be sought, was, not to benefit man or to mitigate human woe, but to sharpen the faculties, to exalt the mind, to attain a visionary and impossible perfection. They despised the pursuit of comfort as unworthy of a man; to employ philosophy or investigation for the purpose of contributing to human well-being and alleviating human sorrow, was to degrade it, to make it vulgar, to strip it of its dignity. Arithmetic, for instance, was to be studied, not for the purpose of teaching men how to buy or sell or be good merchants or traders, but to whet the faculties, and to enable them to grasp abstract truth. Geometry or mathematics was to be pursued for the same reason; to employ it for any other purpose, to ap-

ply it, for example, to navigate a ship, or compute the area of a field, or the height of a hill, would be to degrade and vulgarize it.

Now, Bacon taught, in the first place, the true *method* by which science was to be advanced and discovery made. He proclaimed with a clearness and force never before equalled, that experiment and observation were the means by which discovery was to be made, science advanced, and Nature's laws unfolded, that no theory however imposing, no speculation, however lofty, was to be accepted, unless based upon carefully observed facts, facts drawn from Nature, by keen observation and pains-taking experiment. That the scientist, with experiment and observation as his companions, might go forth to his noble work of life, confident of success, sure to discover truth, to move on the car of progress, and to unravel the mysteries of the universe. Let the facts, Bacon taught, upon which you build your theory be few, your foundation narrow, and you commit the same blunder which the Schoolmen committed; your theory, however plausible and imposing it may seem, like a house resting upon a flimsy foundation, cannot withstand the onslaught of investigation; but, on the other hand, build upon a broad foundation of carefully observed facts, and your theory shall be true and abiding; it will stand the test of time, it will survive the fierce gale of hostile criticism, and will find a fitting place in Truth's glorious temple.

But not only did Bacon proclaim the true method by which science was to be advanced and truth discovered but he taught as clearly the great end to be aimed at in the discovery of truth, viz., the benefiting of mankind, the amelioration of the condition of the human race, the increase of human happiness. *Utility* and *progress*, he asserted to be the grand object to be

pursued in the discovery of truth. He saw that if any practical fruit was to be reaped, we must study nature in order to add to the sum of human happiness. The philosophy which he taught was thus an eminently practical one; it aimed at being useful and practical; its value was to be measured by the fruits which it brought forth. Bacon has been accused of lauding too highly those practical studies which link themselves with human life and activity, to the depreciation of those more abstract studies which whet the faculties and strengthen the reasoning powers. It is alleged that he made everything bow to the practical, and weighed all things in scales which it supplied, and that, therefore, the tendency of his philosophy is to lower man in the scale of being and to lead to a gross materialism. There is no doubt that Bacon did give large prominence to the practical, and subjected everything to a practical test, but he was led to do so, we should remember, not from a desire to depreciate or under-estimate the moral or spiritual side of man's nature, but from a vivid perception of the evils to which the old philosophy had given rise, from a profound impression of its powerlessness to benefit man or to discover truth. His clear perception of the evils to which it led may have driven him to the opposite extreme and caused him to despise everything which savoured of the old system. Human nature, we know, is prone to run to extremes; a bound in one direction is usually followed by as great a bound in an opposite direction. The human mind resembles the wave on the sea-shore: the further it recedes in one direction, the greater the force with which it advances in the opposite. But Bacon's mind was too fair and philosophical not to give to every system its due. While extolling the practical, he did not ignore or despise the moral or

spiritual; while maintaining that nature should be studied and science pursued because of the practical results which they bestowed, he did not ignore those studies which connect themselves with man as a moral being, and which have for their object the elevation of man. He saw in the system of philosophy which he taught, a panacea for the evils which the old philosophy entailed, and he extolled it. Through the faithful application of its principles, he saw a glorious future open up before his mind's eye. By means of it, the long and desolate winter was to pass away and a spring-time of joy to dawn upon the world; the streams of knowledge, long congealed, were to melt and to course through the world, bearing refreshment and fertility wherever they flowed. The barren field on which men had been for centuries toiling, was to become verdant and ripen into glorious harvests, man was to go forth to harness the wild forces of nature to his service and make them subservient to his will, and a golden age of discovery to dawn upon the world. As Moses of old ascended Pisgah and, from its lonely height, turned his eye, away from the dreary plains and bitter waters and barren wilderness stretching far behind, forward to the glorious prospect before him, the land flowing with milk and honey, watered by noble rivers and fragrant with luscious fruit and blooming flower, so from the Pisgah-height of his lonely eminence, may we imagine Bacon turning his eye, away from the dreary barren waste behind him, upon which his predecessors for centuries toiled, forward to the glorious future which expanded before him, to a land watered by ever-flowing streams of knowledge and clad with mental and moral beauty and verdure. We have entered upon that land, and are reaping the fruit of that philosophy which Bacon enunciated and taught. Cast your

eye back over the time which has elapsed since the age of Bacon, and you cannot fail to see that vast strides have been made, rich harvest fields of discovery reaped, marvellous progress made, signal mental and moral victories achieved. Before that time, all seems stationary; since, all seems progressive; before, men were speculative, given to theorizing; since, they are active, observant and practical; before, the desolation and barrenness of winter brooded over the world; since, spring-time has prevailed, a fresh life has been inspired, a spirit of activity and progress pervades the age, streams of knowledge have been set flowing, and fields of discovery are being crowned with verdure and fruitage. Nature's laws are being ascertained, her arcana unfolded, and her treasures unlocked. Knowledge has increased, science has made rapid strides, the wild forces of nature have been tamed and made to accomplish feats of which our ancestors never dreamed, and which, had they been foretold, they would have laughed at as the ravings of a madman. What marvels have been wrought by means of steam and electricity! Ships, laden with the products of distant climes, are wafted to our shores, defiant of wind and wave and tide; deep oceans have been bridged, and vast continents, between which deep oceans rolled brought within whispering distance of each other; our earth has been girdled with wires, along which with the speed of lightning, winged words run, and men are engaged in audible converse with each other, although separated by scores of miles. Railroads, like a large network, intersect the land, along which swift-flying trains glide, transporting their living freight from one part of the country to the other. The lightning flash has been robbed of its power to harm, and the wild storm of its desolating fury. By the numerous time and labour-saving machines of

the farm and manufactory, our harvests are mown down and garnered in as if by magic, and the products of the manufacturer largely increased in quantity and quality. And judging from the fruits which the past has yielded, may we not augur a bright future to come? Who can declare what rich discoveries are yet to be made, what harvests of knowledge are to be reaped, or what glorious intellectual and moral triumphs are yet to be won? As with prophetic eye, I peer into the future, a bright vision of glory seems to rise before me. I see Science go forth into the field of nature and unlocking richer treasures than those of the past, exploring untrodden paths and cultivating untilled fields. I see her riding forth to win more glorious victories than those already won, and returning laden with richer spoils. I see knowledge running to and fro on the earth, and discoveries more wonderful than those already made dawning upon the world. I see Nature and Revelation yielding up their most costly treasures to the earnest persevering toiler, Science laying her richest offerings upon the altar of Religion, and Religion consecrating and hallowing the offerer. I see Truth coming forth from her long struggle, crowned with victory and moving on in her majestic course, conquering and to conquer, until all discords are hushed in the universal harmony, until peace, heaven-born peace, throws her mantle over the earth, until before the sunlight of Eternal Truth, the mists of sin and sorrow flee away and the whole earth is radiant with her glory and the most glowing prediction of the fondest dream of the poet is realized :

“Far I dipt into the future, far as human  
eye could see,  
Saw the vision of the world, and all the wonder  
that would be ;

Saw the heavens fill with commerce, argosies  
of magic sails,  
Pilots of the purple twilight, dropping down  
with costly bales ;  
Heard the heavens fill with shouting, and  
there rained a ghastly dew,  
From the nations' airy navies grappling in  
the central blue.

Far along the world-wide whisper of the  
south wind rushing warm,  
With the standards of the peoples plunging  
thro' the thunder-storm ;  
'Till the war-drum throbbed no longer, and  
the battle-flags were furled,  
In the Parliament of man—the Federation  
of the world."

---

## THE ETYMOLOGICAL OBJECTION.

BY T. J. GODFREY, HAMILTON.

**A**MONG objections urged against the spelling reform this seems to be the most important. Men, who are convinced on every other point, fall back on this, confident that it is more than sufficient to condemn any proposition towards a change. It is proposed to examine the objection in the present paper, to see how far it holds good, and wherein it fails. It will be unnecessary to go into a consideration of the original intention of alphabets—that will be sufficiently obvious on a very short examination. I shall, therefore, confine myself closely to the etymological objection, and leave the many other arguments in favour of phonetic spelling for future treatment. I know when phonetic spelling is suggested to many people they pooh-pooh the idea—you can hardly induce them to examine it, they look on it as a good joke and protest it is too ridiculous for serious consideration. When you ask them what they can urge against it, they say: "Oh, it would ruin our language—it would destroy all our etymology." In fact they will grow eloquent with alarm at the frightful consequences of such a revolutionary idea, and instead of examining the proposition, they will bestow upon the proposer of such a

scheme all the choice adjectives of their vocabulary expressive of the assinine qualities of the man who could dream of such a sacrilegious innovation upon our language. This is the general method of meeting arguments favouring a reform. The idea of a page of phonetic spelling instead of the ordinary heterogeneous mixture of letters, fills them with a strange concern for the future of "our good old mother tongue as it was and is" and, as they hope, "will be." They draw up imaginary pictures of the dreadful consequences of such a scheme, and actually shudder at their own visionary creations. Such a class as this always exists—ready to cry down any progressive movement.

It is claimed in support of our present spelling that by it we preserve, to a certain extent, the history of the particular word ; but while this is true to a limited degree it is far from holding generally. However, this historical spelling is not consistently carried out, even if it be a benefit ; and if it be a benefit in its present incomplete usage, it would be much more so if carried out wholly ; hence we should take a retrogressive step and always insert the chief letters of all the roots. How many defenders of our present spelling

would be willing to do so? Yet such a step would be the logical result following from their own arguments. As now applied, our spelling is almost anything but etymological. The spelling of a word is influenced by Syncope, as in *head* from A. S. *heafde*, *lord* from A. S. *hlaford*, *round* from L. *rotundus*; by Aphæresis, as *bury* from A. S. *be-byrgan*, *uncle* from L. *avunculus*; by Apocope, as in *page* from L. *pagina*; by Prothesis, as *splash* from *plash*, *estate* from *state*; by Epenthesis, as *corporal* from *caporal*, *further* from *farrer*; by Paragoge, as in *sorcerer* from Fr. *sorcier*; by Metathesis, *burnt* from A. S. *brunt*, *purpose* from L. *propositum*, and also by Grimm's Law of which it is not necessary to give any examples. These examples do not speak well for the consistency of our "etymological" spelling.

To the insertion of extra-radical letters we may often attribute the wrong derivations suggested by the spelling of many words—as *island* suggestive of *insula* instead of *ciland*, *rhyme* suggesting Gr. *rhythmos* instead of *rime*, *hurricane* suggesting *hurry-cane* instead of *ouragan*, and many other such cases of mistaken derivation occur in this way. Again letters are often inserted to mark a preceding long vowel, as the final *e* in so many words, or to shew a short vowel as doubling the consonant, and also to make difficult combinations easily pronounced as in *yonder* where *d* is strengthening, the *n* in *messenger*, and *b* in *climb* and *abridge*. It is often almost impossible to tell which a letter is—radical or functional. The insertion of these letters—or orthographical expedients—is a constant source of annoyance: the radical letters are inserted, and also the extra-radical for the functions indicated, hence the confusion. Most people lose sight of this answer to the etymological objection, and while the objectors hunt up solitary instances of derivation ob-

scured by phonetic spelling and hunt them up like huge scarecrows, they too forget these inconsistencies of the system they are defending.

Archbishop Trench, in *Past and Present* (page 297), says: "The most frequent cause of alteration in the spelling of words is the wrongly assumed derivation" (in words like those quoted above, for instance). "It is sought to bring the word into harmony with, and make it by its spelling suggest, the derivation thus thrust upon it. Men will put life into a word—a life of their own devising—rather than it should be a dead and inert sign." Now I suggest that the reason men do so is not because they *will put life into a word*, but because *they are led by the analogy of other words*. These other words have a derivation with which men are acquainted and which is usually suggested by the spelling, hence they will assume that new words should resemble familiar forms in some way. If words were written phonetically no such mistakes could be made. The pronunciation would be absolutely fixed—a fact men could not help noticing, in the printed word especially, and it would be impossible to twist the word into harmony with fanciful derivations. With present spelling the word is certainly before people, but they cannot pronounce it unless they have heard it before. So if an approximate pronunciation can be found it can easily be twisted into a resemblance to some familiar form, and anything plausible will be eagerly seized.

Ability to trace a word by its spelling, though it may often assist us in arriving at its meaning, is not the way by which we generally acquire the peculiar function of each word. It is true we often use this historical spelling to arrive at the exact force of a word, but we could still do so with phonetic spelling, and it is only when we have a fair acquaintance with a

word that we think of applying this test. The greater part of our words are acquired quite independent of etymology. The manner in which we hear words used by others is the great source whence we obtain most of ours, and by this means we acquire a much more correct knowledge of the peculiar use of each word than we could possibly acquire by studying the derivation. This etymological spelling is more a matter for the antiquarian than one of usefulness. It matters very little how words are introduced or what their source may be, people will become acquainted with them and use them correctly. It is only when a man has acquired considerable education that he can see any connection between the derivation of a word and the word itself. What do most people know of derivation? How much use is it to them?

Again words often acquire peculiar meanings—meanings quite different from what the root represents, and it is only the philologist who can trace any connection between the two forms. Such are *villain*, *heathen*, *absurd*, *girl*, *speculate*, *fatal*, *fortunate*, *consider*. These also are illustrations of words whose spelling furnishes no possible clue to their meanings—unless some cotemporaneous history of the words be kept. The number of such words is great—these would be utterly lost without an accompanying cotemporaneous history—their historical spelling would not save them.

Double forms are often formed from the same root—these form pairs, each of which has quite a distinct meaning. No difficulty appears to be felt in tracing these forms to the same root—even though the two forms are spelled very differently. *Fidelity* and *fealty*, *superfices* and *surfaces*, *float* and *fleet*, *band* and *bond*, *tradition* and *treason*, now if each of these pairs can be traced—even in the altered spelling—could they not be as easily traced when

spelled phonetically? Phonetic spelling would not obscure such words as these, at all events.

Etymology is of very little practical importance. The ordinary man would not be able to use the word better if he were told *augur* was derived from *avis* a bird, or *melancholy* from Gr. *melan* black, *chole* bile, or *candidate* from L. *candeo* I am white, however interesting this may be to others—to him it would be so much useless information. To receive any benefit from derivation one must have some knowledge of all the languages from which we obtain most words, and this is impossible. It is true we may know something of Latin, Greek, German, and French, but what of Hebrew, Spanish, Scandinavian, Arabic, Hindoo, and others from each of which we get many words? The most enthusiastic conservator of present spelling could hardly ask such an extensive range of linguistic acquirements even to preserve it. Etymological spelling cannot be fully appreciated unless one has a comparatively good knowledge of other languages than his own. It matters very little to most people whence our words are derived; for all purposes of life it is sufficient that we have the word, and that we know its meaning and its use. This is the practical side of the question, and it is the most important. Ordinary men would be about as much benefited by a knowledge of the derivation of words as they would be if some one informed them who was the inventor of the tools with which they work. Such information adds neither to their usefulness nor comfort, and the character of the information conveyed by etymological spelling is about the same—hence few will care to retain such a useless ornament of our language. It is useless to urge sentimentalism; the age is beyond that, it looks for practical results and reforms.

