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THE CANADA  
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DECEMBER, 1881.

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THE DRY BONES OF POPULAR EDUCATION.

BY MARY E. CHRISTIE.

**D**URING the last ten years a great deal of industry has been expended upon the production of books for the instruction of children in elementary schools. And though the results of this industry are of national importance, the work has been hitherto left to private enterprise, and has been carried on as an affair of speculation by book-makers and publishers. The Council of Education has carefully abstained from directing it authoritatively, and has even on occasion gone so far as to caution the inspectors of the schools against interference in the choice of books. A very limited right of rejection is left to them, but they are wholly denied that of selection. The responsibility of choosing the books to be used in any particular school lies with the local board of management, and in many cases it is practically vested in the schoolmaster or schoolmistress. But while the Council of Education

abstains from interference in the choice of books the Education Code prescribes subjects of instruction and lays down in outline the scheme of examination. While the Council refuses the responsibility of providing a set of books out of which it might be possible for the children to learn the things it wishes them to be taught, it throws out, from time to time, hints as to what these books should contain; and such hints are invariably acted upon by the people who make it their business to cater for the schools. In 1876 the Lords of Council especially charged the inspectors to do all they could to promote the teaching of cookery and the establishment of penny savings banks, and to lose no opportunity of pointing out to managers and teachers the advisability of making all the lessons tend as far as possible to the inculcation of habits of thrift and practical industry. The Code had lately sanctioned the

introduction into the school curriculum of special scientific subjects, and these instructions to inspectors breathed throughout a spirit of distrust toward the new subjects, and a desire to counteract their injurious tendencies by reinforcing the practical side of education. The official hint was not lost upon the book-makers. From that time, every new set of Reading Books was crowded with lessons in the domestic and technical arts, with anecdotes having a strong economical bias, and chapters in which story and science were mixed with the usual bad results to both. The Code of 1880 increased the number of optional scientific subjects and recommended that some of them should be taught by means of reading lessons; and a circular addressed to inspectors in the course of the same year shewed that the official attitude toward the scientific subjects had undergone a change. There was no further insistence on the teaching of thrift, or the domestic and technical arts; and indirectly a protest was made against the mixing up of science with moral and literary matter. It was distinctly advised that for every scientific subject taught in the schools, a Reading Book wholly devoted to that subject should be used. This suggestion called the Science Reader into existence. From that time to this, little books treating of history, grammar, geography, astronomy, physiology, and political economy, in a conversational tone, and sometimes in a conversational form, have been continually appearing. Some of these are very nice little books in themselves, but whether they are likely to be of the slightest use for teaching classes of children in national schools is another question. The reports of the school inspectors suggest pretty strongly that they are not. And the testimony of most people who have taught children, as well as that of

most people who remember how they learned in their own childhood, confirms the view of the inspectors. Save under exceptionally favourable circumstances such as are not to be insured in an elementary school for children of the working class, boys and girls under fourteen cannot learn science in any serious sense; and to teach science in any sense that is not serious is pure waste of time and a demoralization of the intelligence of scholar and teacher. Premature acquaintance with words and formulæ which must be understood exactly or else convey no meaning at all, tends to disgust the better minds with branches of knowledge in which most things must appear meaningless, and to foster the tendency of the worst minds to acquiesce in the use of language that does not answer to obvious sense.

But however useless or even mischievous the Science Reader may be, it cannot be more useless, and it will probably be less mischievous, than the chapters on science and thrift and the domestic arts interpolated in the General Reading Books. For the Special Science subjects are optional, and it may therefore be hoped that most of them will not be very widely attempted; while the invention of the Special Science Reader, if it does nothing else, will secure the general Reading Books against any further introduction of pseudo-scientific matter. Among the special subjects recommended by the Code, there are only three which, in the opinion of the present writer, can be taught with profit in elementary schools. These are history, grammar and geography, the last including such elements of astronomy as everybody ought to know, and every child delights in learning. And of these, history is the only one that can be taught satisfactorily in reading lessons. It may be said in passing that of all the special readers that

have so far been produced, those designed for the teaching of history are the best. The idea of teaching grammar philosophically is a very fascinating one, but it breaks down in practice. The moment you go beyond verbal definitions and fixed rules, you find yourself in difficult regions of logic and metaphysics into which an intelligent child here and there will follow you readily enough, but not a whole class in any school. The Reading Book inevitably goes beyond the line of formal statement, and fails to give an explanation that can satisfy intelligent curiosity. The Geography Reader is not of much use either. No child can learn geography by reading about it in class. Names of countries, towns, rivers, etc., must be learned by heart, as they always used to be, and identified on maps and globes; and whatever more children are capable of learning will come best in the way of spoken commentary on the lesson. All of astronomy that it is possible or necessary to teach children can be learned from diagrams and such a rude model of the solar system as any handy boy can make with the help of a turning lathe; and it can be learned in no other way. Children may read about rotation, and revolution, and eclipse, in a dozen little books, but they will never realize what they have read unless they can see the processes going on, and handle something that represents the bodies that revolve and rotate and are eclipsed.

Supposing, then, that all special subjects, except history, grammar and geography (including astronomy), were given up; that history was taught in a set of special Readers, and grammar and geography reduced to strings of questions and answers, which might all go into one Learning Book together, with whatever other miscellaneous facts could be cast into the same form—it remains to be considered

what should be done with the General Reading Book, which till lately was the only book used in the schools. In one or two quarters it has been suggested that since the invention of the Science Reader, the General Reading Book has become unnecessary, and that instead of considering what we shall put into it in future, we had better make up our minds to do without it. In my opinion, to abolish the General Reading Book would be a very unfortunate course. In the rivalry between the General Reading Book and the Special Science Reader we have only another manifestation of the antagonism between literary and scientific culture that divides educational opinion on more imposing platforms. The General Reading Book represents literature, and the Special Reader science. And because I believe children to be capable of a great deal of the culture that comes through literature, and of very little of that which comes through science, I should be extremely sorry to see the book that represents literary culture wholly displaced by a crowd of little books pretending to teach special science to minds incapable of learning it. Unfortunately, however, the General Reading Books now existing represent literature so badly that, except for the purpose of a battle cry, they must rather be said to misrepresent and caricature it, and, by so doing, to render it the worst possible service. In passing this wholesale condemnation upon these books, I am not unmindful of the good intention and careful labour that have gone to compiling them, nor of the many difficulties attending a work of that kind. The General Reading Books used in our elementary schools ought to be an introduction to the whole field of literature. They ought to introduce the scholars gradually to all those great names and great ideas which represent the common stock of

cultivated thought and feeling in the civilized world; and it need hardly be said that the preparation of a set of books which would do this worthily would involve a great deal besides industry and good intention. In such an undertaking a certain amount of scholarship and a great deal more general culture might profitably be put under contribution, besides sympathy with children and practical experience of the drudgery of teaching them. As all these things are not often found together, and as none of them necessarily involves the possession of practical literary talent of the particular kind that appeals successfully to children, it is very probable that a thoroughly good set of Reading Books will never be produced by one person working alone, and without any guarantee that the labour spent on the work will not be wasted. I have already pointed out that, in spite of themselves, a large moral responsibility for the contents of the Reading Books and Readers fastens upon the Council of Education, whose slightest suggestions and most undigested theories are promptly put into practical form by the industrious army of compilers. Already the Council directs in principle, but its direction is rendered valueless by the incompetence of those who obey. Why should it not go further—adopt a scheme and provide for its being carried out?

There are a very large number of these Reading Books in the field. They differ from one another in many respects, but they agree almost without exception in certain important points. Their tone is always one of very inferior culture. They contain too much matter and touch upon too many subjects. And their materials are arranged without due regard to their relative dignity and importance. The greatest names and the smallest are huddled promiscuously together, so that a child might read and re-

member the contents of the whole course, and never realize that there are a few names whose place in art and literature and life is so far above all others that in relation to them any comparison is absurd, and all talk of equality sacrilege. The books that represent literary culture in our national schools could not have been better constructed, if they had been purposely designed to revoke the titles that the tradition of all the past has conferred, and obliterate the distinctions without which admiration runs riot and veneration loses all meaning.

I have by me at this moment a large collection of these sets of books, and could quote scores of passages from all or any of them in justification of what I have said. But to do so would occupy a great deal of space, and the result would be wearisome to readers. I select, therefore, for analysis, the set which is pronounced best by the almost unanimous verdict of the school inspectors, and which I am told is most widely used. This is the series known as "Nelson's Royal Readers."

In a practical matter like this, criticism should be constructive as well as destructive, and I propose, therefore, to append to my analysis of each book suggestions for the making of a better one. I should be sorry, however, to be supposed to advance them with any idea that they are the best in any sense except that of being the best that occur to me. I claim for my plan no higher credit than that of being better than the plan of the books now in use, and, in default of something better still, I offer it for the consideration and criticism of competent persons.

All these books resemble one another in general plan. They are published in sets of six volumes, purporting to be adapted to the progressive intelligence of the standard

divisions of the schools. The first three are generally easy and fairly suited to the tastes of children. They are, however, open to the objection that they can do nothing toward developing any higher tastes in those who read them, and very little in the way of storing the mind with ideas worth retaining through life. And, seeing that no impressions are so vivid or so lasting as those which we receive in the beginning of our education, these are very grave defects. Children ought not to read in school, as a serious lesson, anything that is not worth remembering. They need not read anything in school which is beneath the serious interest of those who teach them, and which may not therefore react beneficially on the teachers at the same time that it maintains the interest of the scholars. Unless this principle be observed in the selection of subject-matter for the lessons, it will be impossible to impart any dignity to the education given in elementary schools, or to secure a high tone in the teachers. I believe that a great deal of the eagerness shewn at this moment by the masters and mistresses for the introduction of the more difficult scientific subjects arises out of weariness of the frivolity and inconsequence of the lessons in the unscientific books, and that a really interesting course of Reading Books would be even more welcome to them than the children.

"Nelson's Royal Reader" for the first standard division contains forty-four lessons, of which eighteen are poetry and twenty-six prose. The prose pieces are simple in style and feeling, and of a nature to interest children mildly; but they are without positive merit of any sort, and might easily be replaced by something better. The poetry is well chosen, and of some of the pieces it may be said that they are all that can be desired. Only, as they are intended to be

learned by heart, it would be better to remove them from the Reading Book to the Learning Book. The principle that the chief business of the Reading Book is to teach children to read, and to care for reading, is now recognized on all hands. It has been announced in official circulars, echoed in the prefaces to the books, and insisted upon by the inspectors in their reports. It only remains to carry it out, and the first step in this direction is to make the Reading Book as much like a book, and as little like an educating machine, as possible. A collection of stories to be read, questions to be answered, and poems to be learned by heart, no more deserves to be called a book than does a volume in which a year's series of a magazine is bound up. Both may contain excellent matter, but they contain it in the form least attractive to readers. I should like, therefore, to see the poetry put into the book from which lessons are to be learned for repetition, and the prose lessons replaced by a selection of *Æsop's Fables* suitably rendered and illustrated. These books are generally illustrated, but the illustrations have the same faults as the text—they are not particularly good in themselves, and they lead to nothing better. It would be a help to future education if all the woodcuts were reproductions of well-known pictures; and this could be managed easily if a corresponding principle were observed in the selection of the subjects of the lessons. The *Fables of Æsop* are among the classical things of knowledge. The ideas embodied in them are part of that common stock of culture which it is desirable to make known to everybody. And they are a part of it which children can understand and enjoy. *Fables* always have delighted children, and there is no reason to fear that they will ever cease to do so. The talking of beasts and birds comes

quite naturally to them, and seems rather more according to the fitness of things than the dumbness of real animals. And the objection to fables, which has lately come into fashion, on the ground that their morality is of a hard and cynical kind, is not of the slightest consequence in relation to children. Children, left to themselves, do not seek a human moral in events. The way of the fable is the way of the universe; the battle is to the strong and the bargain to the cunning. And the point of view of the child, as a perfectly impotent being, is the best possible one for appreciating this. It does appreciate it very keenly, and a large part of its enjoyment of the fable proceeds from its sense of its truth; whereas the moral story, in which the battle is to the good and the bargain to the self-denying, tends to provoke envy and discontent. The idea of developing dangerous analogies between the right in conduct and the fact in Nature is a flight of adult irrationalism that need not be feared from children. It will add to the dignity of this book, and I think also to its charm, if it could bear its proper title of "Æsop's Fables" on the cover, and only have printed on the title-page whatever is necessary to insure its being used in the right division of the school.

In the book for Standard II. we have seventy-two lessons—twenty-one of poetry, and fifty-one of prose. Again I should begin by banishing the poetry to the Learning Book, and I should do the same by three lessons in useful knowledge, which are very wisely cast into the form of catechism and very unwisely crowded into print so small that no child should be set to learn them except as a penance. Of the remaining forty-eight pieces, three, being fables, would already have appeared in substance in the first book. The rest I should turn out to make place for better matter.

Like those in the first book, they are for the most part unobjectionable in themselves. There are, however, a few in which the sentiment and moral are distinctly unwholesome. I will confine myself to one illustration. At page 114 is a story called "His Good Angels; or, the Children's Love;" in which two little girls are described as going out at night to seek their father through the streets of a town and finding him at last drunk in a gin-palace. Having found him, they lead him home with difficulty; and the result of the incident is the reformation of the father by the act and influence of his children. The story is told with detail, and it occupies two pages and a half of the book. Moreover, it is followed up by a set of questions which I transcribe, because it is necessary to the appreciation of the importance of careful selection, that people should realize that the contents of these books are not merely read, but studied and driven home by a system of minute examination. I have sketched the story; these are the questions upon it:

"Why did the little girls go out by night? How did they meet the wind? Why were they not afraid? Where did they stop? What did they do? What did a man say? What did he do? What passed between him and the children? Where was the father? What did he do when he saw Ada and Jane? What did a man say? What did another man call the children? What happened the next night? What did their father say? What had saved their father? What was the result?"

Now, in itself, this system of minute examination in what has been read, is excellent. It is the best means of testing attention and checking inattention. It has also the advantage of bringing out with wholesome force the worthlessness of a good deal of the matter to which it is applied. It is surely not an exaggeration of delicacy to object to a story like this being driven into the minds

of children in whose lives the drunken father and the gin-palace are only too common circumstances. In another story, which we used ail to read a generation ago, about a drunken father and his three sons, the moral was pointed in a different direction and one more consistent with the teaching of a commandment we also learned in those days, and which, as far as I know, has not yet been improved upon. But it is time to pass from criticism to suggestion. This second book would be much more interesting and also more educating, if all its prose chapters, good, bad, and indifferent, were to make way for the familiar fairy stories of Grimm's collection, selections from the Arabian Nights, and a few of the very best of Hans Andersen's tales. Little Red Riding Hood, Cinderella, Beauty and the Beast, Sinbad the Sailor, Ali Baba, and Aladdin, are the heroes and heroines of romance, whom not to know is to be outside the pale of cultivated conversation of the most elementary sort. And yet people can only know them by reading about them; and children whose homes are not cultivated must look to the school for instruction in these classics of the nursery as well as for the graver matter of more advanced education. I should like this volume to be called *Fairy Stories*, and, like its predecessor, to bear all marks of particular destination only in a subordinate way on its title-page.

The Third Standard book contains a hundred and one lessons—twenty-one in poetry and eighty in prose. I have absolutely nothing of a positive nature to urge against any of these; but, for the general reasons I have stated so often, I think they might all be profitably cast out. The same considerations of space which make it impossible to go into detailed criticism of all that is bad, prevent my doing justice in detail to much that is

good. I wish, however, to say distinctly that in this book there is much that is fairly good, though it is of a sort which I do not believe to be of much use for the purpose of class-teaching. There are several chapters about animals and about the climate and customs and productions of foreign countries, which are doubtless very good for children to read if they are interested in such matters. But my experience is that children for the most part care only to hear about such things, either from particular people who have the gift of lively narration, or as bearing upon something that they have themselves seen and known. For the few children who have a real taste for natural history and stories of travel, there are plenty of books which they ought to be able to get from the school lending library and to read at home. The lessons on common things are good again; but again they are given in penitential print, and had better be removed to a book where a little more space could be accorded to them. In place of these hundred and one miscellaneous lessons, I propose that the children in the Third Standard division should use a book into which should be gathered the tales of all those heroes and heroines of the past, whose stories float in the region between fact and legend, besides a great many who belong indisputably to the kingdom of fact, but who, for one reason or another, are more vividly presented in art and literature than in such history as children can read.

