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IN Washington Territory school matters appear to be conducted in a mode hardly satisfactory, according to a statement contained in a communication from Mr. John Tait, a Canadian, who has taken up his abode there. The fact of his having been at one time a school teacher in this country, will lend to his views additional interest to most of our readers. He writes from Tacoma, under date of 24th December, to the *Guelph Daily Mercury*, that in educational matters everything is as yet pristine. There is comparatively little system in the management of schools. A liberal support is given, but the results are comparatively meagre. There is a perplexing variety of text-books. The instruction sought for and given is superficial. The substantial is not wanted. Polish and show meet all demands. Private schools and colleges are numerous and well supported. Boarders in these institutions pay, without grudging, \$6 to \$8 a week, besides extras for their board and tuition.

Day pupils pay from 75c. to \$1.50 per week. How many schools in Canada would dare to impose such fees? The salaries run from \$35 to \$60 per month for actual service. In each county, every two years, the people elect a superintendent from amongst the teachers. This superintendent teaches as long as he can each year, spending two or three months in examining the schools of his or her fellow teachers. There are in the Territory eighteen male and fifteen female superintendents. There is, besides, a Territorial superintendent who teaches part of his time. These superintendents receive a salary of \$300 or \$400 besides their salary as teachers. From this you may see that this is by no means a land of milk and honey for teachers. Four or five schools in the Territory pay from \$1,000 to \$1,500 a year for principals.

EDWARD ATKINSON'S paper "on the relative strength and weakness of nations," in the New Year's number of the *Century Magazine*, is both interesting and instructive. The paper very properly begins with an explanation of what the term "strength" as applied to a nation means. He borrows his definition from a writer on finance, who lived and flourished in the good old pre-revolution days, one Pelatiah Webster. The riches of a nation, according to this old economist, do not consist in the abundance of money it possesses, "but in number of people, in supplies and resources, in the necessaries and conveniences of life, in good laws, good public officers, in virtuous citizens, in strength and concord, in wisdom, in justice, in wise counsels and manly force." Having thus shown what, in his estimation, constitutes the real strength of a nation, Mr. Atkinson goes on to show in what degree the United States contains these elements of strength. As the conditions of progress are almost the same in Canada as they are in the United States, the facts adduced and the conclusions arrived at by Mr. Atkinson are almost as interesting to Canadians as they are to the citizens of the great republic.

THERE is one subject on which Mr. Edward Atkinson's statistics, in his article "on the relative strength of nations," published in the *Century Magazine*, are peculiarly interesting. He shows that the growth of wealth in the United States is synonymous with growth in the general welfare, that there is no truth in the complaint that while the rich have been growing richer, the poor have been growing poorer. He shows in the first place that the earning power of money is less, very much less, than it was twenty years ago. In 1864 \$100 gold invested in United States bonds of the best class earned \$16.66 per cent. per year. At the present time the earning power of \$100 in gold coin invested in 4½ per cent. bonds is only \$2.20 per cent. per year. From this it is clear that the capitalist does not get as much for his money as he did twenty years ago. Let us see how it is with the labourer. In 1860 the wages of a workman of ordinary capacity was \$1.68 gold, in 1865 it was \$2.85 in depreciated paper, in 1886 it was \$2.04 in gold, in 1860 a workman of superior skill earned \$3.37 per day, in 1865 \$2.75, paper. In 1885 such a workman earned \$3.00 per day. Now let us see what the purchasing power of the workman's wages were at these different dates, that is how much of the necessaries and comforts of life would the workman's dollar buy. The purchasing power of the dollar in 1860 is taken as the standard. At that date the workman's dollar would purchase him one hundred cents' worth of two hundred articles on which the calculation is based. In 1865 his dollar would buy him only 56.84 cents' worth, but in 1885 he could buy with his dollar 1.26.44 worth, that is one dollar in 1885 was as good to the workman as \$1.26 in 1860. This is different from the general belief, but it is true, nevertheless. The deposits in the savings bank of Massachusetts show that the working classes were much better off in 1885 than they were in 1865. In that year the amount of the deposits in the savings bank of that state was \$59,936,482, in 1885 it was \$274,998,412. The population in 1865 was 1,267,329, in 1885 it was 1,941,465.

Contemporary Thought.

PROF. SAUNDERS, chief director of the Dominion experimental farms, is engaged preparing a report of his recent trip. Speaking of British Columbia, he says: "The prospects are that stock-raising, fruit-growing, and dairying will be there indulged in on an extensive scale. The coast climate will not prove favourable to wheat culture, owing to the excessive rain falls, but roots and fruits of all descriptions will thrive exceedingly. East of the Cascades is a fine stretch of country, unsurpassed for ranching purposes. The works in the province next year on the proposed farm will include experiments with permanent grasses suited for stock raising, as well as experiments in dairying, cereals, and roots." When the work is inaugurated farmers from British Columbia to Nova Scotia will be able to send their grain to the central farm at Ottawa, and have its germinative powers tested free of cost.