Phonetic spelling would not obscure the derivation of any considerable number of words; it hardly affects any, and when it does the alteration generally favours the derivation. To say that the form of words would be greatly altered by phonetic spelling is to admit that the question has not been carefully examined. If any one will take the trouble of writing phonetically a few hundred words selected at random from the pages of a dictionary, he will see how very slightly the form of the word will be changed; and when it is changed the change will not be sufficient to destroy the connection between the present and original form. Would a scholar—or any one—be in any way disturbed by seeing *metaphor* spelled *metafor*, or would it completely overturn his knowledge of the language if he saw *deign* spelled *dan*, or *impugn* *impun*, or *yacht* *yot*, or *debt* *det*, notwithstanding Archbishop Trench sees so much eloquence in the silent letters of these and similar words? (*Past and Present*, 287.) When looked at in this way it resolves itself into this, “which is the language, the spoken or the written word?”—a question easily answered when we consider that the spoken word was the original, and that it can and did exist independent of the written word. Writing is only a conventional mode of representing language to facilitate communication between individuals. If that be the aim of the written word then it should assimilate as closely as possible to the spoken word and be spelled phonetically. Let many men declare that the written word is what

fixes the language—gives it stability—as the spoken word is always changing. Men may maintain such a doctrine with all their ability, but I think it only requires a very short examination to see its fallacy. If men have chosen a particular mode of representing a language it would seem a strange transformation to say that what was chosen to represent the language has become itself the veritable language—just as if the word *h-o-u-s-e* should become the thing itself.

This Etymological Objection looks formidable at first, but when we approach it critically it somehow becomes shaky, and eventually tumbles. It is one of those arguments men seize in despair and urge with alarm and hope. The etymology of words is of no use to any but the educated, and they would still have it even with a phonetic diction. Etymological dabblers may wish to retain our present spelling, but the real etymological scholar will be as much pleased by the change as any one. He will still have all the material he wants left him. I think it a piece of great presumption on the part of these etymological dabblers to ask a whole nation to continue an absurd system of spelling simply for the pleasure of the thing. The question merits serious consideration, but there will be no use sitting down to examine it with a sarcastic grin and a mind determined not to be convinced; and is there anything gained by simply contradicting arguments which cannot be refuted? That will not change facts.

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, or so that each distinct answer or subject may admit of an easy separation from other matter without the necessity of having it re-written.

SOLUTIONS.

Solutions by Prof. Edgar Frisby, M.A.,  
Naval Observatory, Washington.

107. If  $x + y - axy = 0$   
 $y + z - byz = 0$   
 $z + x - cxy = 0,$

and if  $azy + bxz + cxy = 0,$  then

$$\frac{a}{b^2 - (a-c)^2} + \frac{b}{c^2 - (b-a)^2} + \frac{c}{a^2 - (c-b)^2} = 0.$$

From first and third equations we have

$$y = \frac{x}{ax - 1}; z = \frac{x}{cx - 1}.$$

Substituting in (2) gives  $(a + \dots)x^2 - 2x = bx^2,$

whence  $x = 0$  or  $x = \frac{2}{a+c-b},$

similarly  $y = 0$   $y = \frac{2}{a+b-c}$

and  $z = 0$   $z = \frac{2}{b+c-a},$

and substituting the last values in  $azy + bxz + cxy = 0$  gives the relation.

111. Divide without expansion

$$(x^3 - \frac{1}{2}yz)^2 + \frac{27}{8}y^2z^2 \text{ by } x^2 + yz.$$

$$\left(x^2 - \frac{yz}{2}\right)^2 + \left(\frac{3yz}{2}\right)^2 = \left(x^2 - \frac{yz}{2} + \frac{3yz}{2}\right)$$

$$\left(x^2 - x^2yz + \frac{y^2z^2}{4} + \frac{9y^2z^2}{4} - \frac{3x^2yz}{2} + \frac{3y^2z^2}{4}\right)$$

$$= (x^2 + yz) \left(x^4 - \frac{5}{2}x^2yz + \frac{13}{4}y^2z^2\right),$$

whence dividing by the first factor we have

$$x^4 - \frac{5}{2}x^2yz + \frac{13}{4}y^2z^2.$$

Solutions by F. Boulbec, Univ. Coll.

110. Factor  $l(m+nx)^2 - (l+nx)(m+nx)$   
 $-ln(l+nx)(m+nx) + n(l+nx)^2.$

$$= (m+nx) \left\{ l(m+nx) - (l+nx) \right\}$$

$$- n(l+nx) \left\{ l(m+nx) - (l+nx) \right\}$$

$$= \left\{ (m+nx) - n(l+nx) \right\}$$

$$\left\{ l(m+nx) - (l+nx) \right\},$$

108. (See January number, 1880).

$$(1-x)^{-2n} = 1 + 2nx + \dots$$

$$+ \frac{2n-(2n+r-2)}{|r-1|} x^{r-1} + \frac{2n-(2n+r+1)}{|r|} x^r$$

$$(1-x)^{-n} = 1 + nx + \dots$$

$$+ \frac{n-(n+r-2)}{|r-1|} x^{r-1} + \frac{n(n+1)-(n+r-1)}{|r|} x^r.$$

Multiplying together we see that given expression equals coefficient of  $x^r$  in

$$(1-x)^{-2n} \times (1-x)^{-n}$$

equals coefficient  $x^r$  in  $(1-x)^{-3n}$

$$\frac{3n(3n+1) \dots (3n+r-1)}{|r|}.$$

112. Two equal circles intersect in  $A$  and  $B$  through  $D$  any point in the line  $AB$ ;  $DEC$  is drawn at right angles to  $AB$ , meeting the circles in  $E$  and  $C$  respectively; join  $BE$  and  $AE$  and produce them to meet  $AC$

in  $F$ , and  $BC$  in  $G$  respectively. Shew that triangles  $ACG$  and  $BCF$  are similar.

The angle  $ACB$  is common to the two triangles  $ACG$  and  $BCF$ . We can easily prove that  $AB$  bisects  $HE$  (by 6th Book), thus we get  $AH=AE$ , and angle  $ABH$  equals angle  $ABE$ , since the two circles are equal. But angle  $ABH$  equals angle  $ACH$ , since both stand on the arc  $AH$ .

∴ In the two triangles  $ABF$  and  $ACD$  angle  $BAC$  is common, and angle  $ACD$  equals angle  $ABF$ .

∴  $AFB$  equals angle  $ADC$  equals right angle. In the same manner angle  $AGB$  equals right angle.

∴ Angle  $BFC$  equals angle  $AGC$  equals right angle.

∴ Triangles  $AGC$  and  $BCF$  are similar.

113. Since angle  $AFB$  equals angle  $AGB$  equals right angle, a circle will go round quad.  $ABGF$ .

Solution by the proposer, Prof. Edgar Frisby, M.A., Washington, U.S. Frank Boulton also solved this problem.

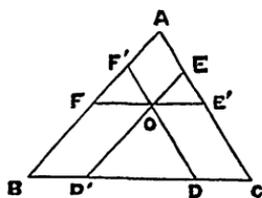
117. If  $a, \beta, \gamma$  are the lengths of the lines drawn through any point  $O$  within a triangle parallel to the sides, then will

$$\frac{a}{a} + \frac{\beta}{b} + \frac{\gamma}{c} = 2.$$

$$\frac{a}{a} = \frac{AF}{AB}$$

$$\frac{\beta}{b} = \frac{BF'}{AB}$$

$$\frac{\gamma}{c} = \frac{ED'}{AB} = \frac{EO + OD'}{AB} = \frac{AF' + BF'}{AB},$$



therefore

$$\frac{a}{a} + \frac{\beta}{b} + \frac{\gamma}{c} = \frac{AF + BF' + FF' + AF' + BF'}{AB} = 2.$$

### PROBLEMS.

137. The sides of a triangle  $ABC$  are divided in order in ratio  $m : n$ , and the points of section joined and a new triangle formed; the sides of this being divided as before, and so on to the  $r^{\text{th}}$  triangle.

Shew that the areas of the given triangle and the  $r^{\text{th}}$  inscribed triangle are in ratio

$$\left\{ \frac{(m+n)^2}{m^2 - mn + n^2} \right\}^r,$$

and also that any rational algebraic function of the areas of the odd triangles of the series will be to the same function of the areas of the even triangles in

$$\text{ratio } \frac{(m+n)^2}{m^2 - mn + n^2}.$$

138. Sum the infinite series

$$\frac{1}{1.2} \tan \theta + \frac{1}{2.3} \tan^2 \theta - \frac{1}{3.4} \tan^3 \theta - \frac{1}{4.5} \tan^4 \theta + \text{etc.}$$

139. Prove that

$$\left| \begin{array}{ccc} \frac{b+c}{a}, & \frac{a}{b+c}, & \frac{a}{b+c} \\ \frac{b}{c+a}, & \frac{c+a}{b}, & \frac{b}{c+a} \\ \frac{c}{a+b}, & \frac{c}{a+b}, & \frac{a+b}{c} \end{array} \right| = \frac{2(a+b+c)^3}{(a+b)(b+c)(c+a)}$$

Wm. J. R. McMINN, B.A.,  
Ottawa.

## PUBLIC SCHOOL DEPARTMENT.

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

## RECENT SCHOOL LEGISLATION.

OUR readers will have seen by the account of the proceedings of the last meeting of the Local House, that Mr. Crooks, contrary to what he had said to the deputation that waited upon him about the Superannuation Fund, has again been "tinkering" at school legislation, and, so far as the material interests of both scholars and teachers are concerned, his efforts have been as unhappy as they were last year. At the bidding of the Dominion Grange, whose functions in this instance assumed a Provincial character, and in answer to the demand of a few members who seem unable to realize the fact that they have to legislate not for a township, or a county, but for the whole province, he consented, apparently against his better judgment, to give trustees in rural sections a discretionary power to shorten the summer holidays from six weeks to four. It is true they are to get no legislative allowance for any additional teaching days, but this appeal to their cupidity will not increase their admiration for Mr. Crooks. It is, as Mr. Douglas remarks in the paper which we publish this month, not an easy matter to do away with the consequences of a bad law, and our Minister is likely to have an extensive experience of this. He may find it as difficult to restore the holidays to their previous length as he finds it to remedy the evil of his ill-considered measure last year for limiting the power of trustees, who are themselves directly responsible to the ratepayers, to raise money for building school-houses.

This is beginning to bear bitter fruit now. Last year several Municipal Councils gave evidence of their estimate of popular education

by refusing the grants asked for by Boards of Trustees for necessary school improvements, and within the last week or two, the Toronto City Council has struck out of its estimates above \$35,000 asked for by the Public School, Separate School and High School Boards of the city, to provide additional school accommodation which the increase of the city imperatively demands. The effort, feeble though it was, which Mr. Crooks made during the last session to render inoperative this obnoxious feature of last year's Act, shewed that he is aware of its danger; we trust he will renew it at the next session with more vigour, and will not again ignominiously withdraw from his position because of the noisy demands of such suspicious friends of our educational system as Mr. Miller of Muskoka.

As this effort was no doubt the result of mature deliberation, we think if even a majority of the House had been against him he should have stuck to what he thought right. We need hardly remind a man of Mr. Crooks' political experience that the *vox populi* is not always the *vox Dei*, and that Members of Parliament, whether ministers or private members, are not supposed to be mere puppets of the popular will, but are expected to exercise their own individual opinions in deliberating on the affairs of the nation. Mr. Burke put this matter so clearly before his constituents at Bristol that we cannot do better than quote his words, especially as there are more than Mr. Crooks who are disposed to waive their own opinions in favour of those of the majority.

"Certainly, gentlemen," he said, "it ought to be the happiness and glory of a

representative to live in the strictest union with his constituents. Their wishes ought to have great weight with him ; their opinion nigh respect. It is his duty to sacrifice his repose, his pleasure, his satisfaction to theirs ; and above all, ever, and in all cases to prefer their interest to his own. *But, his unbiased opinion, his mature judgment, his enlightened conscience, he ought not to sacrifice to you, to any man, or to any set of men living.* These he does not derive from your pleasure ; no, nor from the law and the constitution. They are a trust from Providence, for the abuse of which he is deeply answerable. Your representative owes you not his industry only, but his judgment ; and he betrays instead of serving you, if he sacrifices it to your opinion."

We can hardly expect these opinions to prevail with Ministers so long as they retain their present dread of adverse votes. This makes them the abject followers of public opinion rather than its leaders.

#### PREPARATION AND STANDING OF ELEMENTARY TEACHERS IN GERMANY.

BY DR. C. BALZER, OF EISENACH.

SUPPOSE I write the life of a teacher. After having gone through a public elementary school, beginning at six years of age and continuing till he reaches his fifteenth year, he enters a preparatory school ; in Prussia there are so-called "Präparanden-Schulen ;" in Saxe-Weimar, where I now am living, "Secundar-Schulen," in which the young men are better grounded in the subjects of the elementary school, and continue the course of its teaching, with a view of preparation for the training college. While in England a boy preparing for the teaching profession begins with teaching under the eyes of a practical teacher, in most cases at thirteen years of age, here he neither teaches nor even acts as a monitor ; he merely continues his usual studies, to which the practice of instrumental music (violin and piano, and sometimes the organ) is added. The curriculum of these schools generally lasts four

years. He then submits to an entrance examination for the training college, being now nineteen years of age. The greater part of those colleges are, as in England, boarding-schools ; but there are also day-schools, as, for instance at Eisenach, where the boys live in town. It may here be remarked that it is a very difficult question to decide which of the two systems is preferable. I incline to boarding-colleges situated either in the country or in small towns of not above 10,000 inhabitants ; for the young men, after leaving college, will in most cases be thrown into similar surroundings ; their living in a large town while they are being trained will not make them fitter for their after-life. They stay in the training-college for three years, occupied with whatever is necessary for their profession theoretically ; the studies in instrumental music are continued, and neither here nor in the preparatory school is vocal music neglected—on the contrary, the choir in the church and at funerals is composed of these young people. In the training college practical preparation is not neglected. The first two years are, besides their own lessons, mostly spent in attendance at the lessons of the ordinary teachers in the training-college school, and in pointing out in writing what they have seen and heard. In the third, and generally last year, the pupils themselves begin to teach, a master and one or more co-pupils are present, and all doings of the young teacher are afterwards criticised. The college teachers themselves are chosen from among the best in the country ; their lessons are model lessons, and their influence for good or bad is, of course, very great. The training-college school is divided into three or four classes. In Prussia there is generally a second training-college school, which in one class contains pupils of all ages from six to fourteen ; for the greater part of the village schools are one-class schools, and one teacher must be able to teach all the children, by him divided into subdivisions, which in turn receive his attention, and give him full occupation. In his third year the teacher-in-training has to give lessons, and to criticise

those given by his comrades. Then the final examination comes, comprising all the theoretical parts of his education, and a test of his power as a teacher. The examination is conducted by an examining body, consisting of the teachers of the college and a Government Commissioner. The certificate so gained entitles a young man to take a schoolmaster's place, but only as a probationer. In that state he may be removed from his place at a six weeks' or three months' warning. His salary is then usually not so high as it would be if his position were a fixed one. He is not allowed to have such a position before he prove, by a second examination, after two years' practical work, that he is indeed an efficient schoolmaster. During that time a local inspector and a Government inspector have the duty of seeing him at work, and reporting about him; should these reports be unfavourable, he will not at once be admitted to the second examination. This examination is by the same examiners as the first on leaving the training college, or before a similar commission at another training college, and the young teacher is expected to shew that he has not neglected his theoretical studies, and has made progress in the art of teaching.