It would be rash in the course of an article like this to attempt to give a complete catalogue of the names that should be contained in this gallery of heroes. But for the sake of distinctness it is well to suggest a few, and to say that every suggestion is based upon experience of the attraction for children possessed by the character or the story. The typical

deliverers of mankind should be there—the mythical Prometheus, and Hercules, and Perseus; the philosophers—Socrates, Plato, Aristotle; the founders of the great religions of the world—Zoroaster, Buddha, Mahomet; the patron saints of Christendom—St. George, St. Michael, St. Christopher, St. Nicholas; the great female saints, Catherine, Cecilia, Ursula, Margaret; the fathers of the Christian Church, the founders of the monastic orders. And unless the books of history used in the schools include (as they should do, but as at present they do not) some slight outline of the stories of Greece and Rome, place should be found for a good number of the soldiers and patriots of the ancient world. The names that I have suggested, and many more that I could suggest, will inevitably be met with in later life. They live as the representatives of schools of thought, of religious movements, of inspiring ideals. They have been celebrated in painting and poetry. They are alluded to in daily conversation and in the articles of the magazines and the newspapers, which are the only reading of so large a portion of the community. Not to have distinct conceptions of the persons to whom they belong is not only to lose a great deal of direct enlargement of the intellectual and moral sympathies, but to be unable to use the current coin of intelligent society. I am aware that round many of them, there have unfortunately gathered clouds of doctrinal controversy which have eclipsed for the majority of English men and women the simple human worth of those who bore them; and that, on this account, some will say that it is impossible to tell their stories in a book intended to be used in schools where the teaching must be unsectarian. But this impossibility exists only in the minds of those who have never tried to do the thing. Those who have tried it in good faith,

know the difficulties to be purely theoretical. And in this, as in every other detail of the matter, the testimony of experience is of far more value than the foresight of the most complete theory. This part of my subject is one on which it is difficult to dwell at length without passing from practical criticism and suggestion to considerations of a kind that are usually called sentimental—and this I shrink from doing. The highest moral and spiritual results of education are just those which it is least possible to promise certainly as the consequence of any particular course of training. They are none the less those which every parent and every teacher who is worthy to be entrusted with the direction of a child's intelligence has most at heart, and considers most in the choice of the subjects and characters to be brought under the child's notice. We all admit in general terms that the aspirations and actions of our lives are influenced in some degree by the examples with which our childhood is acquainted, and we all recognize more or less the importance of so arranging the surroundings of the children under our care that their suggestion shall be pure and noble rather than base and foul. To go much further than this in speech or writing on a question of national education is to risk drifting into cant or clap-trap, and to provoke objection on the ground that the moral and spiritual influences of a day school weigh almost as nothing against those of the home and the street, and that in nine cases out of ten the conditions of these children's homes are not such as can help the growth of the good seed sown in the school hours. This is true enough to make it unwise to indulge in any very confident anticipation of great results from the best-directed efforts; the truer it is, however, the more reason is there for insisting that some effort shall be made in the right direction.

But though it is wise to say as little as possible about the direct moral and spiritual good that may come to children from being made early acquainted with types of noble character and examples of devoted action, there is no occasion for diffidence or reserve in speaking of another closely related aspect of the matter. The heroes of the world are also the heroes of the world's literature and art. The names that the child had learned to know in this book, he would meet again and again in all the best books he might open in after life, and he would meet them still among the greatest. The myths and legends he had read in school, he would find represented in every gallery of old pictures he might visit. By having made friends in the course of a year's reading with the most prominent figures in art and literature, he would be secured against the unhappy feeling of strangeness which scares so many from the very threshold of culture. He would feel at home in real books and among real pictures, because the principal subjects of them would be familiar to him. This is not a point of sentiment, but of the most commonplace experience. Every child, and not every child only, but every man and woman, is more easily drawn to read and observe what is already familiar than what is wholly strange. The utterly unknown is easily mistaken for the unknowable, and accidental ignorance for incapacitating stupidity. People, whose early education has been neglected, often spend their lives in turning sulkily away from opportunities of culture which in no circumstances could have profited them during childhood, under an erroneous impression that they ought to have learned everything then, and that not having done so they can learn nothing later; and in no departments of knowledge is this unhappy mistake so common or so unreasonable as in art and literature. But though

grown-up people may deny themselves pleasures that are open to them under an impression that they are not clever enough to enjoy them, children are never troubled by such scruples of false modesty. They are ready enough to claim a share in any enjoyment that comes in their way, and it rests with those who direct their earliest training to put them in the way of the enjoyments that are best. And such a book as this, though it might fail as a means of direct moral culture, could not but serve in some measure as a key to those interests which in after life help indirectly to refine manners and purify sentiment.

The book for the Fourth Standard has 288 pages, into which are crowded, *Outlines of British History from B.C. 55 to A.D. 1703*, five lessons on words, fifty miscellaneous prose lessons, and thirty-four pieces of poetry. The outlines of history are compressed into 45 pages of very small print. The word lessons occupy 14 pages of the same type. Both are fairly good of their sort, though they would be better in another place, and some of the information given in the word lessons is rather undignified. For instance, such a definition as "Burke, to murder and destroy, from Burke, a notorious murderer (1829)," might have been left out with advantage, as the book does not pretend to be a dictionary of universal information. Among the forty miscellaneous lessons it is pleasant to be able to say again that many are good of their kind; but it is also necessary to say that a great many (of some of which I propose to speak in detail later on) are positively bad. Worse, however, than any fault of any particular piece in the book is the principle upon which it is compiled. At this stage of the series, prose extracts from all sorts of writers, dead and living, are introduced, so that in addition to the bewildering variety of subjects that the child has had to cope

with all along, it has now to overcome the difficulties of a great variety of styles. Of course the idea is, that it is desirable to acquaint the scholars with as many writers as possible, and that the best way of doing this is to give them a collection of specimen pages to read and study. But this idea is unfortunately a very unsound one. It is a very doubtful advantage to a child to know a great variety of writers, and it is quite impossible for it to know or understand the style of any one writer, who is worth understanding and knowing, by reading or even learning by heart one or two pages cut out of a work of which the scheme remains unknown. Children, left to themselves, will often wade through the longest and most difficult books, and get both delight and instruction from them; and the thing that first attracts them and afterwards holds them is almost always the same thing that attracts and holds grown-up readers—charm of style. Children are really the only large portion of the reading public for whom style is the supreme thing in a book. They know nothing about it, but they feel it, and they will read on contentedly, though the sense may be almost wholly dark, provided the rhythm of the sentence is sympathetic to them. And again, like grown-up readers, they get to know their author more truly through his style than through his statements. But this is not to be done in the course of one page, or two, or three. One utterance of the spell may be enough to charm, but it must be repeated many times before it can illuminate. And the one utterance may not even charm. The same child who might read the whole of "Paradise Lost" or the "Faery Queene" for its own delight would, as likely as not, be quite indifferent to any particular page of either that its teacher happened to select for it; for no single page can give the whole spirit of the

author, or the whole scheme of the work; and these are the things a child reads for. If he can get hold of them, he will be content not to understand a great deal of detail; if he misses them, he will understand nothing at all, and it will be to no purpose to cram his memory with the finest passages of all the masters of prose and poetry. But bad as is this system of feeding children's minds on scraps, even when care is taken that all the scraps are good in themselves, the evil becomes much greater when many of the scraps are very far from good. It is unprofitable to taste a succession of good styles, but it is positively injurious to study patterns of bad style. And some of the pieces given in these books are patterns of very bad style; while others, without being exactly bad in themselves, are so unsuitable to children that they become bad in relation to the purpose of these books. There is a chapter on "The Hand" and another on "The Eye," which—though they might pass muster in a magazine where they would be lightly read and as lightly forgotten—provoke a great deal of criticism when they appear in a book intended to be studied. They contain no solid matter. What they say would be just as well left unsaid, for any substantial fact or idea which it is capable of conveying, and it has not even the merit of being well said. Still less has it the merit of being said in such a way as to be easily understood by a child.

The chapter on "The Hand" begins thus:—"In many respects the organ of touch, as embodied in the hand, is the most wonderful of the senses. The organs of the other senses are passive; the organ of touch is active. The eye, the ear, and the nostril stand simply open; light, sound, and fragrance enter, and we are compelled to see, to hear, and to smell; but the hand selects what it shall touch, and

touches what it pleases." This sort of thing is carried on through rather more than three pages, in the course of which we have an enumeration of the good things and the bad things the hand of man has done, interspersed with ejaculatory passages like this, "A steam engine is but a larger hand, made to extend its powers by the little hand of man! An electric telegraph is but a long pen for that little hand to write with! All our huge cannon and other weapons of war, with which we so effectually slay our brethren, are only Cain's hand made bigger, and stronger, and bloodier!"

Now of course there is nothing wicked in all this. At most it is twaddle, and twaddle has its uses, and need not be too severely treated while it keeps in its proper place. But a lesson-book is not the proper place for twaddle, any more than a drilling-ground is a proper place for feather beds. A chapter like this about "The Hand" is absolutely useless in substance and extremely inconvenient in style. This last objection may not be apparent on the first glance to any one who is not in the habit of teaching children and does not know how, in writing of this sort (which is mostly verbiage), every word that does not explain itself becomes a stumbling-block. There is no solid thing or idea behind the words, and the teacher is driven to explain one difficult expression by another equally difficult and not really synonymous. Take the first sentence for instance: "*In many respects the organ of touch, as embodied in the hand, is the most wonderful of the senses.*" It is a sentence that no sane person would think of addressing to a child of ten years old; and this of itself should exclude it from a lesson to be read by a class of children all about that age. How will you explain *in many respects*? How *the organ of touch*? How will you distinguish between the hand and the organ-

embodied in it? And when you have surmounted all these difficulties, what new fact or idea will you have put into a child's mind? You will have told it that its hand is more wonderful in some ways than its eye, or its ear, or its nose, and in conveying this very questionable truism you will have inevitably given it several inaccurate definitions of words that need not have been used at all. The lesson on "The Eye" begins in a still more embarrassing way, and leads to issues equally blank. The first sentence is this: "It is one of the prerogatives of man to have eyes," and a number attached to "prerogatives" directs us to a foot note running thus:—

"Prerogative, privilege, *lit.* right of voting before others. [*Lat.* *prærogativus*, asked before others (for a vote or opinion); from *præ*, before; *rogo*, I ask.]"

The note is well enough, but it is very interrupting. On the other hand, *prærogative* is a word that children cannot be expected to know, and it must be explained before the lesson is gone on with. So a conscientious teacher will read the note, and having read it, will, it is to be hoped, explain that also. And this second explanation will necessitate parenthetical lectures on the political institutions of Rome and the relation between the English language and the Latin; in the course of which the children's minds will stray far enough from "The Eye;" and when the incidental lectures are ended, and the wandering thoughts are called back, it will not be much easier than it was before to say what *prærogative* means in its present place; because, as a matter of fact, it is improperly used, and has no right to be there at all. If it was necessary to convey the grain of obvious truth this sentence contains, it could have been done in the three words, "men have eyes." A great deal of time would have been saved, and much weariness to the

scholars and mortification to the teacher.

If these were solitary instances of words wasted over things not worth saying, it would be captious to dwell upon them. But they are not. The last three books are full of matter of this sort. And only those who have gone through the penance of hearing a class of school children read these chapters, can know how tedious and unprofitable the process is. I will give one more example from the fifth book, and pass on. Here is an extract from a chapter called "Living Stoves," which professes to explain the process of animal combustion:—

"Granting that our bodies are veritable stoves, the reader will desire to know where we procure our fuel. Fortunately, our coal and firewood is stored up in a very interesting form. They are laid before us in the shape of bread and butter, puddings and pies; rashers of bacon for the labourer, and haunches of venison or turtle soup for the epicure. Instead of being brought up in scuttles, they are presented in tureens, dishes, or tumblers, or all of them, in pleasant succession. In fact, whenever you send a person an invitation to dinner, you virtually request the honour of his company to take fuel; and when you see him enthusiastically employed on your dainties, you know that he is literally 'shoveling' fuel into his corporeal stove."

I abstain from comment on this passage, preferring to leave the reader to judge for himself whether it is worth while to compel people to send their children to school to read things of this sort. The fifth book contains rather more of the same kind of matter than the fourth, with the addition of one or two new features. It has "rhetorical passages" which have not appeared before, and one of these is Pitt's famous reply to Walpole's taunt about his youth. It has outlines of fourteen lives of great men, which are intended as a foundation for compositions to be written by the scholars. These outlines are extremely bald and dry, and, obviously, as the children have no independent knowledge of

their subjects, they must be filled up with words and phrases meaning nothing at all; for biographical facts cannot be arrived at by efforts of imagination or reflection. Then there are some chapters on Hygiene, from which the parents of the children might possibly derive some benefit, but which the children themselves can only find extremely dull, unless children of the working class are strangely different from children in every other class. No one expects the sons and daughters of gentlemen to know how to diet themselves, and ventilate their rooms, and guard against infection of small-pox and typhoid fever before they are thirteen years old; and it is difficult to see why such knowledge should sit more suitably on the children of workmen. Parents are provided by nature for children of all classes, and it is better that children should trust to even the most imprudent parents in matters of this sort than that they should take the management of them into their own hands. Besides, does anybody suppose that boys or girls will eat stale bread instead of new, because they have read in "Nelson's Royal Readers" that "stale bread digests more easily than new," or will sit still after meals because it is written that "the process of digestion requires rest for the whole body?" Of course everybody knows that they will not. But then why go through the mockery of pretending to think they will, and waste space and time that might be profitably occupied?

The book for the Sixth Standard contains a greater quantity and variety of matter than any of the preceding volumes. To point out every unsuitable item of its contents would be an endless task; but I cannot refrain from pointing out two pieces which appear to me especially out of place: an essay on "Evidences of Design in Creation," and Burke's description of

the French Court on the eve of the Revolution.

All this heterogeneous matter is crowded into a small octavo volume of four hundred pages. And the text is enriched with tables of verbal definitions, explanatory foot-notes, and questions for examination. The foot-notes and the definitions could not well be dispensed with in a book of scraps; but they do not add to the attractiveness of the volume. The lessons on useful knowledge, on punctuation, physical geography, words, and great inventions, are all given in very small type. The biographical appendix contains short notices of one hundred and three different persons who have been mentioned or quoted in the course of the volume. Two examples will serve to shew how far these notices are likely to furnish the children with living conceptions of their subjects.

“Æschylus, the father of the Greek drama, was born at Athens in 525 B.C. He was wounded at Marathon (490 B.C.), and fought at Salamis (480 B.C.). He was the first to introduce on the stage more actors than one, and to give them appropriate dresses. Of ninety dramas produced by him, only seven have come down to us. In 468 B.C. Sophocles defeated him in the public competition of dramas, and he retired to Sicily, where he died in 456 B.C.” It is apparently assumed that everything connected with Sophocles belongs to the class of innate ideas. No note is devoted to him, and though this familiar mention of him suggests that steps have been already taken to make him known, I cannot find any piece throughout the series in which he figures as subject. My other example shall be Shelley:—“Shelley, Percy Bysshe, an eminent English poet, was born in Sussex in 1792. His father was a baronet. His fine poetical genius was marred by his openly flaunted infidelity. His

chief works are—‘Queen Mab,’ ‘Alastor,’ and ‘Prometheus Unbound;’ but he is better known by his minor poems—‘The Skylark,’ ‘The Cloud,’ and ‘The Sensitive Plant.’ He was drowned in the Gulf of Spezzia (Italy) in 1822.”

What profit can there be to any child in reading notices like these of one hundred and three miscellaneous persons, ranging from Plato to Mr. W. H. Russell? The commonest biographical dictionary gives its information in as attractive and impressive a manner. And the commonest dictionary has the merit of being virtually complete; it gives everybody’s name, whereas the biographical appendix gives only those of one hundred and three people whom the chances of selection have brought into the volume. And here is perhaps the best place for saying that no set of General Reading Books can be quite sufficient to itself. It is the attempt to make them so that has brought the existing books to their present state. Every school should have its shelf or shelves of dictionaries and other books useful for reference. It is as important that people should learn to use books as to read them; and this is best learned in childhood by being made to fetch the dictionary from its place and look out the information wanted to throw light on a difficulty, in the moment when the difficulty is encountered. It is never likely to be learned at all where the Reading Book has its hard words and dark allusions explained in notes attached to every chapter. Of course, so long as books are used in which every sentence and almost every word needs explanation, it is necessary that the etymological dictionary, and the biographical dictionary, and the gazetteer, should be included in the Reading Books, as the class would otherwise be continually running backward and forward to the book-shelf. But if, as is much to be

desired, all merely verbal difficulties could be cleared out of the reading lessons, and only those difficulties left which can be solved by looking out the new or forgotten word or name in the proper book, then the occasional acts of reference which interrupted the reading would be extremely beneficial, not only for the sake of the good habit of which they ought to be the beginning, but for the peeps into larger fields of knowledge which would be got in the course of them. And reference should be made from time to time to other books than dictionaries. Every school should have its collection of standard works of real literature, out of which the scholars should be made to read passages bearing upon the lessons in the school books. The same page of Milton or Shakspeare that neither interests nor instructs when it is read in its turn, among scores of miscellaneous extracts from all sorts of authors, may teach much and suggest more, when it is looked up in its own place and read with reference to some passage of history or literature to which it bears a natural relation. In these days of cheap books it is really disgraceful that any school should be without its library of standard books. There is hardly a writer of classical reputation whose works may not be purchased in some edition for a few shillings, so that a very few pounds ought to furnish a shelf that would be fairly representative of English literature. It would be better, however, for the dignity of our national schools, as well as for the indirect education of the children in them, if economy were not allowed to rule exclusively in this matter. A Globe edition of "Shakspeare" is better than none, and very useful in some ways to those who possess another. But a Globe edition can hardly be said to represent adequately the dignity of Shakspeare, or the place in literature cov-

ered by his work. And this is a consideration not without importance in view of the fact that the children of the working class do not grow up among books as children of the upper classes do. They have no good libraries at home. They do not see—and for some purposes of education to see books is as good as to read them—they do not see the best books wearing the most decorous bindings and occupying the best places on the walls of their own homes and those of their neighbours. They do not hear them talked about even in the superficial manner of second-hand literary conversation. They are in the way of knowing nothing whatever of books or authors, except what they learn at school; and this being so, the school should neglect no means of emphasizing the importance of the things that are best to read.

In discussing the last three volumes of the series of Reading Books, I have departed from my plan of placing suggestion side by side with criticism. It was more convenient to criticize the three books in a group, and proceed afterward to suggestion. Hitherto I have recommended that fables and fairy stories, portraits of heroes, and old myths and legends should be used instead of moral stories and chapters about animals and foreign countries. With the fourth year I think a more connected course of reading should begin. I propose, therefore, that the miscellaneous matter of the Fourth and Fifth Reading Books should be replaced by something like a coherent account of ancient and modern literature. I purposely avoid saying a history of literature, because the sort of book that is produced by way of a history of literature for children is the very last thing that I have in my mind. All such books, that I have ever seen, are at once too full and too empty. They contain hosts of names and dates, and

neat phrases of literary criticism, and almost nothing of that which children want to know about books and the authors of books. The book that I am thinking of would be constructed in such a way as to communicate full and living ideas of a few of those greatest names who stand incontestably above the crowd, and fill, however indistinctly, the largest place in universal recognition. The fourth book should contain studies of Homer, Virgil, and Dante. The fifth book should be devoted to English literature; and the representative names would be Chaucer, Spenser, Shakespeare, Milton, Johnson, and Scott. The school year has three terms, and this scheme would give, in the fourth year, one name to each term; in the fifth, two. It is not necessary to give reasons for the selection of the names proposed for the fourth book. They are the inevitable names: they select themselves. Some knowledge of the Homeric poems, of the "Æneid" and the "Divine Comedy" is necessary to the right understanding of the literature of our own country, and happily it is by no means difficult to make the scheme of any of them intelligible to children. Neither will it be necessary to justify most of the names suggested for the English book. I can conceive, however, that the right of Johnson to fill the space between Milton and Scott, might be challenged. I can only say that the ground of selection is the same in this case as in all the others. Between Scott and Milton there is no name in literature that is so much a household word, no figure that is so familiar, as that of Dr. Johnson. He is known without being known, as are only those whom universal suffrage has elected.

It need hardly be said that round these representative names many more would naturally group themselves, so that each section would be a study of

a period as well as a portrait of a man. It is also obvious that no uniform plan of treatment could be followed. All that can be said generally on this point, is that in one and all of these studies the matter should be as substantive as possible. There should be from beginning to end no single phrase of literary criticism. It is as unnecessary and unsuitable to talk to children about style in literature, as about etiquette in social matters, or orthodoxy in religion. All they want to know in regard to a writer is what he wrote about, and what manner of man he was, what was passing in the world at the time when he lived, and what part he took in public life. The quantity of information that it is possible or edifying to give upon these points, varies of course in different cases, and this variation will determine the method of treatment.

I have now suggested substitutes for five of the books that are read during the six school years; and the new course, as I have sketched it, stands thus:—

- Standard I. Æsop's Fables.
- " II. Fairy Tales (from Grimm's collection, the "Arabian Nights," and other sources).
- " III. A Book containing portraits of heroes of real and legendary fame.
- " IV. Studies of Homer, Virgil, and Dante.
- " V. English Literature—
  - Part I. Chaucer, Spenser.
  - " II. Shakespeare, Milton.
  - " III. Johnson, Scott.

In place of the sixth and last book, I am not supposed to suggest any one volume. It is very desirable that no boy or girl should leave school without having read at least one real book through. And I think that in order to secure this, a good number of standard works should be authorized for study during the last term. It would not be wise to leave the choice entirely to the schoolmasters and

schoolmistresses, or even to the managing boards. Neither would it be wise to insist upon some two or three books being read in all the schools to the exclusion of all others. The first course would make it impossible to secure the choice, in every case, of books of which suitable editions existed, and what is even more important, of books which the masters and mistresses had studied thoroughly. The second course would rob the managers of all discretionary power, and prevent the schools from deriving benefit from whatever special taste or knowledge the teachers might possess. The desirable thing seems to me to be that a number of books considerably larger than could be actually read during the year, should be selected; that choice within these limits should be left to the managers of the schools; and that whatever books were officially sanctioned for this purpose should be studied thoroughly by the masters and mistresses in the course of their training. The list should include no books but classics. Among these there should be as much variety as possible, both in kind and in degree of difficulty, so that different courses could be chosen from it, according to the average of intelligence in the schools. For instance, in a school where the standard was high, the course might be: for the first term, a play of Shakspeare—"King John," or "Julius Cæsar;" for the second, the first book of

the "Faery Queene;" for the third, one of the Waverley Nove's—"Ivanhoe" or the "Talisman." The play and poem would of course have to be carefully studied, the novel simply to be read. In a school where the average of intelligence was low, it might be wise not to attempt anything more difficult in poetry than one of Scott's metrical romances, and in prose than "Robinson Crusoe." But these are details which it might perhaps have been wiser to avoid altogether, and which I have certainly no wish to insist upon. My desire throughout has been to suggest that it is not very difficult to devise a course of reading adapted to the understanding of children between the ages of five and thirteen, and at the same time capable of imparting ideas and knowledge worth retaining through life, rather than to prove that there is only one course suitable to this purpose. And I have gone into detail only because there is no other way of shewing that I have considered the matter practically as well as theoretically. It is probable that a great many different courses might be suggested which would serve as well or better than that which I have sketched. But it is not at all probable that a great many good schemes will ever get themselves into practical form, or that even one will do so, so long as the production of these books is left to private enterprise.—*Fortnightly Review*.

DECORATE YOUR SCHOOL-ROOMS.—The school-room is the home of youth, the sanctuary from which he draws inspiration, and the silent educators, embodied in the walls, expressed in the arrangement of the furniture, and whispered by the very air about him, all conspire to mould his character. Floors should be kept scrupulously clean, windows clear of all obstruction, and the walls decorated with appropriate mottoes and pictures.

Interest the pupils in beautifying the school-house and grounds, and make each one to feel that he has an individual interest in keeping them in the best of order. Soon the fruits of such a policy will be manifest in an increased interest in all school work, a laudable pride in the appearance of the premises, and more willing obedience to all just demands. "A thing of beauty is a joy forever." Teachers, try it.

## METRES—ANCIENT AND MODERN.—III.

BY THE REV. CHARLES PELHAM MULVANY, M.A., SCHOLAR TRINITY COLLEGE,  
DUBLIN.

(Continued from page 429.)

NOT to trouble our readers with the antiquarianism of the English Drama, we may state that the ten-syllable blank verse came into use with the Elizabethan dramatists. It was probably derived in a happy hour from Chaucer's ten-syllable heroic line, discarding rhyme except in the close of important scenes, but retaining the freedom of movement in which Chaucer differs so widely from writers of the same metre ever since the time of Dryden and Pope. Chaucer does not confine his sentences to the couplets which rhyme with each other; on the contrary, they flow from one couplet to another with all the ease of movement belonging to blank verse. Thus in the "Prologue"—

There was also a nun a Prioress,  
Who of her smiling was so simple and coy,  
Her greatest oath was but by Saint Eloy.

And again :

She was so charitable and piteous,  
She would weep if that she saw a mouse  
Caught in a trap.

In Chaucer's handling of this metre, in the flexibility of its form, lending itself to every phase of dialogue or narrative, and in the unaffected sweetness and naturalness of the poetry, we find a foreshadowing of what is best in the Elizabethan dramatists. The secret of this metre was revealed to Chaucer; it was hidden from all other writers of verse until the age of Shakespeare, with whom it was lost to English literature, until the great

modern revival of blank verse as a power in English poetry, begun by Wordsworth, Keats, and Shelley.

I trace Shakespeare's use of blank verse to the influence of Chaucer. Even the final rhyme has not altogether disappeared. It is often introduced to point out emphatic sentences, or at the close of a scene or of the drama; for instance :

There never was a story of more woe  
Than this of Juliet and her Romeo—

a couplet which Chaucer might have written and Pope would surely have rejected.

In all probability, from this happy inspiration caught from Chaucer's success with the ten-syllable metre, we owe the use of it by our dramatists. In France the drama cumbered itself with the clumsy ten-syllable Alexandrian, which it adopted from the Greeks and Romans, with what fatal results as to metrical grace the reader can best judge by essaying to get through Mr. Browning's "Fifine at the Fair," the only noteworthy English poem in that measure.

Of Shakespeare's literary supremacy this is not the place to speak; we are concerned to notice one feature only of his multiform genius—his treatment of this particular metre. In his hands it is used with a versatility never reached by any other writer, as an instrument adequately and without effort giving expression to every phase of human life and human passion. Noth-

ing is too low, nothing is too lofty, for its marvellous range of expression, from Billy Bottom to Hamlet, from Doll Tearsheet to Juliet or Desdemona. Its music is always natural, with never a false note or taint of affectation. And then occur—though but rarely, because the exigencies of the drama do not often permit their recurrence—passages of the most exquisite poetry, which in perfection of rhythm, in that rare tact of musical expression which blends thought and words, equal the great modern masters of blank verse, such as Wordsworth, Shelley, and Swinburne. For instance:

Violets dim,  
But sweeter than the lids of Juno's eyes,  
That come before the swallow darts, and take  
The winds of March with beauty.

A new direction was given to blank verse by Milton. The sustained splendour of his style gave a new elevation and dignity to the metre which he chose for his greatest poem. But his style has not the simplicity and sweet sensuousness of Shakespeare. His sentences are very often complicated, the meaning involved, though his magnificent genius is adequate to force the inspiration through all obstacles. But the structure of his blank verse is a bad model for writers of less power. Cowper, for instance, is betrayed frequently, by his admiration for Milton, into an affectation foreign to his own nature.

The chief metrical form of the age of Pope and his school, including Goldsmith, Johnson and Crabbe, was the ten-syllable iambic rhyming couplet. Superficial critics of English poetry are apt to class themselves in schools, to profess dislike to particular poets or their metres. Those who profess to love Wordsworth own to a repugnance for the artificiality and polish of the Popian couplet. But Poetry, like Wisdom, is justified of *all* her children. That true love of poetry which is one of the rarest of intellec-

tual gifts is invariably catholic, and can delight in every phase of poetical form. Pope's use of this metre deserves attentive study for the perfection of its artistic structure. What can be more keen, yet more vigorous, than that rapier thrust at Lord Harvey—

Shall I describe that boy with painted wings,  
That gilded child of dirt, that stinks and stings?

The old eight-syllabled iambic line, which had been degraded by the vile Hudibrastic buffoneries, was ennobled by Scott and Byron, who severally wrote in it most of their best poems. Byron and Shelley reintroduced, in imitation of Spenser, an intricate metre of Italian origin, whose stanza consisted of nine ten-syllable lines, of which the second, fourth, and fifth had the same rhyme. But it is too intricate to be popular. The poets of Byron's age, as a rule, confine themselves to the old metres, the iambic and trochaic. A new metrical departure has been taken by Tennyson, who in many of his most beautiful poems has adopted the rhythm of the anapest, a foot consisting of two short syllables followed by a long, the reverse of the dactyl, and varied at pleasure with an iambic or a spondee. In this metre, for instance, "Maud" is written.

But the greatest revolution in metrical form has been wrought of late years by Algernon Charles Swinburne, a writer who, by those who love poetry for its own sake, apart from the religious or political teaching it embodies, must be owned one of the supreme singers of English lyric verse. The anapest is largely used in his poems, as in the beautiful "Hymn to Proserpine." More than any previous writer he has departed from the old models of metre; his volumes of lyrics abound in ever new combinations, sometimes self-evolved from his own wondrous faculty of perceiving new possibilities of metrical harmony, sometimes adapted from French sources,

or from the seemingly most difficult classical rhythms. As an example of this, I close this paper by explaining the structure of a lyric which, in my poor judgment, is simply the most exquisite ever written in any language. It is in the classical metre called choriambic. The choriambus is a foot of four syllables—a long, two short, and a long. Swinburne's line consists of a spondee, three choriambi, and an iambus. The verses are arranged in couplets which rhyme:

Ah why | Love I was it thus | voices that  
 called | hands that were raised | to wave |  
 So soon, lured thee away, down from the sun,  
 down to the sunless grave ;  
 Ah ! those eyes that were once lustrous with  
 love, filled with the fire of day,  
 Now the shadowy lids cover them close, hush  
 them and hide away,  
 Ah that beautiful hair, hair that was once  
 braided for-me, for me,  
 Now for death is it crowned, only for death,  
 lo-er and lord of thee.  
 \* \* \* \* \*  
 Nay then, sleep if thou wilt, Love is content  
 what should he do to weep,

Sweet was Love to thee once, though to thee  
 now, sweeter than Love is Sleep.

In these brief papers the effort has been made to direct attention to the *form*, as distinguished from the *matter* (to borrow a term from Kant), of English poetry. We have seen that in its earliest and most prevalent rhythm it is *iambic* or *trochaic*, and that these as well as the anapestic and dactylic are of classical origin, and begun, many centuries more than two thousand years ago, with the rude hymns sung round the altars of primitive native deities such as Bacchus. We have seen how they were transmitted to the languages of modern Europe through the Latin hymns of the Middle Ages.

The editor of this magazine has often remarked to the writer on the lamentable inattention to metrical form in poetical contributions otherwise commendable. It is hoped that even the slight sketch here given may do something to lighten one at least among the many editorial *désagrémens*.

## THE EMPLOYMENT OF TEACHERS.\*

BY P. D. GOGG.

THE School Law requires that all agreements between Trustee Corporations and Teachers shall be made in writing, with the corporate seal of the Board attached, and we may add the seal of the teachers as well. Exceptions have been taken to the validity of an agreement where the teacher's seal was inadvertently omitted. It is therefore desirable that these legal forms be strictly complied with, and all doubts removed, so far

as these forms are concerned. Teachers are too often indifferent, and even careless, about these matters, and leave themselves open to petty annoyances from some quibbling member of the Board who is a stickler for forms, and who prides himself upon his ability to detect errors and omissions of this kind. On different occasions our attention has been directed to these points, and it is for this reason we now call attention to them, and advise all parties interested to comply with the form as well as with the spirit of the law. Parents and even trustees are not always willing to state their real objections to a teacher, or to say

\* We give insertion to the following paper, not because we approve of all it contains, but because we think it deals intelligently and ably with a subject that is particularly opportune at the present season, and is one whose importance makes it worthy of serious consideration at any time.—[Ed. C. E. M.]

in what respect he fails in discharging his duty. People of this class are to be found in every section, and are constantly seeking some trifling matter on which to base a complaint or create dissension in the school. They seem to be happy just in proportion to the annoyance they give a teacher, and apparently take delight in ferretting out some trifling irregularity. There are real difficulties enough in the management of a school without adding to them by inadvertence or carelessness in these minor matters of the law. The season for engaging teachers for the ensuing year is upon us, and a little attention bestowed upon these matters will amply repay all parties interested.

In the Compendium of the School Law prepared by the Education Department, a form of agreement is given which, we believe, is in general use; but practical experience has shown that in some respects it is defective and needs amending. The particular points to which we refer are the clauses concerning the vacations, and the notice required to terminate an agreement. There is a difference of opinion in regard to the desirability of having agreements made for a stated period, or to be continuous for an indefinite time upon certain specified conditions. We believe it is the custom in the best schools, both urban and rural, to adopt the continuous plan, the teachers being engaged subject to a certain specified notice to be given of the abrogation of the agreement. This plan has much to commend it, and when once fairly tested will be found to work satisfactorily.

The Legislative and Municipal Grants are apportioned to the various schools in a township upon the basis of average attendance of pupils during a prescribed number of teaching days, which constitute the legal school year. No lost time can be made up by keep-

ing the school open during holidays and vacations, these being for the benefit of the pupils, and not, as some think, wholly in the interests of the teachers. If, then, the legal school year consists of a certain prescribed number of teaching days, we can see no reason why salaries should not be paid according to the number of days that have been taught, instead of including holidays and vacations. A clause in the "Public Schools Act" provides for the payment of teachers for the vacation that immediately follows the close of their period of service. This has been the source of considerable annoyance, as well as the cause of serious differences between Trustees and Teachers. We have it on good authority that cases have occurred where the trustees notified the teacher that his services would be dispensed with at the close of the first half-year, and his successor was engaged to begin after the vacation. In this way six weeks' salary was saved to the section, and the trustees justified their action on the score of economy. Nor have teachers (and we regret to say it) in all cases acted honourably in these matters. Instances have occurred in which teachers have taken advantage of this clause, and received money to which in equity they were not entitled. It is manifestly unfair that the teacher who happens to be employed for the first half-year, as in the case already cited, should receive only half the year's salary, while his successor who teaches the second half, with all the vacations, receives an equal amount. Now, the remedy for all this is simply to strike out the clause, in the form of agreement, that refers to the holidays and vacations, and substitute for it a clause stating that the school year shall consist of the legal number of days for which the Legislative and Municipal Grants are apportioned, and

that the teacher shall be paid his just proportion, irrespective of any holidays or vacations.

Another clause in this form of agreement to which reference has been made is also open to objection. It is the one that contains the notice to be given in order to terminate the agreement. This we believe requires that the notice shall take effect at the close of a calendar month. Now, this seems fair enough on the face of it, but in practice it is liable to abuse. Under this clause either party may notify the other that the contract between them shall cease to be binding at the end of any month, and in this way the school may be broken up in the middle of a term. Trustees, especially in rural schools, have a difficulty in getting a proper supply at such times, and the school suffers to a considerable extent. In the interests of the schools it is therefore advisable that these notices should be given so that the agreement can only be terminated at the end of either term—that is, at the commencement of either the summer or winter vacation.