When he has passed this second trial he may be promoted to a fixed position, and, having attained one, he cannot, even when he neglects his duty, be removed without a judicial decision, which is not given till several admonitions have proved in vain. The court which has to decide is not composed of judges; it is a court of discipline, consisting of members of the Government, and the profession itself is represented on it. The accused himself is allowed his defence, though not always *vis a voce*. The German teacher is not dependent on his employers for the tenure of his office; his salary is fixed (he cannot increase it by earning grants as in England), and is increased at certain intervals till he reaches the highest amount. If he does his duty and lives an orderly life he has no reason to fear for his position and for his family. When he has grown infirm, or when, from mental or physical disability,

he is unable to keep his school, a pension is given to him, and, in case of his death, a smaller one to his widow.

The entrance examination into a training college may be passed by persons who have not been at a preparatory school of the sort described above; but it is impossible at present to become an elementary teacher in Germany without having pursued the necessary studies and passed the examinations at a training college. Formerly it was possible; but though in some parts of Prussia teachers are still not sufficient in number, nobody would nowadays think of allowing another manner of preparation for this most difficult profession.

Teachers who by their industry have mastered languages or sciences beyond the range of a public elementary school, have an opportunity of raising themselves in their profession by passing an examination as rector—that is, head master of the larger elementary schools, generally composed of six or more classes, such as are found in all, but especially the large, towns; or teachers may qualify themselves for teaching the elements of a foreign language or of mathematics and natural history in one of the higher girls' school, or the so-called "Mittelschulen" for boys, by passing an examination as "Mittelschullehren." These schools, intended for artisans' children, differ from the elementary school by teaching one foreign language and the elements of Euclid, as you would term our "mathematical elements."

To be dependent, as is the case with English teachers, on the favour or disfavour of one or more persons for the tenure of office and the means of living and supporting their families, is not asked of the German schoolmasters. No doubt this humane manner of treating them has its drawbacks. There are teachers who keep their schools long after they have ceased to be good schoolmasters; but, as a merchant regards it as dishonourable to dismiss a good clerk because after thirty years' service he begins to get rusty and inefficient—as in the army a disabled officer is not dismissed without a pension—so a teacher, who has done his duty and is willing

to continue doing it, ought not to be thrown away at the pleasure of a School Board, a manager, or a head master. A term of probation is necessary at the outset, but when a man has proved his ability and fitness for the profession of a teacher, and when he once has obtained the position *optima forma*, when on account of his advanced years, he is no longer able to earn his livelihood by a change of profession, he has a right to demand to be allowed to remain in his position, or to be removed only with a due compensation for the loss of office.—*Schoolmaster.*

#### THE SUPERANNUATION FUND.

A NUMBER of members of the Legislature aired their opinions upon the Superannuation Fund in the course of a short discussion during the late session. They feared that it was going to be a heavy tax on the Province, and incontinently proposed to do away with it. Mr. Crooks, while admitting that the appropriation for the fund was increasing, did not speak so rashly. He repeated the promise he made to the deputation that waited upon him in reference to it, and we have no doubt he will redeem it by taking the whole subject into consideration during the recess. When these Members of Parliament propose such a summary way of dealing with the matter, we might remind them that teachers are intelligent human beings, and may not always be disposed to have their interests tossed about like a foot-ball. The teachers never sought, as a body, to have a superannuation fund in its present shape, indeed they fought strenuously against it, but now that its compulsory provisions have been in force for several years, the least they can expect is to have it put on a satisfactory footing, not after it has been dangling before their view to have it thrust contemptuously aside as if there were no vested interests concerned. Before it can be made to answer its purpose, it must be so enlarged by increased contributions from the teachers themselves, as well as from other sources, that the pension a retired teacher may get will be sufficient to comfortably support him. The period that must

elapse before a teacher can partake of its benefits must be shortened, especially for ladies. The method of becoming a pensioner must be made as simple as is consistent with the proper allotment of the fund. The discussion in the House on this matter is but one indication of the lack of regard for the interests and opinions of teachers which prevails with our local legislators. The proposed curtailment of the summer holidays is another. But the most flagrant was our disfranchisement by the withdrawal from us of the right to elect representatives to the Council of Public Instruction without granting us any equivalent whatever. With these facts before us, we may pertinently ask, Is it not time that teachers throughout the country began to exercise some direct political influence? Every teacher, whether male or female, is very favourably situated for directing opinion in our political affairs; and seeing the head of our educational establishment is a Cabinet Minister, it is becoming more apparent every day that the only way we can effectively influence school legislation is through the local members. Had every teacher brought to bear what influence he had upon these gentlemen we venture to assert that there would not have been such an outcry for the shortening of the summer holidays in the rural sections. In England the public school teachers are becoming a power that both parties are beginning to respect; there is no reason why it should not be the same in each Province of the Dominion.

#### THE PLACE OF WRITTEN EXAMINATIONS IN PUBLIC SCHOOLS.

BY J. A. FREEZE, A.B., NEW BRUNSWICK.

THE place of anything in school work is, I take it, to be determined by its importance, and its importance by its utility. Now, if I can shew that a regularly organized system of written examinations is of practical utility in the working of a school, I shall be entitled to claim for it the consideration of the teaching fraternity. Examinations are an admitted necessity in the school organization.

They may be divided into the oral and written. Provision has been made for the former in the schools of this Province by law. The introduction and use of the latter in the school, has been left to the discretion of the teacher.

In the first place, let us look at some of the *advantages* attending the written examination before we undertake to determine its place.

1st. *It necessitates revision.* If a man has an examination to pass on any subject, he *reads* for it. He reads and re-reads his textbook till he knows it; and I always noticed that the men who made the leading marks in the varied examinations of university life, were the men who read—who kept revising through the whole term, and always had their term's work fresh. What the university man can do and must do for himself, the teacher should help, encourage and urge his pupils to do for themselves. The fact is there can be no real progress—no substantial advance—made in any subject, except by continued repetition, till it becomes, as it were, a very part of the "original furniture" of the pupil's own mind. It is not so much the quantity as the quality of the work done, that constitutes successful teaching and enables the pupil to know beyond all question what he professes. Frequent reviewing, then, is the keystone to successful teaching. Devote one day per week to reviewing the advance work of the week; one day per month to the reviewing of the month's work; and, at the end of three months, sum up the leading points of the work and bring them before the classes in a compact whole, and clinch it all by a written examination. But it may be asked: Cannot all this reviewing and drilling be done in schools where there are no written examinations? What has the written examination to do with it? In answer to that, I admit it *could* be done, but *will* it? Where the written examination is fixed to occur at stated intervals, I believe it to be a healthy stimulus to careful preparation; and in preparing themselves the pupils will certainly acquire *ideas* on the subjects, which it will train them in the habit of ex-

pressing clearly. In the quaint language of Locke, "he that hath ideas on any subject, and cannot give expression to them as he needs, is much the same as he that hath *no* ideas."

Other things being equal, the best teacher is that one who is concise and precise—concise in giving all the information necessary about a subject in few words, precise in giving it accurately; and what applies to a teacher, applies with equal force to a pupil. But the ability to express concisely and precisely our ideas, comes to the majority of us only by practice; and the written examination comes in here with a power of its own to give this required ability. Further, it is the recognized test in the Normal School and University, and all higher institutions of learning in any country. Students take their class standing according to the average of their marks made on written examinations through the year. We are subjected to written examinations for our License, and, since these things are so, we cannot commence too early to familiarize our pupils with the system.

2nd. Another advantage of the written examination is to be seen in the fact that it *brings prominently before the teacher defective points in his own teaching.* When these are shewn him, he should invite his pupils to go again over the ground they have not properly understood. Sometimes, notwithstanding extreme caution, points will be passed over in class in a casual way, which, at the time of recitation, a teacher fancies his pupils know all about; yet, when they try to put their own ideas on paper, they will be found wanting. As before said, the written examination brings such matters prominently to the notice of the teacher. Perhaps I cannot do better than take an example from my own experience to illustrate what I mean.

It will be remembered that in the easy exercises at the end of chapter III. page 28, of Wormell's Geometry, a question is given, requiring the pupil to express in degrees, minutes and seconds, the angle between the hands of a watch at different times. We did these exercises in class, in a general way,

without any special drill. In making up my paper for the written examination in geometry, before the commencement of the summer vacation, I asked for the angle between the hands of a watch for hours different from those given in Wormell, and, greatly to my surprise, and not a little to my chagrin, I found that at least one-half of the class had given incorrect answers to my questions. It is in this way that a written examination is of service in bringing before us the small points, or rather, as said at the outset, the defective points in our teaching, which might otherwise entirely escape our notice.

It is not my intention to bore you with any finely-spun metaphysical theories as to the value of written examinations as a part of school work; but, in addition to all that I have said, I will add this other idea by way of concluding this part of my subject.

While it is admitted in mental science, that the memory depends upon a mechanism, over the working of which the will-power has only an indirect control, yet the culture and discipline by which that mechanism is shaped and directed is essentially within the domain of the will-power; and since all acquirement of knowledge depends not only upon our ability to store away ideas, but also upon our power of finding and bringing to the front the ideas stored away, we see that the cultivation of an exact and ready memory is one of the most important aims of intellectual education. And I believe that the written examination, apart from all utilitarian ideas of training our pupils for other examinations, comes in as an important agent for cultivating in them the power of recalling the ideas which are stored away in their minds, and of giving a ready expression to them as the occasion may require. So far, I have treated more particularly of what I conceive to be the *educative value* of the written examinations. A moment here to the place proper. It is needless for me to say that all my remarks refer to schools above the primary (grades 1 and 2). I would not have a written examination until the end of a year's work in the Intermediate Department for the grading of class B into class A

(grade 3 into grade 4), because, during the first year of the intermediate school, they are not much better prepared for passing examinations than when in the primary school, although they are being worked up to the required standard by their slate exercises and written home-work. In grade 4, I would have two, at the end of summer and winter terms respectively. In grades 5, 6, 7 and 8, I would have one every three or four months, that is, three or four per school year; not fewer than three nor more than four. These are examinations to determine the relative standing of the pupils in their classes. Values are assigned to the questions, and the pupils are told the number of marks they make. In St. Stephen, the custom holds of making each pupil keep a copy of the whole set of questions and his marks on each subject, together with the averages of the whole class, in a book provided for the purpose. After a pupil has passed through the other grades, and has been admitted to the *High School*, he knows all about the mechanical arrangement of a paper; and if the previous work has been thorough, he now has the ability which I mentioned when speaking of the utility of examinations; *i.e.*, he now can express, concisely, and precisely his ideas concerning the different subjects. In the *High School*, the number of examinations must depend, in great measure, upon the number of pupils and general scope of work. What applies to one school may not apply to another. Experience teaches. The year's experience through which I have just passed has convinced me that, for my own school, one examination at the end of each term is sufficient. The papers can be made searching and comprehensive, and good answers will require considerable thought and scholarship on the part of the pupil; and, on the part of the teacher, nice perception and careful judgment to assign the proper values to the different answers made by different pupils to the same question. These examinations entail a large amount of work upon the teachers, and may appear to some as the spending of energy to little profit; but our duty is to work, and if

the energy be spent in proper channels it will bring its reward; and I have tried to shew that this is one of the proper channels in which the energies of a teacher may be directed.

All that has thus far been said applies, with some slight modification, to the *miscellaneous school*.

In any system of graded schools to be conducted efficiently, it is an absolute necessity that the 'Trustees' examination for grading should be in writing, for where the grading is performed only by oral examinations, it must be done in a loose and inaccurate manner. This examination I would place at the end of the winter term; and no pupil should be allowed to pass from one grade to another without making a certain percentage—say 50 per cent.—as a minimum. Then, after making all necessary allowances for the customary number of dunces and hopeless cases that are to be found in all classes of all schools, if, at least, 70 to 75 per cent. of the remainder do not grade, it shews something radically wrong somewhere in the work of the teacher himself. It brings out the weak points of the year's teaching, and enables the representative of the School Board to say to its *employé*: Your work in this or that subject is not up to the mark; pay more attention to it in future. It also brings out clearly to the School Board, the thoroughness and efficiency of the work accomplished by each teacher, and is likewise a fair test of his professional qualifications.

#### GEOGRAPHICAL NOTES.

MR. BLUNT made a recent caravan journey from Damascus as far south as Jebel Shammar (Djebel Shomer in Campbell's Geography) in Arabia. He describes the country as a heavy sand. The Shammar Mountains rise about 2,000 feet from a plateau 4,000 feet high. The district immediately north is called Nefud, that south Nejd. Though it has the name of being a desert, Mr. Blunt found abundant evidence of vegetation, and says during the whole of his journey he was never so comfortably off for both pasture and

fuel as in crossing the Nefud. The ostrich is the most valuable and the rarest animal. The other animals are gazelles, wolves, foxes, hyænas, hares, the ibex, the marmot, and the wild cow or white antelope, which, he says, never drinks. There are immense numbers of lizards; few birds, consisting chiefly of hawks, which the Bedouins train for catching hares, etc., buzzards and wrens. The Arabs of Tiberias, who assured the author of Eothen that the king of the fleas lived there, when he complained of want of sleep, would surely regard Hail (not Heyel, Mr. Blunt says) as a paradise, for his dogs became free from them as soon as they reached that place, and he says fleas do not exist there. Dates and locusts form the staple food of the Bedouins of the desert when the herbage is scanty, and the camels are not in milk. Indeed, he says, not only human beings, but horses, dogs, camels, and nearly every animal of the desert devour the locusts, which, when boiled, have the flavour of green wheat! Horses are not at all so numerous in Arabia as is popularly believed; as proof of this he says "it would be possible to travel from one end of the peninsula to the other without having seen a single horse, or having crossed so much as a single horse track." Few of those he saw were over thirteen hands two inches high. "The camel is the universal means of locomotion with the Bedouins. The townspeople go on foot."

The government of the Emir of Jebel Shammar is by far the most powerful in all Arabia; it is mild and just, and so secure is life and property that "nowhere in Asia can be found a more prosperous, contented and peaceable community than in Jebel Shammar." Mr. Blunt and his wife, who accompanied him, were the means of making a marriage contract between an Arab friend who conducted them from Damascus and a girl at one of the villages on the way. After the contract had been signed and the girl's dower of £40 handed over to the girl's parents, it was determined that the young man should come in two years and fetch home his bride. For says our traveller, "it would

have been considered very incorrect to ask an immediate wedding; long engagements are the rule in Arabia, and patience is considered the distinguishing virtue of noble minds."

He returned with the Persian Pilgrims who were on their way home from Mecca. On his way northward to Meshhed Ali, near Babylon, he found that there was a gradual slope of ten feet to the mile. He passed numerous wells and reservoirs on the way, which had been built by Zobeyde, the wife of Haroun al Raschid, of *Arabian Nights* fame, for the benefit of pilgrims.

UNDER the auspices of the French Government, four expeditions will endeavour, during the present season, to penetrate into the regions through which it is proposed that the Trans-Saharan Railway should run. Of these, three will start from the side of Algeria, and the fourth from S. Louis, on the west coast of Africa.