Why the greatest number of changes in teachers should take place at the commencement of the new year is not very clear, unless we attribute it to the traditional habits and customs of the country. A little thought on the part of those interested will convince the most sceptical that the middle of winter, or the commencement of the civil year, is not the best time to engage teachers. It may be argued that there are more teachers out of employment at that time than any other, and trustees have less trouble in getting a supply. Supposing this to be true, it does not follow that if the time of engagement were changed there would be a scarcity of teachers. The law of supply and demand will soon adjust this matter, and no serious inconvenience will be the result. In the interests of the schools it is sug-

gested that, as far as practicable, all engagements with teachers should be made during the summer vacation, and not at the close of the year, as at present. In support of this view the following reasons may be adduced :

It would offer greater inducements to the larger and more advanced pupils to attend before the winter vacation. Any person who has closely observed the attendance of pupils in any of our rural sections will have noticed, especially if there is to be a change of teachers at the close of the year, that quite a number of those who have been detained at home during the summer season do not attend until after the winter vacation, the reason assigned being that with a change of teachers there would be a change of method, and the short time they would attend before vacation would be of little use to them. This change would in all probability prove beneficial in this respect. The teacher would have ample time to organize the school and classify the pupils properly, before the large attendance in winter would commence. It is universally acknowledged that when a change of teachers takes place, especially at the close of the year, a considerable time elapses before the school can be put into good working order, and the loss of this time is quite a serious drawback to those who can attend only during the winter season. Nor is this the only drawback. The pupils, seeing their time in a certain sense wasted, feel more or less indifferent in regard to their studies, and hence leave school sooner than they otherwise would. This lowers the average attendance, and consequently lessens the amount apportioned from the Legislative and Municipal Grants. The teacher would be able to secure better order and discipline. During the months of August and September, the attendance in our rural schools is usually at its minimum, and composed

chiefly of those belonging to the junior classes, while the larger and more advanced pupils do not begin to attend until later in the season. This being the case, it therefore seems quite evident that the teacher will be more likely to secure good order and proper discipline than if placed in charge of the school when the attendance is at its maximum, and composed of those in the more advanced classes. Perhaps the most difficult period of life in which to enforce proper discipline and a due respect for the rules of the school, is during the transition period from youth to manhood. Too large

to be treated as children, and too young to be treated as men, they tax the resources of the teacher to the utmost to maintain that order and discipline in the school which is essential to its welfare. The changing of teachers during the winter season should be reduced to a minimum. The welfare of our schools demands this, and it seems so evident, that no arguments are necessary to prove the truth of it. We therefore commend this matter to the attention of trustees, and trust that they will give it that consideration which its importance demands.

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

by ANGUS MACMURCHY, U. C.

170. If, in a triangle  $C=60^\circ$ , prove that

$$\frac{1}{a+c} + \frac{1}{b+c} = \frac{3}{a+b+c}.$$

$$\cos C = \frac{1}{2} = \frac{b^2+a^2-c^2}{2ab}, \quad ab = b^2+a^2-c^2,$$

$$\therefore 3ab = (a+b)^2 - c^2 = (a+b+c)(a+b-c).$$

$$\therefore \frac{3}{a+b+c} = \frac{a+b-c}{ab} = \frac{1}{a+c} + \frac{1}{b+c}.$$

171. If  $O$  be the centre of circumscribed circle of a triangle, and  $P$  its orthocentre, and  $R_1, R_2, R_3$  the radii of circles about  $OPA, OPB, OPC$  respectively; shew that  $OP^2 \{ R_1^{-2} + R_2^{-2} + R_3^{-2} \}$

$$= 8 \{ 1 - \cos(A-B) \cos(B-C) \cos(C-A) \}.$$

$$\text{Angle } OAP = B - C,$$

$$\therefore 2R_1 \sin B - C = OP, \text{ whence}$$

$$OP^2 \{ R_1^{-2} + R_2^{-2} + R_3^{-2} \}$$

$$= 4 \{ \sin^2(B-C) + \sin^2(C-A) + \sin^2(A-B) \}.$$

$$= 8 \{ 1 - \cos(A-B) \cos(B-C) \cos(C-A) \}.$$

173. In a plane triangle,  $R, r, r_1, r_2, r_3$  are the radii of the circumscribed, inscribed and three escribed circles; prove that if  $(r_2+r_3-r_1)(r_3+r_1-r_2)(r_1+r_2-r_3)$

$$= -8r_1r_2r_3,$$

then  $r+4R$  will be equal to the perimeter of the triangle.

$$\text{We have } r_2r_3+r_3r_1+r_1r_2=s^2.$$

$$r_1+r_2+r_3=4R+r=2s_1, \text{ say,}$$

then given condition becomes

$$(s_1-r_1)(s_1-r_2)(s_1-r_3) = -r_1r_2r_3,$$

$$\text{or } s_1^3 - 2s_1 \cdot s_1^2 + s_1^2 \cdot s_1 = 0, \quad \therefore s_1 = r.$$

174. If  $p_r$  denote the coefficient of  $x^r$  in the expansion of  $(1+x)^n$ ,  $n$  being a positive integer, prove that

$$(1) p_1 - 2p_2 + \dots + (n-1)(-1)^{n-2} p_{n-1} = 0.$$

$$(2) \frac{1}{2} p_1 - \frac{1}{3} p_2 + \dots$$

$$+ \frac{1}{n+1} (-1)^{n-1} p_n = \frac{n}{n+1}.$$

(3)  $1 \cdot 2 p_1 - 2 \cdot 3 p_2 + \dots$   
 $+ (n-1)(n)(-1)^{n-2} p_{n-1} = 0.$

(4)  $\frac{p_1}{2 \cdot 3} - \frac{p_2}{3 \cdot 4} + \dots$   
 $+ \frac{1}{(n+1)(n+2)} (-1)^{n-1} p_n = \frac{n}{2(n+2)}.$

(1)  $S = n \left\{ 1 - (n-1) + \frac{(n-1)(n-2)}{\left[ \frac{2}{2} \right]} - \&c. \right\}$   
 $= n(1-1)^{n-1} = 0.$

(2)  $(n+1)S = (1-)^{n+1} - 1 + (n+1),$   
 $\therefore S = \frac{n}{n+1}.$

(3) Differentiate  $x(1-x)^n$  twice with respect to  $x$ , and then put  $x=1$ , when  $S=0$ .

(4)  $(n+2)(n+1)S$   
 $= -(1-1)^{n+2} + \left( 1 - (n+2) + \frac{(n+2)(n+1)}{2} \right),$   
 $\therefore S = \frac{n}{2(n+2)}.$

SELECTED PROBLEMS.

208. Prove that, if

$$\frac{ayz}{y^2+z^2} = \frac{bzx}{z^2+x^2} = \frac{cxy}{x^2+y^2} = 1,$$

then  $a^2 + b^2 + c^2 = abc + 4.$

209. Prove that, if

$$a + b + c = 0 \text{ and } x + y + z = 0,$$

$$4(ax + by + cz)^2$$

$$- 3(ax + by + cz)(a^2 + b^2 + c^2)(x^2 + y^2 + z^2)$$

$$- 2(b-c)(c-a)(a-b)(y-z)(z-x)(x-y)$$

$$= 54abcxyz.$$

210. If

$$b^2(x + a^2y) = c^2(x + a^2z) = b^2c^2(y + z),$$

and  $x + b^2y + c^2z = 0$ , then  $a^{\frac{2}{3}} \pm b^{\frac{2}{3}} \pm c^{\frac{2}{3}} = 0.$

211. Solve the equation

$$(x-3)(x-9)(x-11)(x-17)$$

$$= (x-8)(x-14)(x-16)(x-22).$$

212. The area of the parallelogram formed by the tangents at the ends of any pair of diameters of a central conic varies inversely as the area of the parallelogram formed by joining the points of contact.

213. Two tangents are drawn at right angles to an ellipse,  $p$  is the perpendicular from the centre of the ellipse on the chord

of contact, and  $p^1$  is the perpendicular from the intersection of the tangents on the same line; prove that  $\frac{1}{pp^1} = \frac{1}{a^2} + \frac{1}{b^2}$ ,  $a, b$  being the major and minor semi-axes of the ellipse.

214. In any triangle  $A \pm B = \frac{\pi}{2}$ , prove that  $2c \pm 2 = (a+b) \pm 2 + (a-b) \pm 2.$

215. A circular city has  $n$  gates,  $n$  straight streets along radii to these gates, and  $n$  circular streets concentric with its wall, cutting these at right angles. A person starts from the centre along any one of these streets and turns whenever possible, but never inwards towards the centre. The whole number of possible routes by which he may leave the city is  $n2^n$ .

A subscriber asks for a solution of the following:—

(1)  $x^2 + y = 7$                       (2)  $x + y = 9$   
 $y^2 + x = 11.$                        $\sqrt{x} + \sqrt{y} = 3.$

Problems in Arithmetic, by W. S. ELLIS, B.A., Math. Master, Cobourg C. I.

I. Given that gases expand  $\frac{1}{273}$  of their volume at  $0^\circ$  for every degree through which the temperature is raised above that point; find what will be the volume of a quantity of gas at  $50^\circ$ , which at  $0^\circ$  occupies 10 cubic feet. *Ans. 11 $\frac{1}{3}$  $\frac{1}{3}$ .*

II. In the above problem, what would be the volume at  $0^\circ$  if at  $50^\circ$  it occupied 10 cubic feet? *Ans. 8 $\frac{1}{3}$  $\frac{1}{3}$ .*

III. In No. I., what would be its volume at  $100^\circ$  if it measured 10 cubic feet at  $50^\circ$ ; and also what would it measure at  $50^\circ$  if at  $100^\circ$  it filled 10 cubic feet? *Ans. 11 $\frac{1}{3}$  $\frac{1}{3}$  and 8 $\frac{1}{3}$  $\frac{1}{3}$ .*

IV. A grain dealer bought wheat by measure and sold it by weight, thus gaining one bushel on every eight that he bought. If he paid \$1.12 $\frac{1}{2}$  per bushel for it, at what price must he sell so as to gain one-fourth of the cost? *Ans. \$1.25.*

V. A mechanic pays his expenses for a year and saves \$250; had his expenses been

one-third greater, his savings would have been one-half less; find his income and expenses.  
*Ans.* \$625 and \$375.

VI. If the selling price of an article be the cost price increased by one-eighth of itself, what fraction of the selling price is the gain?  
*Ans.*  $\frac{1}{8}$ .

VII. An article costs \$1; at what price must it be sold so as to gain 10 per cent. of the selling price?  
*Ans.* \$1.11 $\frac{1}{9}$ .

VIII. At an election there were two candidates, *A* and *B*. At the close of the poll it was found that *A*'s votes and half of *B*'s were less than *B*'s votes and half of *A*'s by 75; who gained the election, and by what majority?  
*Ans.* *B*, 150.

IX. If 3 oxen eat as much as 5 horses, and 2 horses eat as much as 7 sheep; and if 5 tons of hay will feed 6 oxen, 5 horses, and 56 sheep for 5 weeks, how many sheep must be put in with 7 horses to eat 3 tons of hay in 3 weeks?  
*Ans.* 84.

X. *A* bought 240 barrels of flour from *B*; he kept 25 barrels and sold the rest to *C* at 80 cents per barrel more than he paid for it, thus clearing the price of the 25 barrels he kept and \$19.50 additional. How much per barrel did *A* pay to *B* for the flour?  
*Ans.* \$6.10

XI. An article is marked at 30 per cent. advance on cost; what percentage of this marked price must be thrown off that the gain may be, 1st, 15 per cent. on cost; 2nd, 15 per cent. on the marked price; 3rd, 15 per cent. on the selling price?  
*Ans.* 1st, 11 $\frac{1}{3}$ %; 2nd, 8 $\frac{1}{3}$ %; 3rd, 9 $\frac{1}{3}$ %.

XII. A debt of \$500 has been running for 18 months, bearing interest at 8 per cent. per annum, payable half-yearly; for what sum must a note be drawn, bearing interest at 9 per cent. per annum, and due in 4 months, so that when it is discounted at the bank at 7 $\frac{1}{2}$  per cent. per annum on the day it is made, the proceeds will just pay off the indebtedness? (No days of grace.)  
*Ans.* \$560.

XIII. In the previous problem, find the face value of the note if it had been discounted two months after it was made at

true discount, the other conditions remaining the same.  
*Ans.* \$552.87 $\frac{1}{2}$ .

XIV. There are two notes, the face value of the first being half that of the second; also, the discount on the first for one year is less than the discount on the second for six months by 50 cents, true discount in both cases at 8 per cent. per annum; find the face values of the notes.  
*Ans.* \$157.50 and \$357.

XV. One note is drawn for a certain sum, and will be due in one year; a second is drawn for double that sum, and will be due in six months. It is found that at 8 per cent. per annum the sum of the bank discount of the first and the true discount of the second is greater than the sum of the true discount of the first and the bank discount of the second by \$0.42769; what is the face of each note?  
*Ans.* \$150.119; \$300.238.

XVI. Find the area of the largest right-angled triangle that can be cut out of a semi-circular board 2 feet in diameter?  
*Ans.* 1 square foot.

XVII. Give a statement for the solution of the following:—A town sells debentures, to be paid in 20 years, drawing 5 per cent. per annum interest; how much per hundred dollars should a purchaser pay for them, who desires to make 8 per cent. on his money?  
*Ans.*  $\frac{100(1.05)^{20}}{(1.08)^{20}}$ .

XVIII. Calculate the depth of rainfall from the following data:—A cylindrical gauge 8 inches in diameter catches the rain, which drips through a funnel in the bottom into a glass cylinder 2 inches in diameter; the water in the lower cylinder, when measured, is found to be 2 inches in depth.  
*Ans.*  $\frac{1}{3}$  of an inch.

XIX. A lever 3 feet long is placed over a fulcrum at its centre; on one end is hung an iron ball 4 inches in diameter, and 3 inches from the other end another iron ball 3 inches in diameter; then at the end is suspended a ball of lead just large enough to keep the system at rest; find the diameter of this ball, taking the specific gravity of iron as 7, and that of lead as 11 $\frac{1}{2}$ . *Ans.* 2.94 in.

## SCIENCE DEPARTMENT.

## CHEMICAL PROBLEMS WITH SOLUTIONS,

By GEO. ACHESON, B.A., Science Master,  
Toronto Collegiate Institute.

## II.—PROBLEMS RELATING TO WEIGHT AND SPECIFIC GRAVITY.

6. The specific gravity of lead is 11.5; what is the weight of 10 c.c. of the metal?

*Solution.*—The specific gravity of solids and liquids is always referred to pure distilled water at its maximum density, which is at 4° C. The unit of weight is the weight of a cubic centimetre of water at this temperature, and is called a gramme. The weight of 10 c.c. of water, then, is 10 grammes; and as the specific gravity of lead is 11.5, *i.e.*, lead is 11.5 times heavier than the same bulk of water, therefore the weight of 10 c.c. of lead will be  $10 \times 11.5 = 115$  grammes.

7. The specific gravity of a sample of sulphuric acid was found to be 1.8; how many c.c. would 154 grammes of the liquid occupy?

*Solution.*—1 c.c. of water weighs 1 gramme; 1 c.c. of sulphuric acid weighs 1.8 grammes; therefore 154 grammes will occupy  $\frac{154}{1.8}$  c.c. = 85.55 c.c.

8. The specific gravity of marsh gas ( $\text{CH}_4$ ) referred to hydrogen is 8; what is the weight of 500 c.c. of the gas?

*Solution.*—A litre of hydrogen\* at standard temperature and pressure weighs 0.0896 grammes; 500 c.c. of hydrogen weighs  $\frac{.0896}{2}$  grammes, and marsh gas is 8 times as heavy as hydrogen; therefore 500 c.c. of marsh gas weighs  $\frac{.0896 \times 8}{2} = 0.3584$  grammes.

\* The weight of a litre of hydrogen at standard pressure and temperature has been called by Hoffmann a crith, and is now often used in chemistry as a unit of weight.

9. The specific gravity of oxygen referred to hydrogen is 16, and the specific gravity of hydrochloric acid gas referred to air is 1.27; find the specific gravity of gaseous hydrochloric acid referred to oxygen.

*Solution.*—A litre of dry air weighs 1.293 grammes at standard pressure and temperature; therefore, since a litre of hydrogen weighs 0.0896 grammes, the specific gravity of air referred to hydrogen is  $\frac{1.293}{.0896} = 14.4$ .

The specific gravity, then, of gaseous hydrochloric acid referred to hydrogen will be  $14.4 \times 1.27 = 18.28$ . Oxygen, then, is 16 times as heavy as hydrogen, and hydrochloric acid 18.28 times; therefore hydrochloric acid is  $\frac{18.28}{16}$  times as heavy as oxygen; therefore the specific gravity of hydrochloric acid referred to oxygen is 1.14.

10. A piece of copper weighed in the air 25.35 grammes, and in water 22.47 grammes; what is the specific gravity of copper?

*Solution.*—The loss of weight in water is 25.35 minus 22.47 = 2.88 grammes, which of course is the weight of the water displaced. A certain bulk of copper then weighs 25.35 grammes, and the same bulk of water weighs 2.88; therefore the copper is  $\frac{25.35}{2.88}$  times as heavy as the water, or the specific gravity of copper is 8.8.

11. The weight of 50 c.c. of alcohol was 40 grammes; what was the specific gravity?

*Solution.*—50 c.c. of water weighs 50 grammes, and 50 c.c. of alcohol weighs 40 grammes; therefore alcohol is  $\frac{40}{50}$  times as heavy as water, or the specific gravity of alcohol is 0.8.

12. What is the weight of 100 c.c. of

nitrogen at 15° C. and 770 m.m. barometric pressure?

*Solution.*—First reduce the volume to standard pressure and temperature, thus,

$$\frac{100}{1} \times \frac{273}{288} \times \frac{770}{760}$$

Now, the density of nitrogen referred to hydrogen is 14; therefore, since 1000 c.c. of hydrogen weighs 0.0896 grammes, the above quantity of nitrogen will weigh  $\frac{100 \times 273 \times 770 \times .0896 \times 14}{1000 \times 288 \times 760}$ .

This fraction gives .12047 as the required weight.

13. What is the volume at standard temperature and pressure of 125.44 grammes of carbon monoxide (CO), its specific gravity referred to air being 0.97?

*Solution.*—The weight of a litre of air is 1.293 grammes; the weight of a litre of carbon monoxide will be  $1.293 \times .97$ , and the volume of 125.44 grammes will be

$$\frac{125.44}{1.293 \times .97} = \frac{125.44}{1.254} = 100 \text{ c.c.}$$

14. What would be the ascensional force of 100 litres of marsh gas under normal conditions?

*Solution.*—The ascensional force will be the difference between the weight of the marsh gas and that of the air displaced. The specific gravity of air referred to hydro-

gen is 14.42, while that of marsh gas is 8; therefore 100 litres of air will weigh

$$.0896 \times 14.42 \times 100 = 129.3 \text{ grammes,}$$

and 100 litres of marsh gas will weigh

$$.0896 \times 8 \times 100 = 71.6 \text{ grammes,}$$

and  $129.3 - 71.6 = 57.7 =$  ascensional force in grammes.