#### POLITE ERRORS.—No. II.

THE correct application of the auxiliary verbs *will* and *shall* is of great importance to the sense of an expression, yet by many the rule, which clearly indicates their proper use, is but imperfectly understood. Murray says: *Will*, in the *first* person, *singular* or *plural*, intimates *resolution* and *promising*; in the *second* and *third* person only *foretells*; as "I *will* reward the good and *will* punish the wicked;" "We *will* remember benefits and be grateful;" "Thou *will*, or he *will*, repent of that folly;" "You or they *will* have a pleasant walk."

*Shall*, on the contrary, in the *first* person, simply *foretells*; in the *second* and *third* persons, *promises*, *commands*, or *threatens*; as "I *shall* go abroad;" "We *shall* dine at home;" "Thou *shalt* or you *shall* inherit the land;" "They *shall* account for their misconduct."

The following passage is not translated according to the distinct and proper meaning of the words *shall* and *will*: "Surely goodness and mercy *shall* follow me all the days

of my life, and I *will* dwell in the house of the Lord forever." It ought to be "*will* follow me," and "I *shall* dwell."

The *subjunctive* form of the various moods of verbs is frequently neglected when it should be employed. It is a general rule that when anything contingent, doubtful, or conditional is implied, the *subjunctive* ought to be used; as "If I *were* to strike him he would not resent it," not "If I *was*;" "He will not be pardoned unless he *repent*," not "unless he *repents*." The conjunctions, *if*, *though*, *except*, *unless*, *whether*, etc., generally require the *subjunctive* mood after them; as "If he *be* afflicted, let him not repine;" "Though he *slay* me, yet will I trust him;" "He cannot be clean unless he *wash* himself;" "No power, except it *were* given from above;" "Whether it *were* I or they, so we preach." "If he *was*," "though he *slays*," "unless he *washes*," "except it *was*," "whether it *was*," substituted in the examples above, would all be incorrect.

A valuable rule, and one that is much neglected, is taken from Murray, Volume I., page 274: "In the use of words and phrases which, *in point of time*, relate to each other, a due regard to that relation should be observed." Instead of saying "The Lord *hath* given and the Lord *hath* taken away," we should say "The Lord *gave* and the Lord *hath* taken away." Instead of "I *remember* the family more than twenty years," it should be "I *have remembered* the family more than twenty years." The following examples are irregular because a due regard is not observed in the relation of the tenses of the verbs employed: "The next New Year's day I *shall* be at school three years,"—"shall have been;" "I should be obliged to him if he *will* gratify me in this case,"—"If he *would*;" "They maintained that Scripture conclusion, that all mankind *rise* from one head,"—"have risen from one head;" "John *will* earn his wages when his service is completed," should be, "John *will* have earned his wages when his service *shall* be completed." Murray admits that it is not easy, in all cases, to give particular rules for the management of words and phrases which relate to one an-

other, so that they may be proper and consistent, but suggests that the best rule that can be given is this very general one: "To observe what the sense necessarily requires."

In relation to the use of the present and imperfect tenses of the verb *to be*—i. e., *is* and *was*—the following rule will generally apply: The present tense (*is*) must be used if the position is unalterably the same at all times, or supposed to be so; as "The bishop declared that virtue *is* always advantageous," not "*was* always advantageous." But if the assertion referred to something that is not always the same, or supposed to be so, the *past tense (was)* must be applied; as "George said that he *was* very happy," not "*is* very happy."

Present participles with the definite article *the*, or the indefinite articles *a* or *an* before them, become substantives, and must have the possessive preposition *of* after them; as "These are the rules, by the observing of

which you may avoid mistakes." It would be improper to say "by *the* observing which," or "by observing *of* which," although the phrase without either article or preposition would be right; as, "by observing which," etc.

The personal pronoun *who* is frequently substituted for *whom*: "*Who* did you see?" "*Who* is it written by?" "*Who* did you hear?" are all wrong. *Whom* should be used, as it is the object of the transitive verbs *see* and *hear* and of the preposition *by*. "Transitive verbs and prepositions govern the objective case."

Of the following rule there are many violations, a few of which may be sufficient. Rule: Pronouns should agree with their antecedents and the nouns for which they stand, in *gender* and *number*; as, "This is the friend *whom* I love;" "That is the vice *which* I hate;" "The king and queen had put on *their* robes."

THE NEW ENGLISH UNIVERSITY.—The draft of the proposed charter creating the Victoria University, after declaring the foundation of the Victoria University, that its seat shall be in Manchester, and Owens College shall be a college of the university, and that other colleges may from time to time be admitted, subject to certain prescribed conditions, empowers the university to confer all such degrees and other distinctions as are now granted by any other university in the kingdom, except degrees in medicine and surgery; to accept examinations and study, and residence at any other university as a sufficient qualification for the degrees of this university, provided the final period of study and the final examinations have been passed at the Victoria University; to grant degrees to present associates of Owens College without examination; to admit graduates of other universities to equal degrees in this university, and to bestow honours and certificates in other cases as may seem fit. The university is empowered to found and endow fellowships, scholarships, exhibitions, and other prizes for

which funds may, by devise, donation, grant, or otherwise, be supplied, and may make regulations respecting the same, but not so as in any way to interfere with the regulations respecting the entrance or admission of students into any college in the university. If any property is bequeathed or otherwise is left to the university without its object being definitely specified, or if there be a surplus of income, such property or income is to be applied for the benefit of all the colleges of the university equally.

FROM returns lately presented to the British Parliament, we cull the following statistics for 1879: The total number of elementary schools in England and Wales visited by Inspectors was 17,166. These were under 30,128 certificated teachers, and 30,473, pupil-teachers under apprenticeship. The number of scholars on the register was 3,710,883, the average attendance was 2,594,995, or about 70 per cent. of the registered attendance. The total expenditure was £4,773,824 or £1 16s. 5d. per scholar in average attendance.

## PUPIL-TEACHERS' DEPARTMENT.

## QUESTIONS

*Selected from those set to English Pupil-Teachers in February, 1880.*

## ARITHMETIC.

- Multiply  $3\frac{1}{2}$  by  $3\frac{1}{10}$  and divide  $\frac{20\frac{3}{4}}{3}$  by  $\frac{41\frac{1}{2}}{4}$ , and find the difference between the sum and difference of these results.
- A work consists of three volumes, 150 pages each, every page containing thirty-five lines, each line averaging eleven words, each word four and a-half letters. The author is remunerated at the rate of  $\cdot 15d.$  per letter; what amount does he receive.
- Express the sum of  $\frac{1}{2} + \frac{1}{3} + \frac{1}{4}$  and the difference of  $4\frac{1}{4}$  and  $18\frac{1}{2}$  as decimals.
- What fraction of a guinea, together with  $\cdot 0125$  of a crown, is equal to  $\mathcal{L}1\frac{1}{2}$ ?
- Express  $\frac{2}{3}$  of  $1\frac{1}{2}$  of a mile in French metres, taking 32 metres as equal to 35 yards.
- What is the amount of 18 per cent. on the money realized by selling 7,866 decanters at  $2s. 6\frac{1}{2}d.$  each?
- Find the *average* per year of the following incomes (a year being = to 12 months; a month = 4 weeks; a week = 7 days:--(1)  $8\frac{1}{2}d.$  per day; (2) half-a-guinea a week; (3)  $\mathcal{L}5$  a month; (4) 50 guineas a year.
- A woman sells on an average 17 dozen of apples per day at the rate of two apples for three halfpence. Having bought the apples at the rate of half-a-crown per hundred, what does she gain per cent.?
- Bought 20 Exmoor ponies, and sold 11 of them for  $\mathcal{L}200$ ; lost one, and received  $\mathcal{L}15$  each for the rest, realizing a profit of 25 per cent. on the whole transaction. What price did I pay on an average for each pony?
- Find the simple interest and amount of  $\mathcal{L}417$   $7s. 9d.$  for 1 year and 10 months, at  $4\frac{3}{4}$  per cent. per annum.
- If a dealer in coals sells them at  $\mathcal{L}1$   $1s. 6d.$  per ton, gaining thereby  $14\frac{3}{4}$  per cent., at what price did he purchase the coals per ton?
- I receive  $\mathcal{L}533$   $6s. 8d.$  for  $\mathcal{L}560$  due 2 years hence; at what rate per cent. per annum is the discount calculated?
- How much must I pay for apples, at the rate of  $\mathcal{L}0.49$  per dozen, to get enough to cut up so as to give 19 children each  $\frac{1}{2}$  of an apple; and what percentage of the quantity of apples purchased would remain over?
- Find the simple interest and amount of  $\mathcal{L}189$   $16s. 6d.$  for  $3\frac{1}{2}$  years; the do. and do. of the same sum for 341 days; at  $3\frac{1}{2}$  per cent. per annum; and add the *amounts* together.
- Taking the cost of flagstones at  $1s.$  per square foot, what sum must be given for stones; each 14 inches  $\times$  9, sufficient to lay down a certain court-yard, if a court-yard of half the size requires 560 stones each a foot and a half square?
- The working expenses of a certain company average  $\mathcal{L}62$   $10s.$  per day, and their weekly expenses amount to  $\frac{2}{3}$  per cent. of their gross profits for an ordinary year. At the same rate of expenditure and income, how much more *net* profit will they realize this year than they did in the year 1879?
- If you buy  $\mathcal{L}500$  stock in 3 per cent. Consols at  $96\frac{3}{4}$ , and sell out again at  $82\frac{1}{2}$ , what sum do you lose?

18. A and B each lend £256 for 3 years at  $4\frac{1}{2}$  per cent. per annum; A at simple, B at compound interest. State in decimals of £1 what is the difference in the total amount of interest which they are each entitled to at the end of the time.

19. A box with square ends  $1\frac{3}{4}$  feet wide takes  $84\frac{3}{8}$  feet of board, 12 inches wide, to make it. What is the length of the lid?

20. Reduce  $\sqrt{\frac{3^2 \cdot 5^2 \cdot 7^2}{1^2 \cdot 2^2 \cdot 3^2}}$  to the decimal of  $\sqrt{\frac{3^2 \cdot 5^2 \cdot 7^2}{1^2 \cdot 2^2 \cdot 3^2}}$  (to four places of decimals).

21. If the country has to pay at the rate of 7s. 3½d. per day per soldier in a campaign, what will be the expense of an army of 11,500 men for six weeks?

22. What is meant by "Proportion, or the Rule of Three?" A labourer working  $7\frac{1}{2}$  hours a day, does a job in 9 days; how many hours a day must he work to get it done in  $7\frac{1}{2}$  days? Shew that it is unnecessary to state this sum.

23. If a piece of land 375 ft. 6 ins. by 75 ft. 6 ins. cost £118 2s. 6½d., what will be the price of a piece of similar land, 278 ft. 9 ins. by 151 ft.?

24. Find the value of 959 cwts. 2 qrs. 20 lbs. at £2 12s. 6d. per cwt.

25. Find the value of 8,764 articles at £10 17s. 6½d. each.

26. Make out a bill for the following:—Silk dress,  $18\frac{1}{2}$  yds., at 5s. 6d. per yd.; 64 yds. of sheeting at 1s. 4½d. per yd.; 4 pairs of blankets at 18s. 4d. per pair; 3 ditto at 12s. 8d.; 26 yds. of huckaback at 10½d. per yd.; 9 damask tablecloths, 4 at 19s. 6d., 5 at £1 6s. 6d.

27. Find the cost of 1,296 articles at 16s. 10½d. each (by Practice).

28. Find the cost of  $165\frac{1}{8}$  cwt. at £2 5s. 6d. per cwt.

29. Find the value of 37 yds. 2 ft. 7 ins. of silk at 5s. 3½d. per yd.

30. Find the simple interest and amount of £417 7s. 9d. for 1 year 10 months at  $4\frac{3}{4}$  per cent.

31. A man after paying an income tax of 7d. in the pound, has £248 10s. 8d. left; what was his gross annual income?

32. If a tradesman with a capital of £2,000 gain £50 in 3 months, how long will it take him with a capital of £3,000 to gain £175?

33. Divide 1121'4 by '534.

34. Convert  $5\frac{1}{2}\frac{1}{4} + '75$  of  $\frac{1}{8}$  of  $7\frac{1}{2}$  into a decimal.

35. Find the value of 4'106 of 3 cwt. 1 qr. 21 lbs.

36. If a snail crawl on the average  $5\frac{1}{2}$  in. in 5 min. 3 sec., what fraction and also what decimal of a mile would it crawl in 2'4 hours?

37. Reduce  $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}$ , into equivalent fractions with a common denominator.

38. Simplify  $\frac{1}{2} + 10\frac{1}{2}$  of  $10\frac{1}{2} + 4\frac{1}{2}$  of  $3\frac{1}{2} - 4$ .

39. What rate in the pound must be levied to raise £463 16s. in a parish the rateable value of which is assessed at £6,184?

40. A boy after spending  $\frac{1}{3}$  of his money in oranges, finds that  $\frac{2}{3}$  of what he has left is 1s. 9d.; how much money had he at first?

41. If a man earn £17 6s. in 102½ days, how long will he be in earning 50 guineas.

42. The annual poor's rates on a net rental of £365 7s. 3d. amount to £36 8s. 9d., what should be the net rental of an estate for which the poor's rates amount to £24 5s. 10d. per annum.

43. A town which is defended by 1,200 men with provisions enough to sustain them 42 days, supposing each man to receive 18oz. a day, obtains an increase of 200 men to its garrison; what must now be the allowance to each man in order that the provisions may serve the whole garrison for 54 days?

#### GRAMMAR.

I. Point out the adjectives in the following

passage, and say to what class of adjectives each belongs :—

"They who live near fiery mountains see not only flames, but real lightning, real thunder playing about their burning mouths : and they see too whole hills, ay whole countries heaved up many feet in a single night."

2. Point out all the participles in the above. Shew how participles partake of the nature of both adjectives and verbs.

3. Point out all the words in the above which are in the objective case, and shew how each is governed.

4. Point out the conjunctions in the following, assign each to its proper class, and shew what sentences each connects :—

"Man may cut and change the earth—mining and quarrying and building—till it hardly looks like God's earth, but he cannot change the sea! There it is, just as God made it at first."

5. "Thou art a girl as much brighter than her  
As he was a poet sublimer than me."

Shew why "her" and "me" in the above are incorrect—*i.e.*, what rule (as to conjunctions) they violate.

6. Give examples of an infinitive phrase being used—

- (1) As the subject.
- (2) As the object of a sentence.

7. How may prepositions always be distinguished from adverbs? Give examples of prepositions that are sometimes used as adverbs.

8. Shew what rules and concords are violated in the following :—

The boy and girl was going.  
This is the boy which I named.  
This is the horse whom I brought.  
The room, whose ventilation is imperfect, is unhealthy.

9. Parse all the pronouns, verbs and adverbs in the following :—

"He was always cool and determined, and what he said had to be done, and they knew it ; but his way with his men was so frank and kind, and he was so ready to be the foremost in daring and enduring, that there was almost nothing that they would not do for him."

10. "This above all—to thine ownself be true ;

And it must follow, as the night the day,

Thou canst not then be false to any man."—SHAKESPEARE.

(a) Analyze the last two lines of the above.

(b) Point out and parse those verbs in the above which are in the imperative and infinitive moods.

(c) If the word "thine" (thine ownself) is in the possessive case, how do you explain its government? Account also for the case "our," "them," in the expressions *we, ourselves, they, them-selves*.

11. Shew what is the force of the Latin preposition, or affix, in the following words :—Arrogant, discovery, distil, irrigate, prevent, reflect.

12. "For in that sleep of death what dreams may come,

When we have shuffled off this mortal coil,

Must give us pause : there's the respect  
That makes calamity of so long life."

—HAMLET.

(a) Point out and analyze the substantive and adjective sentences in the above, and shew why each is so called.

(b) Parse fully all the pronouns in the above.

(c) Give in your own words the meaning of this passage.

13. Mention any four words in our language that are evidently of Latin origin, and four that are evidently of Anglo-Saxon.

14. Give, when you can, the ancient positive forms from which the following comparatives are derived—elder, nether, former, more, further.

#### COMPOSITION.

Write from memory the substance of the passage read to you by the Inspector.

"Servius being a favourite with Tarquinius, king of Rome, the rivals of Servius resolved to slay the king, lest he should make this stranger his heir, and so they should lose the crown for ever. So they set on two shepherds to do the deed ; and these went to the king's palace, and pretended to be quarrelling with each other, and both called on the king to do them right. The king sent for them to hear their story, and while he was hearing

one of them speak, the other struck him on the head with his hatchet, and then both of them fled. But the king's wife pretended that her husband was not dead but only stunned by the blow; and she said that he had appointed Servius to rule in his name, till he should be well again. So Servius went forth in royal state and acted in all things as if he were king, till after a while it was known that the king was dead, and Servius was suffered to reign in his place. Then his rivals saw that there was no hope for them, and they fled from Rome and lived the rest of their days in a foreign land."

Write full notes of a lesson on the formation and course of a river.

Write an essay on wages and the reasons why some persons are paid better than others.

#### GEOGRAPHY.

1. "Mountains and river systems form the natural divisions of a country; for England and Wales the clearest division is into four, viz., Northern, Eastern, Southern, and Western." Explain the statement in the first of these sentences, and give the exact force of the word *system*. What are the limits of each of these sections, and what mountain and river systems belong to each?

2. Describe the course of a ship starting from Gloucester keeping close to the south coast of Wales, crossing over to Queenstown, and then along the coast to Dublin.

3. What traces are still found in this country of its occupation by the Romans? Describe some of them as fully as you can.

4. In which of the British colonies is each of the following industries carried on, viz., the cultivation of corn, sugar, coffee, tea, cotton, rice, opium, cutting of timber, and digging for gold? Shew, in each case, that the particular colony is suitable for the particular occupation.

5. Give notes on a lesson to a Second Standard on "The Tropics and a Tropical Climate." Illustrate your lesson by some British colony, and draw a map of it.

6. What is "The Dominion of Canada"? Describe it fully, and say what you know of its history.

7. What are the "Tropics"? And what

is the meaning of the name? How many degrees are they from the Equator? Draw a map of the coast-line of America, from the Tropic of Cancer to the Tropic of Capricorn, that is (nearly), from Cape Sable to Rio di Janeiro. Mark the lines of longitude and latitude, if you can.

8. Give notes of a lesson on "The Formation of Coral Islands;" or, on "The Wild Animals of North America."

9. In what countries of Asia or Africa is each of these industries carried on, viz., the cultivation of sugar, coffee, tea, rice, opium, vines, ostrich-farming, and obtaining gold, diamonds, and pearls? Describe fully *one* of these occupations.

10. Give notes of a lesson on "The Tropics and a Tropical Climate." Illustrate your lesson by reference to Central Africa; and draw a map of the West Coast, from Cape Blanco to Cape Negro.

11. Draw a map of the coast-line from Cape Spartivento to Cape Matapan, marking also the Ionian Islands, and Sicily and Crete.

12. Which country of Europe has the strongest natural boundary, and which has the weakest? Describe each of them as fully as you can, and mention any facts of history which you remember in illustration of this point.

#### MENSURATION.

1. One diagonal of a quadrilateral, which lies outside the figure, is 70 feet; and the difference of the perpendiculars upon it from the extremities of the other diagonal is 16 feet. Find the area.

2. The radius of a circle is  $17\frac{1}{2}$  feet; find the area of a sector which contains  $24^{\circ} 25'$ .

#### HISTORY.

1. What do you understand by arbitrary Government? Mention periods of our history when that kind of Government has been attempted in England?

2. Upon what grounds did the right of the British Parliament to tax the American colonies rest? And upon what grounds was it resisted?

3. When and under what circumstances has the Government of England been conducted by a Regency? Sketch the character and career of any personage who ever held the rank of Regent.

4. Who was Lady Jane Grey? What claim had she to the throne?

5. Sketch the character and fate of James II.

6. Give some account of the Darien scheme.

7. After the conquest of this country by

Saxon tribes, what became of the Ancient Britons?

8. Who was Henry I.? Give some account of his children.

9. Sketch the character and fate of Richard II.

10. Write out a list of our sovereigns during the ninth century, with dates.

11. Give the dates and successors of Henry I., John, and Richard II.

12. Name our sovereigns from Charles II. to George II., with dates.

MR. LARMOR, of Belfast, who was senior wrangler at Cambridge this year, has been appointed Professor of Natural Philosophy in the Queen's College, Galway.

THE names of twenty-nine ladies appear in the list of candidates who passed the matriculation examination of the London University in January. Two of them are in the Honours division, and one of these, Alice Elizabeth Lee, of Bedford College, London, is at the top of the list, but is disqualified by age for the first Exhibition. Seventeen ladies passed in the first division, and five in the second division.

THE following extract from a letter by A. Gardiner Brown, one of the surgeons of the London Hospital, respecting the danger of boxing children's ears, will be read with interest by all teachers. : "On the subject of 'Boxing Ears,' I may say that in 1879 I saw seventeen cases of disease of the ears at the London Hospital and elsewhere, which undoubtedly were referable to this cause. The condition set up in the ear varies with the force of the blow and the strength of the patient, from a red and tender state of the drum to active inflammatory mischief ending in more or less complete destruction of the organ. The cases were mostly males, and I am persuaded that there are many others due, though not attributed, to the same cause. Those who have the care of the young, can-

not be too strongly impressed with the impropriety of the mode of punishment in question."

THE LONDON SCHOOL BOARD'S NEW SCHEME OF SALARIES.—Masters in schools of 200 accommodation or less are to receive £1 for each school place or seat; in those from 201 to 400 accommodation, £200, with an additional 10s. for each school place over 200; in those from 401 to 800 accommodation, £300, with 5s. for each school place over 400; and in schools with accommodation for over 800 children, £400, with 2s. 6d. for each school place over 800. Head mistresses of girls' and infants' departments are to receive three-fourths of the salary for masters, unless the accommodation is exceptionally large or small. In these cases the salary will be specially fixed. Head assistants are to be appointed in departments of 500 and over, with salaries of £175 in the case of masters, and £135 in the case of mistresses; and in departments of 400 to 500, with salaries of £150 and £120 respectively. The salaries of certificated assistant masters consist of a sum varying from £60 to £90 according to previous training and success, with additional amounts for parchment certificate if well endorsed, and for additional qualifications, such as drawing certificate, advanced science certificates, matriculation, and B.A. degree.

## HIGH SCHOOL DEPARTMENT.

## DRAWING AND PAINTING.

At a meeting of the Council of the Agriculture and Arts Association, Jas. Mills, Esq., M.A., Principal of the Guelph Agricultural College, introduced the question of giving, at the Provincial Exhibitions, special prizes for drawing in High Schools and Collegiate Institutes. The following prizes to be offered at the next exhibition, will shew to what extent his efforts in our behalf have been successful :

|                                   |        |
|-----------------------------------|--------|
| Pencil Drawing, 1st.....          | \$4 00 |
| “ “ 2nd.....                      | 2 00   |
| Crayon, plain, 1st.....           | 4 00   |
| “ “ 2nd.....                      | 2 00   |
| Crayon, coloured, 1st.....        | 4 00   |
| “ “ 2nd.....                      | 2 00   |
| Oil Painting (any subject), 1st.. | 5 00   |
| “ “ 2nd..                         | 3 00   |

These prizes are open only to pupils of High Schools and Collegiate Institutes, for work done while in attendance at said schools. The idea is a good one. We hope that this is only a beginning, and that the response from our schools will justify the Council in shewing more liberality. The omission of prizes for water-colours is remarkable. In few, if any, of our schools is painting in oils taught, while in several at least there are good classes in water-colours.

School productions in oils can be only daubs at best, and, if no absolute standard has been set up, the \$8 devoted to this part of the scheme might be applied with more effect elsewhere. When on this subject we may remark that the Ontario Society of Artists, a Provincial body, and one receiving aid from the Provincial Treasury, offers prizes also, but confines the competition to the Toronto schools. That it offers these prizes was one of the grounds on which it

claimed a larger legislative grant. It is only fair that students from all parts of the Province should be allowed to compete for these exhibitions, and it would be to the advantage of the Society itself to adopt this course.

## THE NEW REGULATIONS.

I. The revised regulations referring to First Class Certificates, so far as they refer to University equivalents, meet with our full approval. For some such scheme we have contended from the first. As we have shewn, the beneficial results will be felt throughout our School system. The mere existence of such options will induce many a teacher to take a University course who, a few years ago, would have scarcely dreamt of such a venture. It is a matter of common remark, amongst those masters who are in a position to observe the results, that the recruits for University classes even now are more largely from amongst teachers than they used to be; and the University class lists shew that they are generally the most promising of its students. Every possible inducement should be held out to the Public School Master to avail himself of the advantages of our National University. The benefit to the professor will be manifold, while that conferred on the community at large will be of inestimable value. In view, too, of the increasing number of grown-up young men and women who desire to obtain the University *imprimatur* for their attainments, we hope to see a cancellation of two University Regulations which to us seem uncalled for and inexpedient. One of these limits the age of those eligible for Junior Matriculation Scholarships, and the other makes it necessary for the winner of a

scholarship in any year to attend lectures during the same year. The reason for such restrictions is not self-evident, and we should be sorry to think that they have been adopted in the interests of any institution; but it is notorious that they are believed to have been pressed by the supporters of Upper Canada College. There is now more reason than ever why these obnoxious regulations should be rescinded. A scholarship is designed to reward merit and to help the deserving; no factitious barrier should be set up—particularly if the suspicion to which we above refer has any foundation in fact. The effect on the scholarship of entrants is undoubtedly bad; for many a young man now takes Senior Matriculation who, did the objectionable rule not exist, would enter for the Junior, and come out at the end of his course a better scholar. How many Senior Matriculation scholars maintain their standing throughout their course?

II. The country generally is, no doubt, ready for the abolition of County Boards and Third Class Certificates. There may be localities where the change may produce temporary inconvenience, but the Province must be now well stocked with holders of Intermediate Certificates. The standard of this examination is by no means a high one: it is one at any rate to which even our lowest grade of Teachers may easily attain, and the High Schools have shewn their ability to produce a copious supply of the non-professional article. The wretched condition of education in counties where better might be expected, is due mainly to the parsimony of Trustees and its natural outcome, the Third Class Teacher. The change will benefit the system both directly and indirectly; for hereafter the Public School Masters will prepare candidates for the Intermediate even more generally than at present. The time may come when most of this class of work will be done by them, and the High Schools become high in more than name. As matters stand, too much of the lower grade of work is being done in these institutions. By far the larger share of the High School grant goes to pay for doing *infra*-intermediate

work—for doing what to all intents and purposes is largely Public School work. In their zeal for a large influx of pupils, the High School Masters have really over-reached themselves. The abrogation of Third Class Certificates will in time do much to remedy this state of affairs.

III. No. 7 of the Regulations that refer to the examination and admission of pupils to High Schools and Collegiate Institutes, directs that "where in any county there are more High Schools than one, and the County Public School Inspector is therefore unable (*sic*) to attend at but one of such High Schools, the High School Master of any other High School shall act as presiding examiner in the place of the County Inspector at the examination for admission at such High School, etc."; and No. 1 fixes the date of the next Entrance Examination for the twenty-ninth and thirtieth days of June—the two days immediately preceding the Intermediate and First Class Examinations, when every High School Master will be engaged in putting the finishing touches on his classes, and when his absence would be impolitic and for many reasons undesirable. Had the times for holding the Entrance and Intermediate been as in former years concurrent, the arrangement would have been an admirable one. No better presiding examiner could be found than the High School Master—we even go so far as to say the High School Master of the locality—for if the Master is fit to be entrusted with the examination of the papers, he is surely morally capable of presiding at the examination, and, as a rule, the Public School Inspector is as anxious to pass the pupils of his schools through the meshes as the High School Master can possibly be to admit them.

We trust that the change of date is an oversight: whether or not, it is an error that should be corrected.

In the many Public Schools which have entrance classes in course of preparation, work will practically cease when the class leaves for examination; for few return after the examination is over; while the teacher, forced to teach till the legal time for closing,

will find himself bereft of his best pupils, and more than half-hearted in whatever work remains for him to do. No one but the practical teacher knows how quickly the process of disintegration goes on after it has once set in, and how dispirited all work becomes when the stimulus is withdrawn.

#### UPPER CANADA COLLEGE.

WE had intended to take up this topic in the present issue, but we find that we have already exceeded our limits, and the subject is fortunately one that will keep. The question is now up for discussion. The recent agitation has been erroneously laid to the account of the High School Masters. In former years a few of them did their best to have the abuses then complained of fully understood and partially remedied, but they were unsuccessful. Time, however, works many a cure; and there are few who will now maintain that Upper Canada College has not outlived its usefulness. If the plutocrats and aristocrats of Ontario want a school for themselves, they should not expect the Province to pay more in aid of it than it does for others of a more prominent character.

#### EDUCATION IN QUEBEC.

THE month of February saw the first dawn of the rising sun of Educational Reform in the Province of Quebec. In that month, the Committee of Council on Education, moved by what they had discovered of the state of education in Quebec, and by the intellectual life and activity of the sister Province of Ontario, began to introduce the

needed reforms. High School Inspectors have been furnished with new and very excellent forms for their guidance when inspecting. Before the Inspector enters the school, he has from one of these new forms obtained an accurate knowledge of the amount of study done by every class since the beginning of the school year and of the school books used, and before he leaves he has a record on another form, of the percentage of marks obtained by every scholar in every subject. From these percentage marks the various averages of classes, subjects, and of the whole school can easily be obtained. Thus the Committee has the means of seeing at a glance the exact standing of every High School in the Province. Distinguished educationists have pronounced these forms to be the very best they have ever seen. The Committee has also taken the want of uniformity in text-books into consideration, and at no distant date there will be a series similar to those used in Ontario. Indeed, but for the fact that school books here are very cheap, the whole Ontario series might be adopted. But it will be somewhat difficult to educate the people of this Province to pay the prices current in Ontario for school books.

The general tendency of High School teaching all throughout the Province is University-ward, and this tendency will more and more be increased as the teachers feel the increasing attractive influences from McGill and other centres of learning. Among men of standing in the educational world the feeling seems general that they will not rest till education in Quebec shall rise up and stand forth the pride of the people and the envy of other countries.—*Communicated.*

## CONTRIBUTORS' DEPARTMENT.

## THE TORONTO NORMAL SCHOOL.

## A STUDENT'S EXPERIENCES.

To the Editor of the C. E. M.

SIR,—Having been a successful student at the Toronto Normal School, and fully realizing the injustice to which the students in training are subjected, I consider it my duty to the public to give a short account of the manner in which affairs are conducted in that Institution.