The following are proposed for solution:

15.† A certain quantity of carbon dioxide saturated with water vapour was measured in a tube over mercury; calculate its weight from the following data—observed volume of the gas, 105.5 c.c.—Height of mercury in tube above that in trough, 25 m.m.; height of barometer (corrected), 764 m.m.; temperature of room, 14° C.; density of carbon dioxide referred to air, 1.53.

16. In determining the density of vapour of iodine by Dumas' method, the following observations were made:—Capacity of glass globe, 200 c.c.; weight of globe full of air at temperature of 15° C. and pressure of 720 m.m., 45.483 grammes; weight of globe full of vapour, 46.486 grammes; temperature at time of sealing, 180° C.; pressure at time of sealing, 725 m.m. What is the vapour-density of iodine?

† Tables of the tension of water vapour in millimetres of mercury will be found in most text-books on Physics, also in Fownes' "Chemistry."

## TEACHERS' ASSOCIATIONS.

### CHRONICLE OF THE MONTH.

THE SOUTH WELLINGTON AND GUELPH CITY TEACHERS' ASSOCIATION met in the Public School, Fergus, on Thursday, the 17th November, at 10 a.m., Mr. G. W. Field, B.A., President, in the chair. On the meeting being called to order, the President explained that Mr. Ross, M.P., although on the programme, would be unable to attend, owing to other engagements.

Mr. H. Roberts, Secretary, then read the

minutes of the last meeting, which on motion were adopted.

Miss Hoskins not being prepared to deal with the subject of "School Discipline," the President requested Mr. Boyle to address the Association on that topic. He was not in favour of abolishing corporal punishment; would only use it in extreme cases; would appeal to the honour of the pupil. He had adopted the plan of allowing those who had

done the amount of work required to retire earlier than usual, and found it to be better than "keeping in" dilatory pupils after school. A spirited discussion followed, in which, though differing as to the methods of applying punishment, there was unanimity of conviction that corporal punishment is indispensable to school discipline.

Mr. Nairn then introduced the subject of "History in Public Schools," and shewed his method of teaching it by making use of newspapers and stories in connection with text-books. Mr. Young thought that in preparing for Entrance Examinations there was not time for this method, but that the facts and dates had to be "crammed" as fast as possible. Mr. Clark favoured the period, or epoch system.

The first business in the afternoon was a paper on "Mental Arithmetic," by Mr. Moir, of Eramosa, in which he shewed that the subject was greatly undervalued by teachers, and that enough time was not devoted to it. He shewed clearly how to teach the four elementary rules, laying especial stress on not allowing pupils to leave Addition until they could add at sight, and not by the help of the fingers or other devices.

The election of officers then followed, with the following result:—President, James Young, Fergus; Vice-President, Jas. Grant, Oustic; Secretary-Treasurer, David Nairn, Marden. Management Committee—Miss Budd, Miss Mills, Mr. Craig, Guelph; and Messrs. Hyatt and Fenwick, Fergus. Auditors—Messrs. Cook and Jennings.

The surplus funds of the Association were then disposed of by a resolution moved by Inspector Craig, authorizing the Secretary to furnish every member of the Association with a copy of either the *School Journal* or the CANADA EDUCATIONAL MONTHLY, as desired.

In the evening a public meeting was held in the High School, which was addressed by Mr. Field, the retiring President, and Dr. Bryce, of Guelph, who delivered an able lecture on "Some Preventible Diseases, and what we should know of them," bearing

more particularly on sanitary measures in school.

*Friday, 9 a.m.*—The first business was the reading, by Mr. Grant, of a carefully prepared paper by Mr. Luttrell, on the "Superannuation Fund." He compared the men in the profession of teaching to those in the Civil Service, shewing that a position in the latter was more permanent and remunerative. He claimed that teachers should receive the benefits of the fund after teaching twenty-five years. A lively discussion followed, some advocating the entire abolition of the fund, while others favoured the twenty-five years' limit. To bring the discussion to a point the following resolution was moved:—"That all teachers remaining in the profession for twenty-five years shall then be entitled to retire on an annual allowance; and further, that all leaving the profession before serving the twenty-five years shall receive back all money paid into the fund, without interest."—*Carried.*

The subject of "Promotion Examinations" was then discussed, when it was resolved that they be continued in this Riding, and that the Inspector see to the carrying of them out.

Mr. Grant then read a very interesting and thoughtful paper on, "Does the work done in our Schools conduce to popular culture?" The speaker considered the subject a most important one, especially to the teacher. He believed that a moderate amount of well-directed reading would make a fairly cultured person of one who was endowed with common sense and shrewdness, and maintained that it was the teacher's duty to teach the pupils how and what to read. In order to do so, the teacher himself must know books and how to use them. He spent two or three hours a week in hearing recitations, debates, and such like, and found that it was productive of much good to the pupils. The paper was well received, and discussion followed.

After some routine business the Association adjourned, to meet at Guelph at the call of the President.

## PUBLIC SCHOOL DEPARTMENT.

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

## WRITING.

BY J. O. MILLER, MADOC.

OF all the subjects at present taught in our Public Schools, none is of greater importance to those who are to become labourers, artizans, farmers, and merchants, than writing. The man who can write a neat legible hand, is worth a great deal more than he who can only manage to scrawl his name. Yet, strange to say, this subject is perhaps more neglected than any other in the school-room. A great cause of this neglect is the head-line copy-book system. Teachers are apt to place too great faith in the pupil's intelligence in imitating Business College calligraphy, when they are really doing nothing of the kind, after the first line of the copy has been written: hence the poor results. A short inquiry into the principles and methods of teaching penmanship may therefore be acceptable.

Good writing consists of three things: Legibility, Beauty, and Rapidity.

1. *Legibility* is by all means the most important thing to be considered. To insure it we should strive after simplicity of style. Each character should be formed as simply as possible, due regard of course being had to beauty, of which we shall speak further on. Uniformity and the proper proportion of the letters to each other are also of great importance in order to secure legibility. Lastly, the slope of the letters must be taken into account. We think the tendency is to make them too sloping. Vertical characters are decidedly the most legible; but, in writing, something must be sacrificed for the sake of ease and rapidity, and therefore it is best to make them slightly oblique.

2. *Beauty*.—There are many ideas of beauty in writing. The three principal

styles at present in use are the angular, the circular, and the elliptical. And before speaking of beauty it would be well to remember that we are looking at the subject from the Common School standpoint, and not from that of a Commercial College. For this reason we wish to evolve a plain, practical system of penmanship, likely to be the most useful to those whose hands will become too stiff and hard for the refined and delicate hair-strokes now advocated by our leading calligraphers.

Of the three styles mentioned, the angular seems to be the least adapted for ordinary school purposes. Its angularities are popular with none but ladies, who appear to adopt it exclusively. It is neither legible nor beautiful; in fact, its only title to consideration is the rapidity with which it can be written. The style of the head-lines in Beatty's copy-books appears to us to be neither angular, circular, nor elliptical. It is rather half angular and half elliptical. We do not deny that it is a neat and even beautiful style, but we think it too intricate for common school purposes. It is evidently designed to be taught upon the analytical or synthetic principle, of which Currie very aptly says:—"The phonic method of reading and Mulhauser's (synthetic) method of writing embody the same principle, and stand or fall together. The same principle of method which is good against the former is good against the latter. The synthetic principle, if logically and fully carried out, as it is in both of these methods, just means that theory is to precede practice in elementary education—a doctrine which will not now be maintained by any." There is another objection. As we have lately seen the method expounded by a prominent teacher of it, it consists of a few principles,

as /, (, ). Now, before a pupil could make the letter *i*, he would have to practise on the oblique line / and the curve ). This is all very well with advanced classes, but we commence teaching writing to very small children, and even granting the principle to be right, the practice would be too mechanical and wearisome.

Much may be said in favour of the old circular style. Its best recommendation is legibility; but it is old-fashioned and not very beautiful. The elliptical style is, *par excellence*, the best for common school, and perhaps for all purposes. It combines legibility and symmetry, neatness and rapidity. The letters are simpler, better proportioned, and more uniform than in any other style. We are of opinion that the down-strokes of the small letters should be shaded, and for the simple reason that it is natural to the hand to lean more heavily on the pen when descending than when ascending. If the pupil is forced to bring the pen down as lightly as in making the up-stroke, he has not that command of the pen necessary to firm, bold writing; the muscles soon tire from the extra strain, and the copy is badly written.

3. *Rapidity*.—When at the writing lesson, the pupil should write no faster than is necessary for him to form the letters without a shaking of the hand. No difficulty will be experienced in the slowness of the writing; the great danger is that he will write too fast. That is certainly to be guarded against. Until the pupil's hand is formed, he should never be required to write so fast as to force him to become careless in the formation of the letters. So much for principles; let us now consider their application.

There seems to be a difference of opinion as to the proper time to commence the teaching of writing. The majority of teachers in this Province do not begin until the pupil enters the Second Part of the First Book. Others advocate commencing when the pupils first come to school. There is certainly more reason in the latter method, though it is open to the following objections:—I. The printed characters are more readily learned by the pupil. They are disconnected,

and may therefore be formed into small words much more easily than script letters. Besides this, they do not require such an exertion of the muscles in their formation, as each letter is made separately. 2. Printed letters are straight, and more legible than script, and therefore catch the eye and fasten themselves more readily upon the mind than the latter. Considering the fact that the pupils have to become acquainted with the printed letters in some way as soon as they come to school, it is perhaps advisable to teach them first. As soon, however, as they are learned, writing should be taught, and this will be while the pupils are still reading from the tablets.

A good preparatory exercise is teaching the pupils to rule their slates—a plan which is preferable to having lines cut into the slate, because it teaches precision, trains the eye, and occupies the pupil. Slates being ruled for text size, the next step is to teach joining the parallels by an oblique line, from top to bottom, and *vice versa*. Great care should be taken to secure the correct slope, which should be exactly that of the script letters. It is taken for granted that slates are used at first, as small children handle a pencil and slate with much greater ease than paper and ink. The next step is to teach a letter. Those who use the analytical method will object to this, but we believe in presenting something tangible to the child, and not a meaningless curve or straight line. The letter must be taught as a whole. In order to do this we may with profit go back to object teaching. Get some heavy wire and shape it into the following: *v*, *z*, *o*. Take the first one *v*, and let the pupils handle it; then make a copy of it on the board, and let them copy your example; put a dot over it and tell them it is the letter *v*. Point out that it must be sloped like the straight strokes they have been making, and drill on it until it is well made. The next letter will be *z*. Explain that this is the same as the wire hook, with the straight part made longer, and that it extends above the upper horizontal line as far as it does below it; also, that it is crossed instead of dotted. To teach *z*, take the wire hook again and invert it.

Shew the double hook, and how the two combined make *n*; proceed as in the case of *i*, and let the pupils practise. Now form the three letters into the word *tin*; have it copied, correcting very carefully all the errors made. After *n*, *o*, *m* are mastered, teach *o* with the wire as before, and from it *a* (*o* and *i*), and so on. The following appears to be the best order in which to take the letters: *i, t, u, w, n, m, o, a, d, v, j, y, g, q, p, e, c, x, l, b, h, k, r, s, z, f*.

It is important to form small words with the letters as they are learned, for the purpose of practice. Short phrases and sentences are even more interesting to children, and in this way the writing lesson may be made pleasant as well as instructive.

If the pupils have been well taught in the earlier stages, there will be comparatively little difficulty when they come to use pen and paper, which they should do when in Part Second of the First Reader. As to the position at the desk there seems to be a difference of opinion; but this is a matter of minor importance, though we think the front position the most natural and convenient. It is unnecessary for us to give directions for holding the pen here; they are given in all the copy-books. The hand and arm should be so placed as to point the handle of the pen towards the right shoulder. Copy-books should not be used at first. Indeed, we should be glad to see them done away with altogether: but that is impracticable at present. Plain paper, ruled as required, is best for the first lessons. Begin with oblique lines, as in first lessons on the slates; then take the very simple letters, and let the pupils practise writing them until they can manage the pen properly. A good plan is to precede the regular lesson by practice work, in order to bring the muscles of the hand and arm into play. We know of no better way to do this than to practise making the ellipse. This is an excellent exercise for the muscles, and it also teaches the upper and lower curves.

Teachers are sometimes not particular enough about the writing materials. No child can write with a bad pen or bad ink.

The children should be allowed the care of neither copy-books nor pens. The teacher should keep a pen-box, and the pens should be collected after each lesson. With a little management this could be done without any confusion. We think that if the matter were properly represented to trustees, they would supply pens for the school all the year round. This would certainly be the most economical way; and even if the trustees declined to do it, five cents apiece would supply enough pens to last a whole year, whereas a boy will require three or four times that amount if he is allowed to keep his own pens.

In conclusion, we submit that, no matter how good may be his method, a teacher cannot teach writing successfully to young pupils unless he can set them a good example to copy from. Children's retinas are easily impressed when they are young. If they have a good example they will make a good copy with very little instruction; if the example is bad, no amount of instruction will make them write well. The eye must be trained as well as the hand: even more attention should be paid to it at the beginning. Pupils should be imbued with a proper conception of the art. Place before them a good specimen. The hand can never excel the conception of the mind that educates and directs its action. To do this, point out the symmetry of a well-made letter or word. Compare the pupil's copy with your own specimen and criticize; or better, make them criticize their own work. Correct carefully, and make them write the same copy until they can write it well. Remember that in this of all subjects the more haste the worse the writing.

#### THE MODEL SCHOOLS' REGULATIONS.

THE new regulations respecting Model Schools will take effect on the 1st of January, 1882. The changes will, no doubt, tend to increase the efficiency of some of the schools, but the danger is that a large number of trustees will prefer to let the Model Schools go rather than incur the extra ex-

pense necessary to comply with the regulations. There can be no objection to insisting on the qualifications of the head master and those of his assistants who are to mould the character of the teachers-in-training being first-class. To require much work to be done, and allow only a short time to do it in, is unreasonable, and therefore we look with satisfaction on the lengthening of the Sessions from eight weeks to three months. The part of the regulations that will meet with opposition is that which requires one-half of the head master's time to be devoted to the instruction and supervision of the teachers-in-training.

There are really three ways in which the head master's time may be employed in our Model Schools.

The first is for the head master to have no class in the public school, in which case he can devote the whole of his time to the teachers-in-training. The chief objection to this plan is that it is too expensive, as it costs his salary to run the Model School. Besides this, he is not likely to be so much identified with the interests of the school as if he had a class of his own.

The second plan is for the head master to have a division of his own to teach during school hours, and give his lectures to the teachers-in-training before and after hours. This plan has the advantage of being cheaper; but the difficulty is that the head master cannot be with the teachers-in-training when they are learning to teach by practice in the junior divisions.

The third method is for the head master to have an assistant to take charge of his class when he needs to devote some time to his teachers-in-training. This plan has the same objection as the first, since two teachers would have to be employed for one division. Of course the assistant may be employed to fill in his time teaching such subjects as singing, drawing, or penmanship, which some of our teachers are not competent to do; but this is contrary to the spirit of our Public School system, which requires that every teacher shall be qualified to teach every subject which the pupils are required

to learn. It is true the County Boards are authorized to impose a fee of five dollars on each student; but as it would require an attendance of at least sixty students to make up the extra expense of an assistant, it is probable that several of the Model Schools will be discontinued if the regulations are enforced.

Why mental arithmetic, which should be an integral part of the Public and High School course, should have eighteen hours given to it, and school hygiene, which belongs, if any subject does, to the class of subjects a teacher-in-training ought to study, should have only six, is more than we can comprehend. At the late Provincial Convention some of the most intelligent of the Public School men spoke strongly against the retention of mental arithmetic in the curriculum of the young teacher's studies, and they proposed to relegate it to its legitimate place in the Public and High School.

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### THIRD CLASS CERTIFICATES.

THE Board of Examiners for the County of Victoria have passed a resolution not to renew the third class certificates of any teachers who have left the county either for the purpose of teaching or preparing for second class certificates. Although it is considered desirable to stimulate third class teachers to advance to the rank of second class, yet there are two reasons why it is not expedient to refuse to renew third class certificates altogether. In the first place, the supply of second class teachers would be inadequate for the demand. In the second place, experience shews that the training given in our Normal Schools is no guarantee that a second class teacher is any better than a third class. At the same time it is very desirable that the third class certificates should be limited to one county; and if a teacher leaves his county either for the purpose of teaching or attending a High School, should he require a new third class certificate he ought to seek it in his adopted county, and not in the county he left to better his position.

## THE SCHOOL ACTS.

THE Education Department has issued a pamphlet entitled "The School Acts subsequent to those contained in the Compendium of 1878." This will be a great convenience to trustees and others who need to know what the law really is, and find it very difficult to keep track of the never-ending changes. We do not know whether it is intended to supply rural trustees with a copy free of charge. If not, we would suggest that the pamphlet be supplied through the booksellers at a moderate price, as most trustees would rather pay ten cents for a copy of the Act than have to trust to their own or some one else's memory. In glancing over the contents, one cannot fail to observe the enormous length of the paragraphs. Section 3 of the Act of 1880 takes thirty-four lines, the first thirty of which form one sentence. The difference between a number of short sentences and a few long ones is entirely in favour of the short ones. It may take more words to express and more pages to print the short sentences, but they take less time to master, less trouble to explain, and are much simpler to quote.

## QUESTIONS

Given at the Monthly Examination of the Fourth Class in the Senior Division of Ancaster Public School, June, 1881.

ARITHMETIC (W. R. MANNING, TEACHER).

I. How many acres in a rectangular field, half a mile long and  $\frac{1}{2}$  mile wide, and what will it cost at \$65 per acre?

II. How many bushels of wheat would sow the above if 1 lb. sow 40 square yards?

III. How long will it take a man to walk round a square field of 1 acre, 1 rood, 25 square rods, if he walks four miles per hour?

IV. What will it cost to carpet a room 20 feet long and 12 feet wide, with carpet 27 inches wide, at 80 cents per yard?

V. How many times will a carriage wheel, 3 feet 6 inches in diameter, turn round in going  $5\frac{1}{2}$  miles?

VI. Find the value of—

$$.33 + .043\bar{2} + 2.34\bar{5}.$$

VII. A man had \$78.66 in his pocket, and met an equal number of men, women, boys and girls, beggars; to the men he gave 15 cents each, to the women  $\$ \frac{1}{2}$  each, to the girls a dime each, and to the boys 5 cents each, and had \$75.91 left. How many beggars were there?

VIII. Simplify

$$\frac{\frac{2}{3}}{\frac{5}{6}} + \frac{\frac{2}{3}}{2\frac{1}{2} + 1\frac{1}{2}} \times \frac{1}{\frac{1}{10}}, \text{ and } \frac{\frac{1}{1}}{\frac{1}{1} + \frac{1}{3}} \cdot \frac{1}{3 + \frac{1}{4}}.$$

IX. If I pay away  $\frac{1}{3}$  of my money, then  $\frac{1}{2}$  of what remains, then  $\frac{1}{4}$  of what then remains, and have \$7.43 left, how much had I at first?

X. (a)  $72435681 \times 125255$  in 3 lines with proof.

(b) Two billions one hundred and twenty-three millions three thousand and forty-six, subtracted from 202020202020, with proof.

(c)  $\sqrt[3]{259694072}$ .

N.B.—Eight solutions counted a full paper.

## GRAMMAR AND COMPOSITION.

I. His character for simple integrity was so well known, that permission was given without hesitation by the sheriff.

- (a) Analyze. (b) Parse.  
(c) Rewrite and change the voice.

II. (a) Write a Compound Sentence with adversative co-ordination.

(b) Write a Complex Sentence with *noun clause*.

(c) Write a Complex Sentence with *adjective clause*.

(d) Write a Complex Sentence with *adverbial clause*.

(e) Write a Complex Sentence with *noun, adjective, and adverbial clause*.

III. Vary the construction of—

(a) Who can count the sands on the seashore?

(b) What a beautiful day this is!

(c) Thomas is far from being happy.

IV. Write synonyms of: prevent, sanguine

nary, expire, oriental, amicable, external, option, angle, female, maternal.

V. (a) Form adjectives from boy, truth, sufficiency, and oddness.

(b) Form nouns from deep, childish, weak, noisy.

(c) Form verbs from hatred, baptism, established, and dead.

(d) What are the opposites to learning, peaceful, light, and strength?

VI. Write a composition about Ambition, the subject being outlined under the following heads:— Introduction, Definition, Nature, Operation and Effects; Examples; Application.

(To be continued.)

## HIGH SCHOOL DEPARTMENT.

### THE LOCAL PARLIAMENT.

ON educational matters, as, indeed, to do them justice, on most matters, our local members have a good deal to say. Judging from appearances, there are few subjects on which there seems to be a greater chance for forming odd opinions than on school matters. The amount of twaddle got off in the course of a few evenings' debate, on holidays, change of text-books, and the other *grievances* of the Grangers, is enough to make a courageous man tremble for the future of education. The signs of the times, however, now indicate a reaction, and we may expect this Session to hear something on the subject of "Cram." As is well known, a good deal of this is done in our High Schools, but we doubt very much if *Grip's* colossal steed has reached the village and country schools. Country teachers, to our knowledge, still find cosy nooks in *Sleepy Hollow*. It is in city and town schools that the evil runs riot. Our Minister of Education must, therefore, be careful that in avoiding Scylla he do not fall into Charybdis. A wholesome stimulus is needed by all of us. We do not discharge our duty any the less faithfully because we know we have to do it; but a stimulus applied by means of what are really competitive examinations is bad for all concerned. Some other means must be devised. Intellectual growth should be gradual. Hot-bed plants are weak and flabby; so, generally, are hot-bed intellects. If we go on as we High School men are doing, a few

years may see us turning out a large percentage of adult "Tootsies" on infantile "Dombey's." Supporters and opponents of the present Minister of Education, if they know anything about the matter, must know that the task he has now before him is a very difficult one, and if he succeed in meeting the various objections that are now being urged, he will do more than has been done for the last twenty years. All we can expect is the greatest good to the greatest number. Any system must press hard in individual cases; and there is, therefore, the greater reason for adopting the principles we advocated last month—local control of educational matters to a greater extent than at present. Let Trustee Boards and Masters work out themselves the educational problem in their localities. In financial matters the Department should act as Jupiter did in the fable—help those that help themselves. The Upper Canada College question will, no doubt, crop up during the Session. Here again Mr. Crooke will have his hands full. That the feeling in the Province outside of Toronto is against the continued existence of the College, no one can doubt, and that its days are numbered must be evident to every one. We cannot, however, commend the wisdom of the course the *Mail* has lately taken on the question. If the friends of Upper Canada College are wise, they will keep the institution itself and the grievances of its late Principal and its present masters as much in the background as possible. The more the question is discussed, the worse

will it be for the aristocratic preserve. But a serious question has arisen in this connection. In the course of its discussion of the resignation of Principal Cockburn, the *Mail* accuses Mr. Crooks of political favouritism. We hope the Minister will be able to disprove the charge when the House meets. If there is the slightest ground for it, public opinion will soon force a change in the administration of the Department. We can imagine nothing viler—nothing more contemptibly mean—than the use of the official patronage of the Education Department for the support of either political party. With all his faults, no charge of this nature could lie at the door of the late Chief Superintendent; and it behoves Mr. Crooks to give no uncertain sound on so grave a matter. It has also been stated before now, in the public press, that there is a good deal of backstairs influence habitually brought to bear even in the matter of appointing sub-examiners. If the tenth of what is stated by the *Mail* be true, the administration of the Education Department by a political head is a lamentable failure. But *nous verrons*. So far as the College is concerned, its status is now precisely what it was year ago. No one objected to Mr. Cockburn. Indeed, it must be admitted that he possessed some qualifications for the position which it would be difficult to secure in a successor, and that handicapped as he had been for some time, he made a good fight in defence of this peculiar institution. The College, however, still absorbs annually a large sum of money which properly belongs to our Provincial University. It has all along been a huge barnacle on the side of the latter institution, and a standing menace to our High School system; and the friends of good education will rejoice to see restitution made to the proper owner. It would be ungracious, for many reasons, to criticise Mr. Buchan's action in throwing himself into the breach. It is just possible, we may now say, that he will regret the day when, for any reason whatever, he severed his connection with the High School system and accepted a post in an institution which he knows is an anomaly, and

of which, not so long ago, he was a leading opponent. Consistency is a jewel, even in a schoolmaster.

### HIGH SCHOOL ENGLISH LITERATURE.

THE present mode of studying English literature in our High Schools is producing some very queer results. Before beginning the study of special periods in English history, the Department very properly expects the High School pupil to obtain a general notion of the whole subject, so that he may be able to trace the connection of events, and not leave school ignorant of the chief facts in our history. The wisdom of this course is obvious. But what is true of English history is true also of English literature. Before taking up special periods, as he does now for the Intermediate and the University, the High School pupil should acquire some knowledge of the outlines of the growth of our literature. In no way could this be done better than by beginning, as soon as he reaches the highest class in the Public School, a course of reading in the masterpieces of our language. Many pupils—most, indeed—now leave school with very hazy ideas about Shakspeare, Milton, Spenser, Chaucer, and the other great names of our literature. To the large majority of pupils who reach the Intermediate stage, these are names and nothing more. To some they are not even names. Tennyson, Browning, Ruskin, Froude, Shelley, Coleridge, Wordsworth, are unknown to almost all. This is not creditable to Canadian education. "But," says some one, "this is the master's fault." The master, we reply, is, under the operation of the present system, a mere machine. If he try to go out of the beaten path, he will be brought up suddenly by his pupils. They care for nothing but what will get them safely through their examinations. The proper course to take is to have our prescribed text-books so constructed that this difficulty will be overcome. In our opinion the study of special periods should be reserved for Honour work in the Univer-

sities; and no pupil should leave our High Schools at least, in the state of ignorance which is now characteristic of most of the graduates of these institutions. In the projected remodelling of our programmes, let us have more attention paid to literature, and we shall have more "sweetness and light" and less "mathematical Philistinism."

EDUCATION DEPARTMENT,  
ONTARIO.

DECEMBER EXAMINATIONS, 1881.—AD-  
MISSION TO HIGH SCHOOLS.

GEOGRAPHY.

Time—One hour and a half. Value, 8 marks each.

1. What is Political Geography? Physical Geography? Define the following:—First Meridian, Zone, Equinox, Plateau, Watershed, Glacier, Climate.
2. Give the boundaries of the different zones, and the breadth of each zone in degrees. Account for the positions of the bounding lines of the zones.
3. What and where are the following:—Vancouver, Three Rivers, Trinidad, Avon, Corfu, Mersey, Stromboli, Hamburg, Hindoo Koosh, Lyons?
4. Name the bodies of water into which the following rivers flow:—Garonne, Tagus, Elbe, Volga, Oder.
5. Between what cities in the United States and the British Islands is the trade with Canada chiefly carried on? Tell what you know of the commodities exchanged.
6. Over what railroads would you pass in going from (1) Toronto to St. Thomas; (2) Owen Sound to Ottawa? Describe a trip from Montreal to Lake Superior.
7. What information respecting a country can be obtained from a knowledge of its mountains?
8. Name and classify according to slopes the principal rivers of Asia.
9. From what countries do we chiefly obtain the following:—Coal, iron, cotton, rice, sugar, coffee, silk, opium?

COMPOSITION.

Time—One hour and a half.

1. Write a letter to a friend about the Entrance Examination. (Value 24.)
  2. Make the necessary corrections in the following stanza :  
close by the threshold of a door nailed fast  
three kittens set ; each kitten looked agast.  
i, passing swift and inatentive by,  
at the three kittens cast a careless eye.  
(Value 10.)
  3. Correct what is wrong in the following sentences :—  
(1) The merchant has went to Toronto to buy goods.  
(2) The answer that I have got is different to yours.  
(3) This arithmetic contains a great quantity of exercises.  
(4) When the heat of the air is below the freezing point, vapours become frozen and fall to the earth in the form of snow. Rain-drops, frozen in their descent through a cold portion of the atmosphere, forms hail. (Value 10.)
  4. Change the following passages into prose :—  
In rueful gaze  
The cattle stand, and on the scowling heavens  
Cast a deploring eye, by man forsook,  
Who to the crowded cottage hies home fast,  
Or seeks the shelter of the downward cave.  
(Value 15.)
  5. Write the following passage correctly :—  
A bleek march wind blowed southward  
from the sea and the oozy waves of the  
thames roled hoarsly against the chandler's  
little wharf when a gentle hand touched the  
old mans arm. The little red spark in the  
bole of the pipe had flickered up and died  
so he dismounted and takes his childs  
hand when she whispered the word supper.  
(Value 13.)
- ENGLISH GRAMMAR.
- Time—Two hours.
1. Analyze: Vainly did I then wait for the tardy and rebellious villains to come to my assistance, making the welkin ring, and my throat tingle, with reiterated shouts. (Value 6.)

2. Parse: Notwithstanding our enemies' protests, and the fears of a good many others, a ten years' peace was, after some time, agreed upon. (Value 4.)

3. Some words ending in *-ing* are adjectives; others, participles; others, nouns; others, prepositions. Write four sentences, each containing a word in *-ing*, to shew this. (Value 8.)

4. Write the past indicative third singular of 'cast,' 'lay,' 'fetch,' 'set;' and the past participle of 'flow,' 'lead,' 'come,' 'sit,' 'die,' 'swim.' (Value 10.)

5. In what different ways is the Superlative Degree of adjectives formed? Give examples, and state why some adjectives do not admit of a superlative degree. (Value 10.)

6. What is the use of the Relative Pronoun? (Value 2.)

7. Correct errors in the following sentences, giving your reasons:—

- a. There's some people as never shuts the stable door untill the horse is stole.
- b. Will we have a holiday after this examination I wonder.
- c. She is as old as I but I am taller than she.
- d. Every person must bear their own burden. (Value 20.)

#### ARITHMETIC.

Time—Two hours. Value—1-8, eleven marks each; 12 for No. 9.

1. Divide three hundred and fourteen and *one hundred and fifty-nine thousandths* by eight thousand nine hundred and thirty-seven *ten-billionths*. *Ans.* 351526239.220054.

2. Divide the difference of

$$13\frac{1}{2} \div \{2\frac{1}{2} - 2\frac{1}{11}\} \times 1\frac{1}{2} \text{ and}$$

$$\{13\frac{1}{2} \div (2\frac{1}{2} - 2\frac{1}{11})\} \times 1\frac{1}{2}$$

$$\text{by } 13\frac{1}{2} \div 2\frac{1}{2} - 2\frac{1}{11} \times 1\frac{1}{2}.$$

$$\text{Ans. } 1\frac{1}{3}^0, 2\frac{1}{3}^1, 2\frac{1}{3}^2, 2\frac{1}{3}^3 \times 2\frac{1}{3}^4 = 252.$$

3. Find the amount of the following bill in dollars and cents, the shilling being worth 24½ cents:—115 yards Brussels carpet, at 5s. 10d.; 95 yards Dutch stair, at 2s. 7d.; 84 yards Kidderminster, at 3s. 7d.; 72 yards druggat, at 2s. 8d.; 10 dozen stair rods, at 5s. 6d. *Ans.* \$356.30½.

4. Lead weighs 11.4 times as much as

water, and platinum weighs 21 times as much as water. What weight of platinum will be equal in bulk to 56 lbs. lead?

*Ans.* 30.4.

5. Find the difference in cost between 200 feet of chain cable, 76 lbs. to the foot, and 600 feet of wire rope, 18 lbs. to the foot, the chain costing 15s. 6d., and the rope costing 23s. 6d. per cwt. *Ans.* £9 2s.

6. By selling tweed at \$2.60 a yard it was found that  $\frac{1}{8}$  of the cost was gained; what selling price would have gained  $\frac{1}{7}$  of the cost? *Ans.* \$2.72.

7. A plate of copper 5 ft. 6 in. long, 3 ft. wide and  $\frac{3}{4}$  inch thick, is rolled into a sheet 4 ft. 6 in. wide and 6 ft. long. Find its thickness. *Ans.*  $\frac{1}{4}$  inches.

8. How many bricks, 9 in. long, 4½ in. wide and 4 in. thick, will be required for a wall 60 ft. long, 17 ft. high, and 4 ft. thick, allowing that the mortar increases the bulk of each brick one-sixteenth? *Ans.* 40960.

9. A grocer gained 20 per cent. by selling 10 lbs. sugar for a dollar; afterwards he increased his price, giving only 9 lbs. for a dollar. How much per cent. did he make at the increased price? *Ans.* 33½ per cent.

#### DICTIONATION.

Time—Twenty minutes. Value 22—two marks to be deducted for every misspelled word.

Vainly did I wait for the tardy and rebellious villains to come to my assistance, making the welkin ring and my throat tingle with reiterated shouts. Not a soul appeared, and in a few minutes the giraffe, having recovered his wind, being only slightly wounded in the hind quarters, shuffled his long legs, twisted his bushy tail over his back, walked a few paces, then broke into a gallop, and diving into the mazes of the forest, presently disappeared from sight. Disappointed and annoyed at my discomfiture, I returned towards the waggons, and on my way overtook the Hottentots, who were leisurely strolling home with an air of total indifference.

The remarkable properties of the Nile, such as the regularity of its overflow, the fertilizing influence of its inundation, the

sweetness and salubrity of the water, contributed to fix attention upon it in early ages, and to rouse curiosity respecting its origin. The question of its source engaged the schools of philosophers and the councils of sovereigns.

## FOURTH BOOK AND SPELLING.

Time—One hour and a half.

1. Montcalm was first wounded by a musket shot, fighting in the front rank of the French left,—and afterwards by a discharge from the only gun in the possession of the English. He was then on horseback, directing the retreat—nor did he dismount until he had taken every measure to ensure the safety of the remains of his army. Such was the impetuosity with which the Highlanders, supported by the 58th Regiment, pressed the rear of the fugitives—having thrown away their muskets and taking to their broadswords—that had the distance been greater from the field of battle to the walls, the whole French army would inevitably have been destroyed. As it was, the troops of the line had been almost cut to pieces, when their pursuers were forced to retire by the fire from the ramparts. Great numbers were killed in the retreat, which was made obliquely from the River St. Lawrence to the St. Charles. Some severe fighting took place in the field in front of the martello tower, No. 2.—*Fourth Reader, p. 38.*

- a. Who was Montcalm?
- b. What brave deeds had he done before this?
- c. How many years is it since he died?
- d. Explain the meaning of "the French left," "impetuosity," "inevitably," "obliquely," "troops of the line."
- e. What "magnanimous compliment" did Montcalm pay before his death? Why was it magnanimous?