## LOSS OF TIME.

For the first two or three weeks of the term nothing of any account is done. The students are told to assemble at the legal hour in the waiting-room, where they generally remain till about 9.15 or 9.20, before being rung to the class-room; and frequently, between the dismissal of one class and the calling of another, there is an interval of from fifteen to twenty-five minutes. This state of procedure lasts for about the first two months. After about a month has passed a time-table is constructed, but not adhered to; so that the student very seldom knows what to prepare. According to the time-table he prepares a certain subject, and when the time for that subject arrives, some other subject is taken; thus causing him generally to be unprepared, merely through a want of system.

## USELESS EXPENDITURE IN BUYING UNNECESSARY BOOKS.

The student is compelled to buy a number of books which are not used at the Normal at all, and which he will not need after he leaves that Institution; and he is suspended if he enters the class without them. He is compelled to purchase his books at the Education Department, when the same kind can be pro-

cured at a much lower price at bookstores in the city. For example, the writer bought Mrs. Graham's "Reasonable Elocution" at Messrs. Willing & Williamson's, for \$1.25, when the Education Department charged \$1.40 for the same book.

## MUSIC AND DRAWING CLASSES.

Through some cause, probably known to the principal, the music-master fails to make an appearance for several weeks at a time, and even when he is present, the lesson, and manner of conducting it, is of very little value to the student. When the writer attended, he received but six lessons in music during the whole term.

In the drawing exercises the student is generally at a loss to know what to prepare, or how to prepare it. He cannot get information from the teacher as to what he may expect to be examined upon, for it seems the teacher is kept in ignorance of that fact himself; and thus, at the final, he does not get questions bearing on anything that he has studied during the term. The manner in which these two subjects are taught provokes a good deal of criticism among the teachers in training.

## NOTES ON EDUCATION OF LITTLE VALUE.

The student derives little, if any, benefit from the notes on Education that are given him to prepare, and they cannot be brought to bear upon any question given at the final examination; and more than this, they are not even in accord with the system pursued in the Model School.

## FINAL EXAMINATION.

Students at this examination are not all served in the same way. At one examination, the students are allowed to read their

own selections; at another, the examiner selects the piece to be read; thus giving one whose ability to read well is not equal to that of another an opportunity for making a far higher mark.

When the examiner selects the piece, about one quarter of the students have not seen the selection before they are called upon to read, then it is generally found out by those who have not read, and they have the piece well prepared by the time they are called upon. Very little effort is made to prevent this unjust state of affairs.

The examiner in Music, understanding the slight attention given to the teaching of that subject, cannot give a just examination. All have the same privileges, but the examination is not what should be expected from those who are supposed to teach music in a school.

The writer in his examination was asked but three questions. (1) What is the signature of this piece of music? (2) Where is "do" found? (3) What is the name of the first note? He then was asked to run up and down the common scale, after which he was told that he might sing a song if he wished to improve his marks. For this examination he received about 50 per cent. In such an examination one who knew very little of the theory of music, could make as high a mark as one well versed.

The examination in Drill is somewhat similar to the above. The student has the privilege of giving two or three commands, and from this his whole knowledge of drill and ability to command are judged. The writer saw several students who, previous to their coming to the Normal, had had a good course in drill at a Collegiate Institute, but were nearly plucked by this mode of examining; and others that had not studied drill before coming to the Normal, who, in fact, owned that they knew very little about drilling a class, but who made a high mark.

Students are told at the Normal to teach Mental Arithmetic in the morning, when the brain is not wearied; but the examination in this subject is called on immediately after some difficult memory subject. They are

not told when they may expect an examination in this subject, thus affording no time for review; but are called in after some such subject as Hygiene or Education, and the Mental Arithmetic papers are unexpectedly placed before them. Several have failed on this account.

#### MODEL SCHOOL.

This is the best feature in connection with the Normal. This school affords excellent advantages to the student in learning the Art of Teaching, in fact it is the only part of the Institution that is of benefit to the would-be teacher.

#### LIBRARY.

The valuable library, in connection with the Normal Reading Room, is locked up during the whole session, and is of no service whatever to the students.

These are undeniable facts.

SUCCESSFUL STUDENT OF '79.

#### HIGH SCHOOLS AND COLLEGIATE INSTITUTES.

To the Editor of the *Canada Educational Monthly*—

SIR,—The peculiar character of "Whitby's" recent letter on this subject tempts me to offer a brief reply. Permit me to say, in the first place, that my communication was not a defence of the present method of creating Collegiate Institutes. I merely dealt with three emphatic assertions that constituted the principal part of the article taken from a Whitby paper. They were, (1) That a *purely fictitious distinction* has been established between Collegiate Institutes and High Schools, whereby the former draws \$750 per annum more than High Schools from the legislative grant; (2) That it is well known that in *these Collegiate Institutes (ista gymnasia)* boys are forced into Latin, simply for the purpose of laying claim to the grant; (3) That these Institutes "spring up" where the population rises over 4,000.

With much in this article I quite agree, but, believing that the above statements

should not pass unchallenged, I confined my remarks to *them*, reserving the consideration of new schemes until the assertions quoted received due attention. Surely this is not an illogical order of approaching such a question. I am now charged, however, with evading *the* question, and with attempting to raise side issues merely to divert attention. My erratic course, moreover, is charitably accounted for by a pardonable trepidation at the unwelcome spectre of a departing Government grant! One would suppose that if our claims to this special grant are unjust, that if a system of spoliation and monopoly is being carried on, the "bonus" must of necessity be withdrawn. "Vested rights were not to be interfered with," but these could hardly include a *special* grant given on an assumption now proved to be *false*—on "distinctions" now shewn to be "merely fictitious." The charges once sustained, of course both title and grant should be withdrawn, and High Schools started *de novo* on a race for distinction. This much by the way. I have only to say that, if the points above enumerated do not constitute the main thoughts of the article in question, I entirely misapprehend its import.

"Whitby" prefers to consider these complimentary allusions merely as introductory, leading to a main question. In other words, he assumes that he is at liberty first to place Institutes on a fictitious basis; to declare that they are maintained by a process of questionable honesty; that they are of spontaneous growth; and then serenely pass on, expecting his readers as meekly to follow him!

The main question, it now appears, was the relative value and claims of *boys and girls* in our High Schools; the relative importance of Latin and Greek, compared with "other subjects, of quite as much value as the ancient classics." He certainly does not give your readers credit for ordinary intelligence, or he would not thus attempt to cover his tracks.

These questions are not introduced until after the Institutes are charged with systematically robbing the other schools, with par-

ticipating in "abuses which are crushing the life out of our High Schools." To "Whitby" such charges seem a bit of pleasantry. Collegiate Institute trustees and teachers, however, may possibly deem them worthy of more than a passing notice. I therefore endeavoured to prove that he was in error in the first place, as to the distinction between Institutes and High Schools, by shewing, (1) That the thirteen schools now ranking as Institutes have an attendance of from 80 to 250 each in Latin; that these constitute about one-half the classical pupils in the Province; (2) That, by reason of the special grant, Institutes are enabled to give these pupils the almost exclusive attention of a classical master—an advantage not generally attainable in other schools; (3) That, by consulting our University lists and departmental returns, it will be seen that this work is not only *extensive* but also characterized by an average *thoroughness*; (4) That in these particulars the original design of establishing Institutes was fulfilled; that therefore the distinction between them and ordinary High Schools is *not* "purely fictitious."

According to "Whitby's" logic, this proves the reverse of what I intended; in fact it proves nothing, unless it be that in the Institutes in 1878 "there was little Latin and less Greek." Why so? Simply because the numbers given include *girls* in Latin as well as boys! This is a fair specimen of the *arguments* adduced throughout his reply. Comment is needless.

The statement as to our forcing boys into Latin was next referred to, and such a course shewn to be both impracticable and unnecessary; that the serious charge would equally apply to "the many High Schools which have 59 in Latin, instead of 60—the only distinction in many cases." To these statements "Whitby" offers no real reply; but instead favours us with an amusing and specious change of base not often surpassed. "Forced into Latin" was meant to signify, not coercion, but "rapid development" in preparatory hotbeds, etc. The force seems to turn on the meaning given to the preposition "into." "Forced *into* Latin," please observe, here

signifies "in," or "through," or "towards" Latin, horticulturally speaking. Doubtless this explanation will satisfy Collegiate Institute masters. If not, it will merely prove that they are not conversant with "historical" allusions on this subject, that they are unfamiliar with the simplest process in hot-bed culture, or that in an evil hour their reasoning powers have been dwarfed, possibly by the *inverting* process referred to.—*Requiescat.*

In the third place, if his statement be correct, it follows that localities where Institutes are situated deserve no special credit for liberality and enterprise in educational affairs; that the Institutes exist merely by reason of a large local attendance, etc. I contended that these places which had at first complied with initial conditions, in many cases had far exceeded these requirements; that great expenditure had been incurred in local improvements; that in fact nearly one half the amount expended in Ontario for salaries, improvements, etc., was in connection with Institutes—much of this being caused by a competition that induces municipalities to devise liberal things. This being the case, it could not be fairly said that Institutes "spring up" as a matter of course. The credit *claimed* for these localities was cheerfully accorded to those whose High Schools are rapidly developing into Institutes, by reason of similar local enterprise. The multiplication of these secondary schools was regarded as a hopeful indication of the rapid improvement in our High School system.

I am taken to task for promulgating "the startling theory" that it is a principle of the Government in distributing school grants, to regulate the appropriations to some extent according to the sums raised in the locality. I hesitate not to say that is a fundamental principle, and runs through our entire school system. (1) It applies to every Public School, which can receive nothing without the raising of a "local equivalent." (2) It applies to High Schools, whose very organization depends on a certain sum being guaranteed by the municipality, and whose annual grant is increased or diminished, even to an odd cent, according to local enterprise in provid-

ing accommodations, apparatus, full staff of well-qualified teachers, etc. (3) It applies to schools in poor townships, and to superannuated teachers. (4) In legislating on this subject constant reference is made to this aspect of the question. (5) The High School Inspectors' Report of 1877 refers to this general principle in the words "these grants were intended to supplement and stimulate local effort," referring to localities not poor but penurious, and threatening, on this account, to close their schools. Undoubtedly the principle generally prevails, that those localities are aided most liberally that are most willing to help themselves.

The arguments (?) of "Whitby" are further strengthened by passing criticisms of certain terms; for example the words "centres of classical and general culture" are four times quoted, just as if he really believed, or expected anyone else to believe that they were used in an invidious sense. So also the terms "Government" and "generous" do not escape criticism. Strange to say he *did* overlook the former word, standing as it does the *first word* in the article he defends. With a Cabinet Minister at the head of the Education Department, *we* were quite correct in referring general regulations to the *Government*. How the Minister escaped his notice, when, speaking of grants to schools, he used the words "*generous* expenditure sanctioned by *Government*," is past comprehension.

In regard to my naming certain schools as within a step of Institute rank, hinting at the same time, that once in such a position, these and similar charges would disappear, I can only say that the uncharitable remarks referred to provoked a well-deserved rebuke. "Whitby's" explanations extract much of the sting from the first article; and, *and*, *and* the meek spirit of his interpretation more fully characterized the original, we would not have seen the "odious comparisons" now so repulsive to "Whitby."

So much for *side-issues*. Want of space forbids any reference to substitutes suggested for the present "Latin test." I can only say, in conclusion, that I heartily approve of some modifications proposed, and trust that candid discussion may lead to the adoption of certain desirable changes.

March 19th, 1880.

JUSTITIA.

## CONTEMPORARY LITERATURE.

STUDIES OF THE GREEK POETS. By John Addington Symonds. New York: Harper & Bros.; Toronto: James Campbell & Son.

IN the closing strain we find the key-note to these delightful essays on the Greek song-sters. "Nature is the first, chief element by which we are enabled to conceive the spirit of the Greeks. The key to their mythology is here. Here is the secret of their sympathies, the well-spring of their deepest thoughts, the primitive potentiality of all they have achieved in art. What is Apollo, but the magic of the sun, whose soul is light? What is Aphrodite, but the love-charm of the sea? What is Pan, but the mystery of nature, the felt and hidden want pervading all? What, again, are those elder, dimly discovered deities, the Titans and the brood of Time, but forces of the world as yet beyond the touch and ken of human sensibilities? But nature, alone cannot inform us what that spirit was. For though the Greeks grew up in scenes which we may visit, they gazed on them with Greek eyes, eyes different from ours, and dwell upon them with Greek minds, minds how unlike our own! Unconsciously, in their long and unsophisticated infancy, the Greeks absorbed and assimilated to their own substance that loveliness which is left for us only to admire. Between them and ourselves—even face to face with mountain sky and sea, unaltered by the lapse of years—flow the rivers of Death and Lethe, and New Birth, and the mists of thirty centuries of human life are woven like a veil. To pierce that veil, to learn even after the most partial fashion, how they transmuted the splendours of the world into æsthetic forms, is a work which involves the further interrogation of their sculpture and their literature."

Mr. Symonds has approached his task with an overflowing love of Greek literature, with a keen appreciation of Greek art, and after a personal intimacy with the scenes amid which Greek literature and art arose. He also applies, to the illustration of his subject, the genius of modern literature, French, Italian, German, and above all our own English. In this last phase of his illustration, Mr. Symond's recent study of Shelley shews his feeling and poetic insight. And here is this newer method of analysis as applied to the *Hero and Leander* of Musæus, and to Marlowe's resetting of the same romance. "Compared with the Greek poem, this *Hero and Leander* of Marlowe is like some radiant double-rose, placed side by side with the wild-briar, whence it sprang by cultivation. The petals have been multiplied, the perfume deepened and intensified, the colours varied in their modulations of a single tint. At the same time something in point of simple form has been sacrificed. The first thing, then, that strikes us in turning from Musæus to Marlowe is that what the Greek poet considered all-important in the presentation of his subject has been dropped or negligently handled by the English poet, while the English poet has been prodigal in places where the Greek displayed his parsimony. On looking further, we discover that the modern poet, in all these differences, aims at effects not realized by ancient art. The life and play and actual pulsation of emotion have to be revealed, both as they exist in the subject of their poems, and as the poet finds them in his own soul. Everything that will contribute to this main achievement is welcomed by the poet, and the rest rejected. All the motives which had an external statuesque significance for the Greek, must palpitate with passion for the

English. Those that cannot clothe themselves with the spirit as with a garment are abandoned. He wants to make his readers feel, not see; if they see at all, they must see through their emotion; whereas the emotion of the Greek was stirred in him through sight. We do not get very far into the matter, but we gain something, perhaps, by adding that as sculpture is to painting and music, so is the poetry of Musæus to that of Marlowe. In the former, feeling is subordinate, or, at most, but adequate to form in the latter, *Gefühl ist alles.*"

There can be no doubt that the modern intellect is, as Mr. Symonds above implies, too insensitive a surface for the perfect development of the faint, but exquisite, sun-pictures of these old nature artists; but there can also be no doubt that the special set which classical studies usually receive, strongly withdraws the student from the spirit of his author to mere mechanical "properties." For some time it has been the absurd practice at Universities, to attribute little value to the grace and skill of translation, but immeasurable importance to disputed etymologies, to conjectural readings, and scansional squabbles. The brilliant verbal criticism of Bentley, Dawes, and Porson, set up a school of imitators in Germany and England, and gave a distinct flavour to University culture. Every one admits that our classical texts have been purified, and that metrical forms have been rationalized, but, after all, this is, as Dr. Johnson said of lexicography, mere pioneer's work, no matter how arduous and laborious. If one had it in hand to visit the wondrous scenery of the Yosemite Valley, it would scarcely be considered relevant to his purpose to spend all his life in mastering the different routes originally proposed for the Pacific Railway that is to take him thither; or in committing to memory the inclinations of the different gradients, and the radii of the various curves over which he is to pass. For specific purposes, all of this information is valuable, but it contributes nothing to the main purpose of our tourist's journey: indeed, if a pleasurable tour were burdened with such prelimin-

aries, few of us would ever wander from home. How far verbal criticism, even in the hands of its founder, may withdraw from all poetic appreciation, was well seen in Bentley, who, after his services to Horace, edited *with conjectural emendations*, the text of *Paradise Lost*! And, in our day, we find that our foremost philologist, Max Müller, regards the Greek myths as nothing better than "a disease of language."