2. Sir Humphrey at once landed, took formal possession of the country in the name of the Queen, amid a salvo of ordnance from the vessels in the anchorage, and gave grants of lands to various persons. Disaffection, unfortunately, broke out among his crew, one half of whom returned to England. With the rest he set out to explore the coast

towards the south. He sailed in his little ten ton cutter, the *Squirrel*; the largest ships, the *Delight* and the *Golden Hind*, following as near the shore as they dared. The summer was spent in examining all the creeks and bays, noting the soundings, taking the bearings of every possible harbour, and carefully surveying the rugged coast, at great risk of destruction. The admiral was satisfied with the appearance of the land. A lump of ore which was picked up was pronounced by the mineral men to be silver, to the delight of the crew.—*Fourth Reader, p. 35.*

- a. What was Sir Humphrey's surname, and what does the "Sir" before "Humphrey" denote?
  - b. What is "the country" and who is "the Queen" referred to?
  - c. Explain the meaning of "a salvo of ordnance," "soundings," "taking the bearings of every possible harbour," "ore," "mineral men."
  - d. Tell the sequel of the voyage.
3. Give an account of the destruction of Pompeii.
4. What are the different meanings of the words "discharge," "gun," "crew," "post," "colours," "lighter."
5. Write the words pronounced like "cession," "sew," "made," "sight," "compliment," "bury," and give their meanings.

## ENGLISH HISTORY.

Time—One hour and a half. Value—12 marks each.

1. Tell what you know about the reign of King John in England.
2. What is a colony? How did England come to have colonies in America? In India?
3. What were the Wars of the Roses? What great changes in England resulted from them?
4. Explain what is meant by "the Commonwealth," and how it came to be established in England.
5. Who was Queen Anne? Who succeeded her, and why?
6. What is meant by "the Whig aristocracy," "the National Debt," "the Reform Bill," "the Crimean War?"

## MODERN LANGUAGES.

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

EDUCATION DEPARTMENT,  
ONTARIO.  
"INTERMEDIATE" EXAMINATIONS, 1881.

FRENCH.\*

I.

*Examiner*—S. A. Marling, M.A.DE BONNECHOSE: *Lazare Hoche*.

Translate :

(a) Déjà toute cette contrée était en armes : elle avait livré ses premiers combats, et les généraux républicains reculaient devant les La Rochejaquelein, les Bonchamp, les d'Elbé, les Lescuré. Hoche reconnut les fautes qu'ils avaient faites : il devina la tactique toute particulière que réclamait la guerre dans ce pays qu'il n'avait jamais vu, mais qu'il étudiait dans les relations militaires et sur la carte. Il démontra la nécessité d'y établir des camps retranchés, d'y former des colonnes mobiles, d'imiter, dans sa manière de combattre, un ennemi presque insaisissable ; et dans le jeune capitaine de vingt-quatre ans s'annonça déjà le général en chef des armées de l'Ouest et de l'Océan.

1. *Contrée*—What is meant, and where is it situated ?

2. *Que réclamait*—Parse *que*.

3. *Toute particulière*—Give the rule for *toute* here.

4. *Colonnes mobiles*—Derive, and explain the meaning.

5. Write short notes on "Les régicides," "La Commune," "Les Girondins."

6. What comparison does this author make between the tactics of Hoche and those of Napoleon ?

7. Give the English of these phrases—"un arrêt de mort," "il fit part au gouvern-

ement de ses appréhensions." "à l'apogée de son puissance," "il fut enlevé à l'amour de ses soldats," "coup d'état de Fructidor."

Translate :

(b) Il était impossible qu'un régime aussi affreux que celui de la Terreur ne provoquât point une violente réaction d'une longue durée, et que les hommes qui l'avaient établi ne fussent bientôt en butte à la haine publique et à l'horreur générale. Cette réaction, commencée le 9 thermidor 1794, continua durant les années suivantes avec une violence toujours croissante, entretenue par une cause dont les historiens n'ont pas tenu suffisamment compte. Le régime de la Terreur était tombé, mais la plupart de ceux qui l'avaient intronisé ne tombèrent pas avec lui : quelques scélérats avaient péri, mais le plus grand nombre des conventionnels qui les avaient soutenus de leurs votes restèrent debout et maîtres de la situation. La Convention survécut une année à Robespierre, et lorsque enfin elle se retira de la scène, elle réussit à vivre de nouveau sous d'autres noms. Elle dit et parvint à faire croire à une foule de républicains ardents et honnêtes, général Hoche entre autres, que la Révolution était incarnée dans les conventionnels, et elle fit violence à l'opinion publique en déclarant, par les décrets de fructidor an III, que les deux tiers de ses membres feraient partie des nouveaux conseils législatifs dont ils formeraient ainsi la majorité.

1. "*La Terreur*"—Explain briefly what is meant.

2. Parse *provoquât, survécut, croissante*.

3. "*Conseils Législatifs*"—What were these called ?

4. *En buttes*. Give other examples of this use of *en* in this work.

5. "*Incarnée dans les conventionnels*." Explain.

\* Translations of and answers to this paper have been courteously sent us by Mr. W. H. Fraser, B.A., U. C. C. These will be found appended.

## ANSWERS

To "Intermediate" French, July Examinations, 1881.

## I.

*Translation.*—Already all that district was in arms; it had fought its first battles, and the republican generals kept retreating before such men as Rochejaquelin, Bonchamp, d'Elbé, and Lescure. Hoche recognized the mistakes which they had made; he forecast the quite peculiar tactics, which the war called for in this country, which he had never seen, but which he studied in military records, and upon the map. He demonstrated the necessity of establishing entrenched camps in it, of forming flying columns there, and of imitating in his manner of fighting an almost unapproachable enemy; and in the young captain of twenty-four years of age was foreshadowed already the commander-in-chief of the armies of the West and of the Ocean.

1. *La Vendée.* It is upon the west coast of France, south of the Loire.

2. *Que* is a relative pronoun; is the direct regimen of *réclamait*; and has for its antecedent *tactique*.

3. *Tout*, adverb, agrees like an adjective in gender and number, when immediately followed by an adjective or participle feminine, beginning with a consonant or *h* aspirate.

4. *Colonnes*, Latin *columna*; *mobiles*, Latin *mobilis*. They preceded the disarming line (*ligne de désarmement*), in order to rid the country of the insurgent armies, for which purpose they were well fitted by their light armour and rapid movements.

5. *Les régicides* were those whose votes had sent Louis XVI. to the scaffold.

*La Commune*, a revolutionary committee organized May 21st, 1791, and which fell with Robespierre July 27th, 1794.

*Les girondins*, members of a moderate republican party, of which the chiefs came mostly from the department of La Gironde—hence its name. Its members played an important part in the Legislative Assembly

and in the Convention. After the September massacres they declared their opposition to La Terreur.

6. In a report drawn up with regard to the war in the north, Hoche reveals as if by instinct the genius of modern military art. The recommendations which he makes are the prelude of the revolution in tactics and strategy brought about later by Napoleon. Like Napoleon, he believed in concentration of his troops, and in fighting the enemy in detail,

7. Death sentence. He imparted his apprehensions to the government. At the height of his power. He was snatched away from the affection of his soldiers. Stroke of state policy (or simply coup *d'état*) of Fructidor (September).

*Translation (b).*—It was impossible that so frightful a government as that of the Terror should not produce a long and violent reaction, and that the men who had established it should not soon be an object of public hatred, and of general horror. This reaction, commenced the 9th Thermidor (Aug.), 1794, continued during the following years with constantly increasing violence, sustained by a cause, which historians have not sufficiently taken into account. The Reign of Terror had fallen, but the most of those who had enthroned it did not fall with it; some wretches (villains) had perished, but the greater number of the members of the National Convention, who had sustained them by their votes, remained standing, and masters of the situation. The Convention survived Robespierre one year, and when at last it retired from the scene, it managed to live anew under different names. It asserted, and succeeded in making a great number of honest and zealous republicans (General Hoche among others) believe, that the Revolution was embodied in the members of the Convention, and it did violence to public opinion in declaring, by the decrees of September, year III., that two-thirds of its members would form part of the new legislative councils, of which they would thus form the majority.

1. Period of the French Revolution, from May 31st, 1793, to the fall of Robespierre, July 27th, 1794. Robespierre, Danton, and Marat were the ruling spirits. Immense numbers of people were slaughtered, many without even a form of trial.

2. *provouâti*, Verb of 1st Conjugation. Parts. provoquer, provoquant, provoqué, je provoque, je provoquai. Subjunctive, imperfect, 3rd sing. Subject régime. *survécût*, Verb of 4th Conj. Irreg. Parts. survivre, survivant, survécu, je survvis, je survécus. Profect. def. tense, 3rd sing. *croissante*, Verb of 4th Conj. Irreg. Parts. *croître, croissant, crâ*, je crois, je crâs. The form here used is the present part. used adjectively. It agrees with *violence*.

3. Le Conseil des Cinq-Cents, and Le Conseil des Anciens.

4. *en récompense* (chap. §III) ; général en chef (chap. III.) ; il agit en maître en homme sûr de lui-même (chap. IV.) ; en signe de (chap. III., pt. II.).

5. The National Convention founded the French Republic, and ruled from Sept., 1792, till Oct., 1795. The expression means that the members of the Convention had been the ruling spirits in the organization of the Republican Government, that in them was embodied the Republican idea, and that the success of the Revolution depended upon them.

W. H. F.

U. C. COLLEGE, TORONTO.

(Completion in our next.)

## CONTEMPORARY LITERATURE.

GAGE & CO.'S PRACTICAL SPELLER, suitable for High and Public Schools : a series of Graded Lessons, containing . . . words of similar pronunciation (*sic*) and different spelling, etc., etc. *Second Edition*. Toronto : W. J. Gage & Co., 1881.

It is said to be the rule with some English critics never to criticize a volume of verse unless it be either very good or very bad. The quality of construableness is generally the test which determines whether the work shall or shall not be noticed. In the main we have unconsciously followed the practice of the reviewers we refer to, in noticing the productions of native publishers in the domain of education. The rule is a good one, as criticism, to justify its function in an era when the public want to be saved from mediocre authorship, is called upon to indicate what is meritorious in current literature and to gibbet what is unredeemably bad. In the matter of Canadian educational book-making, we flatter ourselves, that by pursuing this course, and reviewing only what we have been able honestly to speak well of, and frankly condemning what was worthless, we have done a real service to the profession and

to literature. Of course it is not pleasant to be always censuring, and a right-feeling man will find no felicity in impaling a would-be author on the tenter-hooks of literary criticism. Nevertheless, the critic has a public duty to perform, and if he occasionally makes use of the rod of correction he may possibly impress a sense of the responsibility which our native educational book-makers, especially, assume in entering the lists of authorship. We have previously had to comment adversely upon not a few works issued from the house which is responsible for submitting the book before us to the teaching profession of the country. It would seem that the firm referred to has not fully profited by the criticism we have favoured it with, and hence that our work is not yet wholly done. In addressing ourselves to the task still before us, we doubt not that we shall receive, in our unpleasant duty, the consideration, at least, of all who appreciate our motives.

We have said that the quality of construableness is usually the test of the English critic in determining whether a volume of poetry shall or shall not be noticed. In the

case of a Spelling Book it will be reasonable, in order to determine whether it shall be reviewed or not, to inquire whether its compiler can spell. A cursory examination of "Gage's *Practical Speller*" will quickly satisfy anyone that, on the principle set forth in our opening sentence, the work fully merits notice. It shall have it.

It will be observed that this eminently "Practical Speller" is in its *second* edition; and as there is internal evidence that the work has been submitted to revision, there is the less justification for the retention of errors which disgraced the book in the first place, and which still disgrace and discredit it as a text-book designed for school use. When we state, moreover, that the work has been largely pillaged from American text-books, astonishment at the blunders in the little the compiler had to do will be correspondingly increased. But the moral aspects of the educational book-making of this "Practical Spelling" firm are too uninviting to be here dealt with. We shall therefore not touch the unsavoury subject. The compiler, however, has too much respect for his art to be a mere copyist: in his blunder-building he is intrepidly original. It is true that, in the long and rambling "Preface" to the work, one meets with much that is assuring; and we feel that the man who writes "if possible *never let a pupil see a word wrongly spelled*" must be a safe guide for correctly-spelling youth. But the information, "the old-fashioned spelling book has been discarded," is ominous; though again our prejudice vanishes when we read of pupils "turned loose on society to shock it by their bad spelling." "Guage," "guager," and "rain-guage" (*vide* pp. 86 and 92, 1st edition), it is true, at first discomfited us, but in attributing this originality in spelling to some personal eccentricity in the publisher, we speedily recovered ourselves—only to be bowled over again, however, on stumbling upon "pronunciation" (*sic*) on the title-page. Still nothing daunted, we ventured to explore within—to find *marone* for *maroon*, *salable* for *saleable*, *dynastury* for *dynasty*, *wave* for *waive*, *caption*

for *capture*, with such outrages on the Queen's English as *filoneous*, *Lilly*, *lilliputian*, *raccoon*, *pappoose*, *worshippers*, *smilling*, and other thorough-going attempts to revolutionize or disguise the language. Clearly, we thought, some original and highly unusual merit has here been impressed into service. Of course, talent of this sort, if to be had at all, we felt sure would be engaged on such an enterprise as "Gage's Educational Series." But literary enthusiasm of this type was not going to stop at orthographic disguises. The classification and syllabication of words opened a new field for original authorship. Here would it throw itself! Let us cull a few specimens. Under "Animal Food" (page 15), without a word in explanation of the minuter classifications of the animal kingdom or of the chemistry of dietetics, we find honey, oysters, curd, custard, and sardines, and on the following page, under "Vegetable Food (prepared)," stew, gravy, catch up, and vinegar! This we may call literary *hash*, which, by way of dessert, has the following expository sentences as a syntactical condiment—"Pastry *is* pies, tarts, cake, and the like," and "game is wild *meats for food*." Verily, "base is the slave who expounds!" But all this is nothing to the complete intellectual freedom with which the editor of this precious manual approaches and deals with the subject of syllabication. Here we have him at his best, and who shall say that the flickering lamp of learning shall ever go out while our author holds the torch?

We have hitherto had a vague consciousness that, however far removed from an exact science, there were certain well-defined principles which governed the syllabication of words. How little we knew, or rather, how much we trusted, in this matter, this master-juggler of spelling has enlightened us. Still, we retain a traditional respect for old methods, loyalty to which compels us to demur to the syllabication of the following dissyllables selected at random from the "Practical Speller." We cite the words as they appear in the work:—"ho-ney," "clo-set," "rul-ers," "La-tin," "fact-or," "de-

sert" (under Divisions of Land), "spi-rit," and "re-lic." But throughout the book we find that the same spirit of sciolism has been at work—a spirit which we have no notion will ever be altogether laid by criticism in these columns. Let us, however, give the publisher the benefit of our further critical investigation of his book, that, to quote the preface, he may feel we "leave no enemies in the rear." The following are a few instances of further eccentricity in syllabication:—"ratio," "Austrian," and "granular," are indicated as dissyllables; "victuals" occurs variably as a dissyllable and a trissyllable; "agreeable" and "urbanity" are given as words of three syllables, though "stupidity," in the same group as "urbanity," is correctly represented as of four. Here, of course, *stupidity* being the rule, it was sure to be right. It is impossible to consider these blunders as inadvertencies, even if that were any excuse for such portentous accidents in a work designed for spelling. We have reason rather to think them some of the fruits of immature, callow efforts in authorship, previous specimens of which we have had in abundance from the source from which the present text-book emanates. This view will seem the more tenable when the matter and literary form of the "Preface" is reviewed, and where other original (!) composition occurs, the presumed work of the Canadian editor. Our opinion will also find support in the absurdity of many of the definitions of terms which appear in the book, one instance of which we in passing may cite:—"Finance is the income of a state or ruler." But the incredible wildness and inconsistency of much of the syllabication, which we have not yet exposed, would suggest the theory that some "crank" or possibly a School Inspector had been set the task of compiling the book. Let us instance. Under the classification of "In the Kitchen," the word "basin" occurs, divided thus: "bas-in." At the foot of the same page, the name of this utensil appears in the inventory of "Chamber and Garret" as "ba-sin!" With like inconsistency we have "un-cle" and "unc-le," "ce-le-ry" and

"cel-e-ry," "bo-dice" and "bo-ffice," "leopard" and "leop-ard," "ed-i-tor" and "ed-it-or," "cri-tique" and "crit-ique," "as-pa-ra-gus" and "as-par-a-gus," "govern-ess" and "gov-er-ness," and "pho-tog-ra-pher" and "pho-to-graph-er." On page 67 we find a couple of words alongside each other, syllabated as follows: "cur-a-ble" and "du-ra-ble"! On pages 33 and 44 the word "polish" occurs, in the one case in association with "blacking," and in the other under the classification of "Nationalities." Both are syllabated thus, "pol-ish," though in the latter instance with a big, big "P." Under the classification also of "Nationalities," we have such atrocities as "A-rab-i-an" and "Eu-rop-e-an." In other parts of the book we have "a-ca-de-my," "di-vi-ni-ty," "mil-li-ner," "en-ve-lope," "Prot-es-tant," "pot-ent-ate," with other evidences that the compiler will be no bond-slave of conventional syllabication. But, as if crimes against the purity of the language emboldened the perpetrator to impious excesses, we find him unabashed and unrestrained when he touches sacred things. From this ruthless tinkering and desecration of things secular he proceeds to mangle the Lord's Prayer, and to make a hash of the Decalogue. In the former, on page 100, we have the execrable so-called purism of "Our Father *who*," for "Our Father *which*," and the version given is cited as that of Matthew [vi., 9-13] instead of that of the English Prayer Book. The sacrilegious hand then turns to carve a clause out of the Second Commandment, and, a little way on, to take vulgar liberties with the text of Shakespeare. If we did not think that our readers would tire of this "glutting of the guillotine" of criticism, we could keep on with similar exposures of imbecility and licence on the part of the compiler of this wretched book to the end of the magazine. But we have perhaps said enough to expose this very prince of pedagogues, and to reveal to the teachers of Canada what "an *arbiter elegantiarum* of our vernacular speech" we have in the compiler of "Gage's Practical Speller." We have nowhere met with a book which more shamefully cuts and hews at the lan-

guage than does this text-book which the publishers have the effrontery to offer as an instrument for instructing Canadian youth in the spelling and intelligible pronunciation of English. That it should pass out of the hands of the publishers in a *second and revised edition* indicates how loose has hitherto been the departmental supervision over text-books which have been allowed the *entrée* into our schools, and justifies the call for sharp and searching criticism to prevent the official authorization of such disgraceful books. It is full time that our educational literature should be saved from the headlong sciolism to which, in the hands of one house at any rate, it has been too long given over. It ought not to be difficult for the intelligent enterprise of other publishing firms upon the wrecks of the past to build a more worthy and enduring literature for schools.

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ONE HUNDRED AND THIRTY-FIVE KINDERGARTEN SONGS AND GAMES, by Mrs. Edward Berry and Madame Michælis, Members of the Froebel Society. London (Eng.): Hirst, Smyth & Son.

THIS is a well printed and neatly bound volume of entrance, ball, building, marching and parting songs; circle and imitation games, together with about twenty simple songs on miscellaneous subjects. The music is in the staff notation. Some of the pieces seem too childish for the children who attend our Public Schools, but a large number of them would be a valuable aid in varying the

terrible monotony of the young child's school life. The book is to be commended.

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"SILVER BELLS," AND "MAY BLOSSOMS," Edited and Arranged by W. M. Miller. London: Moffatt & Paige, 28 Warwick Lane.

THESE are musical publications, arranged on the Tonic Sol-Fa Notation. Each part of 'Silver Bells' consists of between thirty and forty songs in two part harmony; and of 'May Blossoms' a similar number of sacred and secular pieces in three part harmony. The price of each part is just one penny! The selections have been carefully made to suit the wants of Public Schools, and to those who make use of the Tonic Sol-Fa method they will be found useful.

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THE EDINBURGH COPY BOOKS, by John M. Green and the late William Dickson, Writing Masters. Edinburgh and London: George Waterson & Sons.

THIS is a series of ten head-line copy books of twenty-four pages each; the first four of the series have traced lines, and the writing of the whole is no improvement upon the caligraphy of twenty or thirty years ago. We have the conventional pot hooks and hangers, the text, half-text, and small-hand of our boyhood's days, all in the stiffest but no doubt most correct, Old World methods. One thing we can specially commend is their cheapness—they are sold at one penny each.

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"PREPARATION FOR SCIENCE TEACHING," by John Spanton, a work said to have been prepared in view of the requirements of the English Education Department, is about to be published by Messrs. Griffin and Farran, of London.

"A LITERARY HISTORY OF THE NINETEENTH CENTURY," by Mrs. Oliphant, the novelist, is one of the announcements for the Autumn book trade in England. The work is to be published by Messrs. Macmillan, and to appear in three volumes.

MESSRS. KEGAN PAUL, TRENCH & Co., of London, England, the publishers of the excellent "International Scientific Series," are about to issue an "Education Library," to be edited by Philip Magnus, of which the following are to be among the first issues of the series: "An Introduction to the History of Educational Theories," by O. Browning, M.A.; "John Amos Comenius, his Life and Educational Work," by Prof. S. Laurie, M.A.; and "Old Greek Education," by the Rev. Prof. Mahaffy, M.A.

## EDITORIAL NOTES.

## WHERE ARE WE IN EDUCATIONAL BOOK-MAKING?

In view of the prospective opening up of the question of a change in our School Readers—a change that in this Province at any rate is now conceded to be absolutely essential—any contribution on the subject will no doubt be acceptable to the teaching profession. In the present number we devote a good deal of space to a paper, from the English *Fortnightly Review*, on “The Dry Bones of Popular Education,” which suggests a radical change in the character of the matter which should be given in our School Reading-books. A perusal of the paper—which on many points will be instructive, or we would not have reprinted it—will no doubt lead many of our readers, as it has led ourselves, to ask in dismay the question, “Where are we in educational book-making?” In the construction of School Readers, for certainly two generations back, we have gone on the principle of making selections, in prose and verse, from miscellaneous writers of the time, representing an amount and variety of reading matter which would best suit the mental appetites of contemporary youth, and most satisfactorily store the mind with an adequate supply of useful knowledge. But according to Miss Mary Christie, who has thrown over the subject the cold chill of her criticism, we have all along, it seems, been pursuing wrong methods, though we have honestly and fondly thought that we were doing the best we knew how. It is true, that looking at the slatternly work turned out by some publishers not far from home, one specimen of which in our Review Department we expose the demerit of in the present number, we have little reason in Canada to boast of pursuing very intelligent methods in compiling our manuals for school

instruction. Still, this aside, have not our publishing houses on the whole been issuing their best (to be candid, sometimes, indeed, their worst!) in the interest of the schools, and on the most approved methods of imparting a sound, practical mental training? Yet, whatever may be the general assent to this, in the view of the *Fortnightly's* impatient censor of our school book methods, we have not been teaching what she calls “real literature.” In some respects, this radical critic is insensible neither to the enterprise of school book publishers nor to the attractions of modern School Readers. The merits of the latter, taking Nelson's “Royal series” as typically and from the highest judgment of the time the best, she readily, but with important qualifications, admits. But all of them—Readers, Geographical, Historical, Economical, Poetical, and Scientific—fail, in their construction and subject matter, to accord with her views. Such shreds of fact as these contain she considers unprofitable to be taught in elementary schools. She has higher and more original notions of what is suitable for the child-mind to absorb in the region of fact. History, at the same time, she observes, is the only subject that can be taught satisfactorily from reading books; while grammar and geography, she is not perhaps astray in saying, can by no means be learned “by reading about them.” Nevertheless, it is not history but *fiction* she would admit into the school curriculum. Hear this! oh ye jaded school-masters. Æsop and the fabulists are now to bring you relief! “The Phrygian,” indeed, “has spoken better than them all.”

But let us hasten to do this extraordinary school-book critic more justice. The indictment she brings against our modern Readers is this, that though they may succeed in teaching children *how* to read, they do not

incite to a *love* of reading, nor do they contribute to the interest or profit of the instructed. In her own words, she says that they "do nothing toward developing any higher tastes in those who read them, and very little in the way of storing the mind with ideas worth retaining through life." Verily, a grave, and, if true, a depressing judgment! "The Fables of Æsop," on the other hand, she affirms, "are among the classical things of knowledge." "The ideas embodied in them," she goes on to say, "are part of that common stock of culture which it is desirable to make known to everybody; and they are a part of it which children can understand and enjoy." Now, with every desire to extend the circle of admirers of the Æsopian Fable, and to promote a deeper knowledge of the "wit and wisdom" of that and kindred literature, we feel compelled to say that, however much they come within the understanding and the appreciation of the youthful heart and intellect, there are "bread and butter" facts which claim precedence in the curriculum of school studies, before we can allow the palate of the pupil to be cloyed with the sweets of a fanciful imagination, however impressive may be the moral. With like argument we would reply to Miss Christie's proposal that the Second Reader should consist of familiar fairy stories drawn from Grimm, the "Arabian Nights," and Hans Christian Andersen. Similarly, though assenting in some measure to the statement made by our author, that school reading-books ought to familiarize the scholar "with all those great names and great ideas which represent the common stock of cultivated thought and feeling in the civilized world," we premise that it is necessary first to determine the relative importance of those ideas, the prior acquirement of which will be most serviceable to the child-mind. Ascertaining this, and looking to the mechanical work first to be got over in teaching a child to read, we cannot hesitate to dissent from Miss Christie's unpractical theories on the subject, however captivating they may at first appear to the experimental educationist. While affirming

this, however, we cannot but give the reviewer credit for calling attention, even so fancifully, to the necessity of making selection for our School Readers of matter that shall unquestionably interest children. It is quite possible—and Nelson's "Royal Readers" are a signal proof of this—to interest as well as to instruct; and this may be done without divorcing imaginative literature from its due place in the school "Learning Book," or preventing the child from nourishing its mind upon the "common stock of culture." To reverse the order, by relegating serious studies to the home and introducing nursery literature into the school, we feel sure, would not be to promote the interests of education, at least as these are to-day understood. Even were our present methods upset, we doubt whether the "Arabian Nights" or "Alice's Adventures in Wonderland" would retain their charm if they had to be learned as a school drill. The mythological stories of Greece and Rome are no doubt rich in ethical teaching, though from a Christian point of view they would necessarily be imperfect. But if the child had to acquire a knowledge of these at the end of the birch, we can scarcely conceive his desiring to make any very close study of them. Retributive justice, the moral of much of classical story-telling, would at least be sure of receiving a frequent and practical illustration. Seriously, however, there can be little advantage in making so great a departure from our methods of book-making as to try an experiment with Miss Christie's theories. In this country, at any rate, though the liberalizing and refining influences that come of familiarity with classical literature would be a gain, our wants are undoubtedly on a lower plane and in a more practical sphere. Here the soil would be unfavourable to Miss Christie's exotics, though her book of patron saints and knighthoods might chime in with not a little of our imported national organizations and transplanted Imperialism. These, however, are not the things we want perpetuated in Canada; and it is one of the weak points in Miss Christie's project to desire to remind us and to

keep alive the memory of them. On the whole, in this material age, we cannot think that "The Dry Bones of Popular Education" can be presentably arrayed in the garments of Miss Christie's choosing, nor can we imagine that there will be any widespread opinion in favour of the utility of her views.

#### ANOTHER STAGE REACHED.

WE have reason to congratulate ourselves and our supporters on the fact that with the present number we reach the close of the third volume of *THE CANADA EDUCATIONAL MONTHLY*. We will not say that the success of the publication has outstripped the expectations of its founder, the present writer; but it will be satisfactory to our friends to learn that the magazine has passed beyond the stage of good wishes, and has, we doubt not, established itself as a permanent and indispensable organ of the profession. It has now a fairly remunerative circulation, good advertising patronage, and a steadily increasing influence. We trust that it may be said of the publication that it deserves its success. If honest, disinterested effort in a good cause is a merit, the proprietors and conductors of *THE MONTHLY* may well claim their due. The contributors and supporters of the publication are also entitled to share in our felicitations.

In the coming year no effort will be relaxed in maintaining, in all departments, the efficiency of the magazine, and in endeavouring to extend its hold upon the teaching profession. The interest of its patrons, it cannot be too often stated, is the interest of those who own it, and in the common cause all should seek to build it up. The need of a high-class journal representing education in Canada is constantly on the increase, and the want of an independent, outspoken organ—unconnected with trade and uninfluenced by officialism—was never greater than now. Whatever has commended us to favour in the past should, hence, commend us the more to-day. The really good, we know, rarely appeals in vain. In this assurance

we again leave the fortunes of *THE CANADA EDUCATIONAL MONTHLY* in the hands of its friends.

EXAMINATION PAPERS AND ANSWERS.—Beginning with the January number, the Arts and High School Departments will be combined, and besides the Mathematical Papers and Solutions that have appeared from month to month in the former, there will be included papers in the various departments of English, Moderns, and Classics, selected with a view to the requirements of Public and High School Masters. It is intended that this feature of the magazine shall be a prominent one, and our readers may rest assured that no efforts will be spared to make it the best of its kind. Editorials of the character of those that have hitherto been published in the High School Department will be given, as occasion may require, in the proper editorial column.

OUR cousins on the other side of the line are bringing out two series of American biographies which will be of interest to students of politics and literature. One deals with American Men of Letters, the first issue of which, "Washington Irving," by Charles Dudley Warner, has just appeared. The other series is devoted to the "Lives of American Worthies," of whom Columbus, Captain John Smith, William Penn, Washington, and Andrew Jackson are of the number.

OUR readers who are interested in the lives of English publicists and the controversies associated with their names, will do well to get hold of Mr. John Morley's admirable "Life of Cobden," and Mr. Barnett Smith's "Life and Speeches of John Bright," both of which have recently appeared and have been much praised by the critics.

THE American Book Exchange, of New York, has gone into bankruptcy, and affords another proof that cheap publishing, like cheap education, cannot run a long or successful race.

THE example of acting a Greek play in the original, we notice, is about to be followed by the students of University College, Toronto, who intend shortly to give a representation of the "Antigone" of Sophocles. The success elsewhere of the "Agamemnon" of the same author, and of the "Alcestis" of Euripides, has been great, and must have been helpful in vivifying the period of Greek art and literature to the minds of present-day collegians.

MESSRS. APPLETON & CO., of New York, have just issued M. Alfred Sardou's "Manual of French Idiomatic Phrasology," containing one hundred and eighteen progressively arranged conversations, embracing and elucidating the whole mechanism of the language. The book will be found a capital aid to students of the French language, to whom its idioms are a stumbling-block, and who feel shaky in the use of adverbs, prepositions, and conjunctions.

THE fascinating *raconteur*, Jules Verne, is out with a new work, the title of the English translation of which is "The Giant Raft, or, Eight Hundred Leagues on the River Amazon." The work is embellished with numerous characteristic illustrations, and no doubt it will furnish another *gobemouche* for

the unappeased appetite for the adventurous and the marvellous in the youth of both hemispheres.

THE new volume of the "English Men of Letters" series, edited by Professor Morley, is DeQuincey, whose memoir has been written by Professor David Masson, of Edinburgh University. The issues of this admirable series should be in the hands of every teacher, and their cheap price makes them easily attainable.

MR. JOHN MURRAY, the London publisher, announces a collection of the speeches and addresses, political and literary, delivered in the House of Lords, Canada, and elsewhere, by the Earl of Dufferin, our late Governor-General.

A VOLUME of selections from the writings of the novelist, W. M. Thackeray, chiefly philosophical and reflective, has just been published, and presents a delightful *pot pourri* of the moralist's social philosophy.

THE *Athenæum* announces that a collection of the mathematical papers of the late Professor Clifford, which has been for some time expected, may now shortly be looked for.

## SIGNS OF RAIN.

Audi ! nunc celeres subito dant flamina venti,  
Nunc nimbi tenebris astra polumque te-  
gunt ;  
Fuligo delapsa jacet, dormitque catellus,  
Linqvit aranea opus, pendula tecta, suum :  
Pallidus Hisperias Phœbeus descendit in un-  
Lunæ cingebat clara corona caput ; [das,  
Tristia sollicitus ducit suspiria pastor,  
Arcus nam cœlo lucida signa videt.  
Versicolor pavo conclamat, anasque tetrinnit,  
Adstare apparent nunc juga celsa mihi.  
Vix miseræ porcos retinent obstantia claus-  
tra,  
Vacca levi muscâ puncta per arva ruit :  
Remigio alarum campos perstringit hirundo,  
Incipit et gryllus sæpe crepare foco ;  
Villosis pedibus considit felis ibidem,  
Hispidâ flexilibus dum terit ora comis.

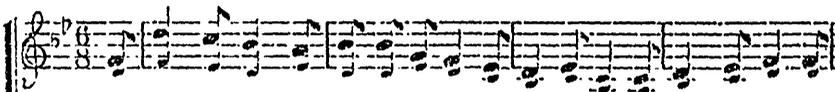
*Grimsby.*

OLD RUGBEIAN.

The hollow winds begin to blow,  
The clouds look black, (the glass is low,)  
The soot falls down, the spaniels sleep,  
The spiders from their cobwebs peep :  
Last night the sun went pale to bed,  
The moon in halos hid her head ;  
The boating shepherd heaves a sigh,  
For, see, a rainbow spans the sky.  
Loud quack the ducks, the peacocks cry,  
The distant hills are seeming nigh.  
How restless are the snorting swine !  
The busy flies disturb the kine :  
Low o'er the grass the swallow wings,  
The cricket too, how sharp she sings !  
Puss on the hearth, with velvet paws,  
Sits wiping o'er her whiskered jaws.

# GEOGRAPHY SONG.

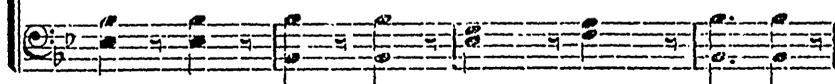
MRS. M. B. C. SLADE.



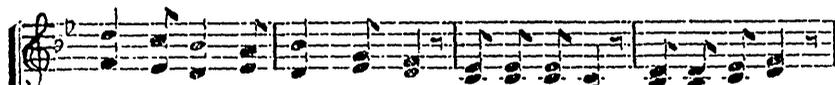
1. Oh, have you heard Go - og - ra - phy sung? For if you've not, its on my tongue, A -  
2 All o'er the earth are wa - ter and land, Beneath the ships or where we stand; And  
3. All o'er the globe some circles are found: From east to west they stretch around, Some  
4. Oh! don't you think 'tis pleasant to know A-bout the sea and land just so? And



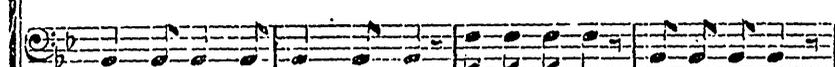
bout the Earth in air that's hung. All covered with green lit - tle isl - ands.  
far be - yond the o - cean strand Are thousands of green lit - tle isl - ands.  
go from north to south-ern bound Right o - ver the green lit - tle isl - ands.  
how the lines, the cir - cles, go, Right o - ver the green lit - tle isl - ands.



## CHORUS:



O - ceans, gulfs, and bays, and seas; Channels and straits, sounds, if you please;  
Con - ti - nents and capes there are, Isthmus and then pen - in - su - la,  
Great o - qua - tor, tro - pics two' Lat - i - tude lines, lon - gi - tude, too,  
Now your hear how we can sing: This is, to - day, all we can bring.



Great Archi - pel - a - goes, too, and all these Are covered with green little isl - ands.  
Mountain and val - ley, and shore stretching far, And thousands of green little isl - ands.  
Cold po - lar cir - cles, and all these go thro' The thousands of green little isl - ands.  
Come a - gain soon, and then you shall hear sung 'The names of the green little isl - ands.