Mr. Symonds' *Studies of the Greek Poets* first appeared in England, in 1873, and they were immediately recognized as an exceedingly valuable contribution to the highest department of literary analysis. These volumes should be in the library of every literary student, classical or English. The English rendering of the illustrative passages represent "translation" in its original and true sense: these renderings are done by such hands as Worsley, Goldwin Smith, and Conington—a sufficient stamp of quality.

THE ONE HUNDRED PRIZE QUESTIONS IN CANADIAN HISTORY AND THE ANSWERS. By Henry Miles, Jun., Montreal. Montreal: Dawson Brothers.

THE *Canadian Spectator* last year offered two prizes for the greatest number of correct answers to one hundred questions in Canadian History, which were to be propounded from week to week in its columns. Along with a statement of the conditions to govern the competition, the following announcement was made: "No *catch* questions will be put forth. However simple a question may appear, there will be connected with it some important historical fact." With this flourish of trumpets we were prepared for a list of questions that would include the whole range of Canadian history in its most important aspects. On looking them over in the pamphlet before us, we have been greatly disappointed.

We are puzzled to know what "important historical fact" is connected with such questions as the following which we select from the list at random: "Which is the oldest Protestant Church in Canada?" "Who piloted Sir Guy Carleton in an open boat to

Quebec when Canada was invaded by the Americans, 1775?" "Which are the two oldest buildings in Montreal, and date of erection?" (*sic*). "What was the name given by the French to the River Thames?" "What is the origin of the name Manitoba?" "Who invented *green tints* for bank-notes, and why was that colour used?" "Who was the first settler within the limits of the Town of Sherbrooke," etc. The propounder of these questions had either no proper conception of his duty in directing attention to important events in our history, or he had a very low opinion of the mental calibre of the readers of the *Canadian Spectator*. We look in vain for questions upon the land tenure of Upper and Lower Canada, upon the system of laws that is peculiar to each, upon the results that followed from the British conquest, and from political changes; and upon the effect of the various treaties that bore upon Canadian interests. In truth, many of the questions are utterly unworthy of the excellent answers given to them by Mr. Miles, and although our readers will not be able to make much use of the questions in the school room, they will be assisted in many minor and obscure points by the information contained in the answers.

---

A COMPLETE MANUAL OF SPELLING. By J. B. Morell, LL.D. Toronto: The Canada Publishing Company. Montreal: Dawson Brothers.

THOSE who are familiar with Dr. Morell's English Grammars will find that his admirable qualities as a compiler are well illustrated in the manual before us.

He arranges the spelling exercises on a thoroughly philosophical, and at the same time practical, plan. The various vowel sounds are first dealt with by copious examples, followed by test exercises, then come chapters on diphthongs, these are followed by others on double consonants, silent letters, etc.

So long as our language presents so many anomalies in spelling, such books as this will be necessary to put into the hands of scholars. It becomes an important aim then

to economise their time and labour by classifying similar words as much as possible, so that by comparison as well as by contrast correct spelling may be learned. This Dr. Morell has aimed to do, with a great deal of painstaking, effort, and, we think, with success. As an evidence of the former we may mention that after most of the lists of words he adds some of a peculiar and exceptional type, and each list is followed by a dictation exercise upon the whole of the words in it. He gives a fair list of Latin roots with examples, but a very meagre one of Greek. He does not burden his book with too long a list of difficult words, and is wisely guided in his selection by those used in the Civil Service papers. He might have improved this list by separating the words into syllables, and marking the accent of each word, and the pronunciation of the more difficult ones. While we commend this book to the attention of our readers as one of the best manuals of spelling a large experience has made us familiar with, we must express a decided concurrence with the opinion expressed by the author in his preface, that "Much reading and a good deal of writing, copying, or, better still, writing from dictation, are the true means to enable a person to spell with faultless accuracy."

---

PRACTICAL PENMANSHIP. By W. D. Prior. London: George Routledge & Sons. Toronto: The Canada Publishing Company.

THIS little manual is written by one who has had many years' experience in teaching writing. Every page testifies to this, and although we cannot agree with some of the opinions expressed, we find much in the book that will be of use to the learner as well as to the teacher.

The writer strongly advocates the front position in sitting to write, and fortifies his opinion by shewing the dangers resulting from turning either side to the desk. As the latter are the favourite positions in this country, his remarks are worth reproducing. "Constant pressure of the side against the desk-edge interferes with the action of the diaphragm, and ultimately causes a greater

or less lesion of the pleura. Sitting sideways to writing, likewise—foolishly recommended by some—is really sitting with a more or less twisted spine, protracted continuance in which position naturally disturbs the nervous system, particularly when accompanied with earnest brain-work. Moreover, when so seated, the work is looked at from a false angle of vision, analogous to holding an object askew to examine it.”

In his instructions for holding the pen—which are excellent, he recommends a very simple expedient to preserve the penholder in its proper position with relation to the fore and middle fingers: it is to place an India-rubber band round the three, between the first and second joints. He considers “an angle of from  $48^{\circ}$  to  $52^{\circ}$  sufficient slope for any kind of hand;” but it is interesting to know that in the English civil service

“the angle preferred is that from  $70^{\circ}$  to  $80^{\circ}$ , with very round turns.” In regard to slope, he lays it down as an axiom that “up-strokes and down-strokes ought to slope alike.” It will be interesting to our readers to notice how far the series of head-line copy books they have in use will conform to this. A very simple test he gives is to turn the copy up side down. One of the points in which we think he is in error is as to the direction from which the light should come; he says it should come from the front or from the left hand, we think it should come from the right hand or from the front, so that the shadow should not interfere with the work.

We have said enough to shew that this little book is a thoroughly practical one, and will be useful in the hands of anyone who wishes to acquire the art of writing a good, plain, readable hand.

#### A LETTER FROM A CORRESPONDENT OF THE HAMILTON SPECTATOR ON “THE SCHOOL BOOK QUESTION.”

*To the Editor of the Spectator.*

SIR,—The recent revelations made by Mr. Warwick, the Toronto publisher, furnish any additional proof that even the most dubious might require of the existence, “not only of a ring, but of a ring within a ring.” Let us hope that the day is not far distant when the Minister of Education may be able to exclaim, “One thing I know, whereas I was blind, now I see.” Surely it does not need much penetration to perceive that the Torontonians Board of School Book Compilers in the present, as in the past, merely avail themselves of the “casual advantages” of their official position. There is no real merit in any of their compilations, yet, with brazen effrontery, their only stock in trade, they arrogate to themselves the credit due to the authors whom they mutilate. The time was when the authorized list embraced “Sangster’s Arithmetic,” “Sangster’s Algebra,” “Sangster’s Chemistry,” “Sangster’s Statics,” “Sangster’s Hydrostatics,” etc., etc., and the gifted compiler reaped a

“golden harvest of royalty,” but were he to issue a school-book now, there would be “none so poor to do him reverence.” The beggars at present on horseback are now flooding the market with compilations from “Hamblin Smith’s” mathematical works, and laying French and German authors on factoring under heavy contributions, while Stoddart’s Mental Arithmetic has also been largely pillaged. To these efforts of genius are, of course, attached sequences in the shape of the inevitable keys, the real object being to grab all the “royalty” possible, and as “on horror’s head horrors accumulate,” we have now inflicted on us, “Hughes’ Calisthenics,” “Hughes’ Mistakes in Teaching,” “Hughes’ How to Secure and Retain Attention,” etc., etc., *ad nauseam*, compiled from American professional works. We may yet anticipate “Tilley’s Book-keeping” and “Ross on Dictation.” What have we done to deserve such punishment?

How is it that none of the Central Committee ever discovered their abilities as com-

plers before 1871? Stranger still, that the "Directing Mind" never taught the system which is now his hobby. Perhaps he had not then had access to "Hamblyn Smith's Arithmetic" or gobbled up the works of "the great masters of analysis," which probably formed a prominent feature in the disinterested present of the "Rivington Firm." Is it not singular that men whose official duties should demand the full occupation of their time can find leisure, without neglecting those duties, to manufacture three or four books a year, any one of which, if they really were the authors, would take a longer time to compose? But the authorship nuisance is comparatively trifling to the injury which these theoretical hobby-riders are inflicting on the cause of Education, through the medium of "Entrance, Intermediate, and First and Third Class Examination Questions" prepared exclusively by themselves, the chief papers being framed specially to match the favourite conundrums appearing in the aforesaid publications, thus cunningly enforcing their sale and causing the "royalty" to flow into the exchequer. At the ensuing July examinations we may expect that, as on a former occasion, the Natural Philosophy and Chemistry papers accidentally corresponded with the ground gone over by Kirkland, so the Factoring and Synthetic Division demanded in the forthcoming Algebra papers will, by an equally surprising coincidence, be identical with the contents of the "Hand Book of Algebra" and thereby enforce its sale. The natural result of this vicious "Tammany" arrangement is to be seen in the teaching which now characterizes the majority of our High Schools, and which neither comprehends the theory nor the practice of Mathematics. I have seen pupils stumbling in Symmetrical Factoring who failed in long division. They could prate that if four men could do a piece of work in 8 days, one man would require 4 times as long, because that style of Analysis matched the "Directing Mind's" second-hand hobby,

but they could not tell why in extracting the  $n$ th root of a number they put a dot over the unit figure and over every  $n$ th figure of the series reckoned from it. Cube root they totally failed in, neither could they tell me why they squared the diameter and multiplied it by  $\frac{7854}{10000}$  to find the area of a circle, and so on "ad infinitum." Nor are the teachers who now obtain Second Class Provincial certificates, or even First Class, much better posted (of course there are exceptions). How many of them could tell what ought to be paid for 6 per cent. stock so as to realize  $n$  per cent. How many could tell why the surface of a sphere equals the area of four great circles, or why, to find its volume, the cube of the diameter must be multiplied by  $\frac{5236}{10000}$ ? Do they understand logarithms, the binomial theorem, indeterminate equations, permutations, etc.? No! but they understand analysis and can actually solve sums involving purchasing by the yard or pound and selling at an advance, including the hobby fraud of using a yard stick an inch short, or a pound weight an ounce light, because these are "type questions," pronounced to be the correct thing by the "Directing Mind" and the "vegetators that live in a fool's paradise." Of course in such excellent Collegiate Institutions as those of Hamilton and St. Catharines with a splendid staff of teachers, the instruction no doubt is thorough, and these remarks will not apply to them, but in the case of the majority of our High Schools "cram" is in full blast and will continue so long as the present system prevails, giving un-crupulous book-compilers the exclusive preparation of the examination questions that are framed for special purposes in which "royalty" forms the chief ingredient. Is it possible that the Minister of Education is the only man in Ontario that cannot see the gross improprieties herein pointed out?

Faithfully yours,

INSPECTOR.

## TEACHERS' ASSOCIATIONS.

## FORTHCOMING MEETINGS.

**CIRCULARS** of forthcoming conventions of Teachers in various counties have been courteously sent to us. As the importance of these gatherings and their value to the profession are now being fully recognized throughout the Province, we make the following transcripts from the programmes of proceedings of the meetings to be held next month, so far as we have been notified to date.

**CITY OF KINGSTON**—Meets at Kingston, 7th May. (President—A. P. Knight, M.A.; Secretary—M. Livingstone.) Subjects for discussion:—Education in Canada—J. H. Metcalfe, M.P.P.; Arithmetic—T. H. McGuire; Grammar to Beginners—J. S. Wood; Weekly Reports—W. H. Godwin; Special Methods—W. G. Kidd; English Composition—D. McFarlane; **PUBLIC LECTURE**—S. Woods, M.A.; Object Lessons—W. J. Summerby; — A. B. Nicholson, B.A.; Drawing—A. W. Moore.

**COUNTY OF FRONTENAC**—Meets at Kingston, 13th May. (President—N. F. Dupuis, M.A.; Secretary—J. W. Henstridge.) Subjects:—How to Teach the First Book—Mr. McIntyre; A Sketch of Mr. Alcott's School, Boston—Mr. Bamford; School Hygiene—T. Dupuis, M.D.; Common Improperities of Speech—W. J. Summerby; Cultivation of the Memory—J. H. Metcalfe, M.P.P.; Practical Arithmetic—D. Robb; A Few of the Trials of a Teacher—Mr. Bole; Grammatical Analysis—Mr. Henstridge.

**NORTH HASTINGS**—Meets at Madoc, May 13th. (President—W. Macintosh, I.P.S.; Secretary—George Kirk.) Subjects:—Written Examinations—Mr. Sutherland; Hints to Young Teachers—F. Burrowes, I.P.S.; Geography to Third Classes—Miss McDermid; Geography to Fourth and Fifth Classes—Mr. Kirk; Literature in Public Schools—Mr. Mulloy; History in Public Schools—Prof. Wright; Health in Public Schools—Dr. Dafoe; School Management—Miss Riddell; Method of Teaching Arith-

metic to Third and Fourth Classes—The President; Grammar to Juniors—Miss Hornbrook; Mistakes Made in Teaching Grammar to Seniors—Inspector Johnston; Teachers' Associations—D. I. Johnstone, of Cobourg.

**EAST VICTORIA**—Meets at Bobcaygeon, May 21st. (President—G. A. Irwin; Secretary—J. H. McFaul.) Subjects:—President's Address; Statics—W. E. Tilley; Decimals, with class—S. Armour; English Literature—C. J. Logan; Fractions, with class—H. Hart; Composition—J. Shaw; Recent Changes in School Law—J. H. Knight, I.P.S.; Prosody—J. Shaw.

**COUNTY OF ONTARIO**—Meets at Oshawa, May 21st. (President—Jas. McBrien, P. S. I.; Sec.-Treas.—James Brown.) Subjects:—How to make School Attractive—Miss Henderson; Elementary Grammar—Jno. Langdon; Physical Geography—H. E. Webster; Relation of the State to the School—D. McBride, B.A.; **LECTURE**—On the Chemistry of Artificial Light—T. Kirkland, M.A.; School Holidays and Hours—M. J. Fletcher; Vulgar Fractions—A. G. Henderson; Composition—W. W. Tamblin, M.A.; Quadratic Equations—S. Phillips, B.A.; Heat—Mr. Kirkland.

**COUNTY OF LANARK**—Meets at Almonte, May 21st. (President—H. L. Slack, M.A.; Secretary—H. Beer.) Subjects:—My Method of Teaching Writing—A. Devitt; The Want of Connection in Studies an Evil in Schools—Geo. Berlinguette; The Prize System—W. A. Hanna; Study of History in Public Schools—John McCarter; Grammar and How to Teach it—John Raine; Assignment of Lessons—Ed. Anderson; Reading—J. A. McCabe, M.A.; English Grammar for Senior Classes—P. C. McGregor, B.A.; Examinations—J. P. Anderson; English Literature—F. L. Mitchell, B.A.; Geography—W. P. Robertson; **PUBLIC LECTURE**—On the Cultivation of Taste, particularly among Children—Principal McCabe.

## EDITORIAL NOTES.

## INSPECTORS' CONNECTIONS WITH PUBLISHING HOUSES.

WE have more than once, in the columns of THE MONTHLY, pointed out the grave impropriety of School Inspectors having any alliances with educational book-publishers, and of using their position, either openly or secretly, to further their own interests or those of book houses with which they have connection. That we have had occasion to do so, and that there exists an evil against which it is time loudly to protest, the letter which precedes this, from a correspondent of the *Hamilton Spectator*, will abundantly attest. Though the letter unhappily bears the marks of being inspired, in some degree, by personal animus, yet the matter complained of, it cannot be denied, is a fruitful source of moral mischief. The evil, moreover, is aggravated by a manifest lack of literary fitness and aptitude for the work engaged in by certain Inspectors and the publishing house concerned in their operations. This, it would seem, however, has been no bar to the success of their undertakings, as the books compiled by these Inspectors have found their way into the schools by other permits than the Minister's authorization. Officially, we all understand that the text-books in use in the schools of the Province, are those that have been sanctioned by the Department. Practically, however, they are largely those that have the sole approval of a favoured publishing house in Toronto, in the sale of which two Inspectors, at least, have a substantial interest. What the effect must be, in disregarding the Minister's edict to exclude unauthorized books from the schools, and in suffering Inspectors to promote the sale and derive a profit from their circulation, we need not stop to point out. "Place a man's ear," says the Hon. Robt. Lowe, "within the ring

of pounds, shillings, and pence, and you can tell what his conduct will be." But the effect also upon the Inspectorate cannot but be bad. A correspondent of an English journal, complaining recently of an analogous state of things in the Mother Country, writes thus:—"The insidious and covert book-selling of Inspectors was, some years ago, disapprovingly noticed by the Privy Council on Education. Till the London School Board follow the example, making each Inspector sign a Self-Denying Ordinance, which shall be rigorously enforced to the very letter, they will, and deservedly, be subject to popular accusations of unfair practice, and of favouritism and jobbery in their most insidious and reprehensible form." But we do not need warnings from abroad to acquaint us with the mischievous effect of the connection of educational officials with the book trade. The *Spectator's* correspondent recalls the lively experience we have already had of that. While these alliances are permitted, the temptation to both Inspector and teacher to forget honour in self-interest cannot fail to manifest itself. In the case of one of the Inspectors, indeed, the evil has become well-nigh intolerable. Not only does he work for the adoption by teachers of his own unauthorized manuals, but he uses his influence to secure the *entrée* into the schools of a series of others in which he or his publishers (probably both) have a substantial interest. That at this "trade-touting" he is a success no one needs to express surprise, for he is the "Directing Mind," as it is phrased, of all the sentient educational machinery of the Province, and has been allowed to play upon it as he lists. Moreover, he combines in his own person the comprehensive offices of author, book-cavasser, inspector, and examiner, and arrogates to himself powers corresponding to so full-bodied a unity. Added

to all this, he is possessed by a hobby in the special department he has made his own, and this breaks out in his books, in the papers he sets, and in his inspection, and examining. Against this quadrilateral assault what force, moral or physical, can the teacher interpose and maintain his integrity and his place? This is the question Head Masters are now anxiously asking themselves, and no friend of our educational system, who desires its weal and that of the profession, should let the masters ask in vain. It need only be added that this is neither a professional nor a trade, far less is it a personal, matter. It concerns the whole community, as no school is safe from the inroads of this vicious system which makes teacher and pupil the prey of self-interested Inspectors, who, in concert with intriguing publishers, make the interests of education subservient to that of their pocket. In this matter we cannot think that the Minister of Education is unwilling, as we know that he is not unable, to interfere. In the public interest, in regard to the price of text-books, he has recently interposed between the schools and the publishers. Let him now interpose between the schools and the inspectors. The case against the publishers was trifling compared with that against the Departmental officials, for the publications of the former, being authorized, could be controlled as to their price by the Minister. The Inspectors' works, however, are neither authorized nor are they controlled as to price. If this surreptitious book-trading of the Inspectors is to go on, let it at least be legalized and made subject to Departmental regulations. Only thus will Book-Rings be suppressed, teachers be relieved from immoral coercion, and the Inspectorate be kept free from taint.

#### DEFECTS IN COMPOSITION.

OUR attention has been drawn to some remarks lately made in one of our daily Toronto contemporaries as to the powers of composition displayed by the school teachers of Ontario. According to the editor of this paper, the letters received by him from

school teachers are often deficient in conciseness of matter and clearness of style, besides being open to the charge of displaying egotism. Now, we will not go into the question of the justness of this sweeping charge at present, but we may admit that some defects may not unnaturally be expected in the composition of teachers. Oliver Wendell Holmes has well said that he could imagine a clergyman becoming almost a heathen for want of attention to other than his own spiritual instruction. Similarly we may conceive a master allowing his own standard of style to deteriorate merely for want of contact with his equals and superiors in a literary standpoint. He criticises, but is never reviewed in turn. His word is law, and no doubt is hinted about that word having been badly chosen or incorrectly applied. In this difficult position nothing but practice and an intimate acquaintance with our best English writers can keep him from acquiring a slovenly and slipshod manner of expressing himself. The lack of style is noticeable in many clever and well-read men, in England as well as here. Take for instance Professor Blackie. In one page of a recent article of his in the *Contemporary Review* we notice three blots. He refers to "monstrous and clamant abuses," using a hideous word, and quite unnecessarily while the term "clamorous" remains in use. Still the meaning is plain. Not so when he speaks of "the freedom of testing." This is a crying example of the sin of coining words needlessly. To test has a plain, usual meaning, and a derivative scientific meaning. Why then burden it with a totally different one, and speak of "freedom of testing" when you mean "right of testamentary alienation?" These are verbal blots, but we come next to the misuse of a word that is of a graver nature. He refers to the "epiphany" of a statesman, and we at once feel that the word has been dragged, wrnched, and forcibly dislocated from its proper and usual surroundings, and that its use is utterly incongruous. A fault of an entirely different nature occurs a few pages before. "The Princely house of Torlonia stands wedded to the drainage of

the Lago de Lucino." Here the construction of the sentence makes one laugh both at the author and the princely house he is celebrating. Of course he meant that the fame of that public-spirited family would always be connected with the useful work in question, but unfortunately he did not say so. When we find such errors committed by a man like Professor Blackie, who enjoys all the advantages implied in the fact of his having the *entrée* into the columns of the best reviews of the day, we need not feel surprised that our own teachers in school and college are not always immaculate in their style and diction.

#### UPPER CANADA COLLEGE.

THE proposal made by Mr. Crooks in the Legislature to sanction \$30,000 out of the Endowment Fund of Upper Canada College, for the erection of a new boarding-house in connection with the Institution, raised quite a little breeze in the House. The general feeling among members was that the usefulness of the Institution was gone, its defenders scarcely seeking to shew its necessity on the merits, but claiming sympathy for it on the ground of its being an old and time-honoured Institution. In its day, doubtless, Upper Canada College has done good work. It has turned out many men who have taken prominent positions in the community, and many, among them the Minister of Education himself, who take a pardonable pride in having been an old Upper Canada boy. But, unfortunately, these are not the days of sentiment. Upper Canada has a bright and honourable record, but the development of our Educational System has established in most of our larger cities and towns Collegiate Institutes, which have been and are doing better work than Upper Canada College, in the way of preparing pupils for the Universities. From being the principal feeder of the University, as it was twenty years ago, it has degenerated into a high-toned boarding school, exhibiting nothing very remarkable in its teaching or management. Nor is it fair to our Collegiate Institutes in Toronto

and outside, that an institution of the same grade should be heavily endowed by the Government, and its instructors paid high salaries, when experience has demonstrated that some of the best High Schools exhibit better results. Time was, of course, when Upper Canada needed endowment, but as things now stand, it should be either abolished or more closely affiliated with the University, say rather, absorbed by it. If its endowment and property were used for the purpose of placing the affairs of the University on a proper basis, in which a large expenditure of money must be made shortly, it would be more satisfactory to the country, and further the interests of general and higher education.—*Braunford Expositor.*

#### LITERARY AND PROFESSIONAL JOTTINGS.

WE learn that the Committee of the Council of Public Instruction (P.Q.), at its recent meeting at Quebec, appointed Mr. Mitchell, Rector of the High School of that city, a member of Committee for preparing Examination Papers for Teachers' Certificates for the Quebec Province.

THE English "Educational Year Book," published by Messrs. Cassell, we learn, has this year been enlarged in order to make room for such topics as female education, professional and technical education, etc. Additional matter has also been introduced into those sections which deal with middle-class schools, the universities. local examinations, etc.

THE Warden of the County of Wellington has acted in the interest of the important county whose affairs he presides over, by appointing Mr. Donald McCaig to the Public School Inspectorship, rendered vacant by the resignation of Mr. Somerville. Mr. McCaig is admirably fitted for the position to which he has been appointed, as he has for more than twenty years taken an active, intelligent, and prominent part in Elementary Education, and all that pertains to the welfare of the profession. His extended experience and wide culture render him a particularly desirable acquisition to the Ontario Inspectorate. We wish him all success in his new sphere.

RECENT EDUCATIONAL PUBLICATIONS.

Curtius (Prof. G.) The Greek Verb : its Structure and Development. 18s. *J. Murray*, Publisher, London.

Locke (John). Some Thoughts concerning Education, with Notes by Rev. E. Daniel. 4s. *National Society*, London.

Manuals of the Science and Art of Teaching : How to Teach Physical Geography. 10d. *National Society*.

The Elementary School Manager. By H. R. Rice-Wiggin and A. P. Graves. 5s. *W. Isbister*, London.

Deductions from Euclid and How to Work them. New Edition. 2s. 6d. *J. T. Aumer*, London.

How to Teach Reading. 1s. 6d. *Moffat & Paige*, London.

Natural History Prints. Beautifully printed in colours. (Size 34 x 26 inches.) 2s. each. On rollers, 4s. each. *W. & A. Johnston*, Edinburgh.

Hygiene of the Voice. By G. Durant, M.D. \$1.75. *Cassell, Petter & Galpin*, London & New York.

The Art of Speech : Studies in Poetry and Prose. By L. T. Townsend. 70c. *D. Appleton & Co.*, New York.

The Nineteenth Century : a History. By Robt. Mackenzie (Franklin Square Library). 25c. *Harper Bros.*, New York.

A CORRESPONDENT SENDS US THE FOLLOWING QUESTIONS :—

1. *Whom shall I notify of my intention to write for First Class, Grade C?* ANS. The Public School Inspector of your County, or the Head Master of the High School at which you purpose to write.

2. *When will the examination for First Class begin?* ANS. At same time as the Intermediate examination ; usually the second week of July.

3. *Is a certain percentage in each subject required?* ANS. No.

4. *What percentage on the whole is neces-*

*sary?* ANS. The percentage required has not been made public.

5. *Will the professional examination include Reading, Music and Drill.* ANS. Yes.

6. *A list of the professional subjects will oblige.* ANS. We will endeavour to print the required list next month.

ANOTHER Correspondent, who signs himself "Jonas," of Cookstown, desires the name of a good elementary work on Comparative Philology. The best for his purpose with which we are acquainted is "Families of Speech," by Rev. F. W. Farrar, published by Longmans, Green & Co., London. "Jonas" is in error in supposing that all the Aryan languages have descended from Sanscrit. The fact is, that all the languages of the Aryan family, including Sanscrit, have descended from a primitive Aryan tongue, now lost. The relation of Sanscrit to the other Aryan languages, is that of an elder sister, not that of a parent.

THE next two issues of THE CANADA EDUCATIONAL MONTHLY will appear, as the issues of the same months did last year, in consolidated form—May and June appearing in one issue, to be published on the 1st of June ; and July and August in another, the publication day of the latter being the 1st of August. Subscribers will kindly note the fact. We take the occasion to say that the bound volume of the magazine for 1879 is now to be had in handsome cloth binding, price to current subscribers, \$1.50. Cases for binding the last year's volume, 40 cents. May we hope that our friends, during the approaching midsummer meetings of Teachers' Associations, will do what they can in extending the circulation of the MONTHLY. Clubs of twenty are furnished at \$1 each per year, post paid. Associations subscribing for 100 copies or over will be supplied at the low rate of 80 cents each per annum. Some County Associations have already taken advantage of this special rate ; others might advantageously follow suit.

## SENSATIONAL SCIENCE.

THE rage for knowledge grows apace,  
A pace that quite terrific is ;  
To-day the whole of Britain's race  
Devoutly scientific is.

No more in cloisters science roams,  
No tyrant gives a knock to it ;  
It writes,—we rush to buy its tomes ;  
It lectures, and we flock to it.

For science now our girls and boys  
Their love for thee recant, O mime !  
The clown is shunned for higher joys,  
And Tyndall beats the pantomime.

The " Institution " \* lectures draw  
The babes who once loved merriment ;  
And tiny tots can lisp the law  
That governs each experiment.

Our laughing girls give up their play,  
All bitten by the mania  
To hear what Huxley has to say  
On Patagonian crania.

Ethnology bids croquet stand,  
And cast aside lawn tennis is  
For Evolution's doctrines and  
The charms of Biogenesis.

On Life and Death and Hell (O fie !)  
These famous men enlighten us ;  
They wing their flight so very high  
They positively frighten us.

On all our cherished creeds they fall,  
Without the least apology,  
And hurl the bowl that scatters all  
The ninepins of theology.

We sit enthralled when Huxley shows,  
Or writes about, in articles,  
The stream of life that ebbs and flows  
In protoplasmic particles.

And when the microscope reveals  
What lies in specks gelatinous,  
The timid maiden almost squeals,  
" O dear, to think we've *that* in us ! "

Then Darwin says that our papas  
(Is't science this or lunacy ?)  
Ran up the trees with our mammas  
In man's old world, Baboonacy.

Our girls, from views so wild as these,  
Half angry and half funky rise ;  
To say they come from chimpanzees  
Does make the darlings' monkey rise.

" Art-culture " leads a giddy throng,  
Who ape the strict æsthetical,  
And think the " pretty " must be wrong,  
The " tidy " quite heretical.

The critic's jargon, quickly caught,  
Is lisped by girls at boarding-school ;  
And art's at present largely taught  
According to the " hoarding-school. "

Grim Ruskin frowns and hurls his darts,  
And lifts his voice to lecture all,  
On painting, sculpture, and the arts,  
And topics architectural.

In Ruskin's page all dip awhile,  
For quaint and clever Ruskin is :  
As " pitching in " pervades his style,  
The world of readers thus kin is.

Like Tyndall, Huxley, Darwin, he  
Must now and then his quarrels have ;  
But all of them the great B. P. †  
Encrowned with lavish laurels have.

Explain, O Truth, why men like these  
Are heroes educational !  
Miss Truth replies, " Why, if you please,  
*Because they're so sensational !* "

GEOURGE R. SIMS, from " *Time*. "

\* Referring to the Christmas Lectures to children at the Royal Institution, London, begun by Faraday in 1827, and continued by Tyndall, whose lectures this season were on " Water and Air," and were attended by crowds of little folks.

† British Public.