M. RENAN has assured us in his "Souvenirs de Jeunesse" that he is a singularly modest man, so there can be no doubt upon the point. The encouragement, then, which he gives to the attempts to place "L'Abbesse de Jouarre" on the stage, must be regarded as another proof of the fatal fascination possessed by the footlights for even the most staid of sages. The dialogue has been acted at the Teatro Valle in Rome, and is soon to be produced in Milan, whether M. Renan proposes to betake himself in order to see it and make arrangements for its production in Paris. After all M. Renan is not the first great poet (for such he is in a sense) who has become stage struck in his old age. We have instances nearer home, and if any one had proposed to put the "Symposium" on the stage, it is not certain that Plato himself would have resisted the temptation to attend rehearsals and pose as a playwright.—*Pall Mall Gazette*.

WHAT constitutes the abiding fascination of Lamb's personality? Not his funny sayings—let the funny man of every generation lay this well to heart. His humor? Yes—for his humor was part and parcel of his character. It is character that makes men loved. It was the rare combination in Lamb of strength and weakness. He was "a hero with a failing." His heroism was greater than many could hope to show. Charity, in him, most assuredly fulfilled the well-known definition. It suffered long and was kind; it thought no evil, and it never vaunted itself nor was puffed up. And as we watch its daily manifestations, never asking for the world's recognition, and never thinking it had done enough, or could do enough, for its beloved object, we may well reckon it large enough to cover a greater multitude of frailties than those we are able to detect in the life of Charles Lamb.—*Macmillan's Magazine*.

TECHNICAL education in all countries is now receiving special attention. It is a generally recognized fact that only by careful scientific training in the most common trades can any nation hope to keep up with the age. Germany seems to have been the first country to recognize this nineteenth century necessity, and the comprehensive system of technical education for mechanics, which has been carried out for several years, is already bearing fruit in a superiority of German goods,

both in texture and appearance, which is now recognized in all the markets of the world. In the different German states there are now numerous training schools for the mechanical education of young men and women in every department of skilled labour. A college for weavers at Mulheim on the Rhine, has given a full course of instruction to over seventeen hundred students. The education at these institutions is remarkably thorough to every detail of the trade studied, and no one can graduate until he has become practically proficient in his chosen profession. Perceiving what has been accomplished in Germany, the leaders of thought in other nations are now energetically taking steps to follow her example. In England there is some talk of establishing a technical university.—*Halifax Chronicle*.

IN Germany the woods have their police, whose duty it is to see that no devastation is wrought by inconsiderate owners. No man may cut down his trees without the sanction of these authorities. The reason is that wood is the staple fuel of the country, and if the government did not step in to protect the people against their own improvidence, the peasants would speedily sweep away all their forests to enable them to clear the mortgages which the Jews hold on their lands. In Bavaria the price of fuel rose, between 1830 and 1860, as much as sixty per cent., and building timber rose seventy per cent. In the sixteenth century the forests had dwindled so much, and the cost of firing had risen so high, that the princes took the forests under their sovereign protection, and appointed a class of officials, whose duty it was to see after the fuel supply in their provinces, and look to the protection of trees just as the police have to see to the protection of citizens. One result has been that no trees are allowed to grow longer than when they have reached maturity. After they have attained a certain age their rate of growth is so slow that their room is needed for younger plants, and they are cut down. Thus a pine reaches its perfection after its thirtieth year, and goes back after its eightieth. As a rule, a forest is cleared and replanted every thirty years, and it is an exception anywhere to see an older pine or beech. But the Bohmer wald has not been subject to this policement, and there do remain in it magnificent pines several hundred years old.—*Cornhill Magazine*.

THERE are few words which exert as great an influence upon the popular imagination as does the term *liberalism*. Let a politician or a preacher, or any other pretender, but call himself *liberal*, and he will have a following. The term as commonly used is entirely modern. In France and Spain it was used extensively from 1814 to 1830, when every opponent of the absurd Bourbons delighted to call himself a *liberal*. The word is said to have received its modern sense from Madame de Staël or Chateaubriand; but it occurs in a famous epigram of Ecouchard Lebrun's, and he died in 1807. Littré thinks that the term arose during the Consulate. In England the term was introduced by Lord Byron, who began to publish the *Liberal*, a periodical, in 1822. Lord Byron probably borrowed the term from the French. In this country the term is used almost exclusively of theology, except in the common sense of polite (liberal arts) or lavish (liberal gifts). In Boston a minister is called a liberal when he rejects the Andover creed

and, perhaps, the apostles' creed. In the United Kingdom a man is a Liberal when he professes to hate the Conservative programme. In France the term is no longer a favorite. In Germany liberalism means opposition to the prerogative of the crown, or to established creeds. Originally, that is in Latin, the word meant "worthy of a free-born person," or "generous." It is a little puzzling why an opponent of a creed or of a person should be called a liberal; but the term is prized throughout the English-speaking world as much as are the words reform and progress. Most likely the term *liberal* is so popular because it is associated with the idea of lavishness or pecuniary generosity.—*Boston Beacon*.

MR. C. E. HOWARD VINCENT, with the assistance of Mr. Stephen Bourne, the well-known statistician, has prepared a table showing the value and general character of the interchange of commerce between the various sections of the British Empire. The table is of great interest to Canadians, as it indicates the possibilities of development of the trade between Canada and the other colonies. Last year, the Colonial and Indian peoples purchased from the United Kingdom in round numbers \$537,465,000 worth of goods, while they exported to the United Kingdom in round numbers \$494,000,000. The trade between Canada and the United Kingdom amounted to about \$94,721,400. Excluding the United Kingdom, the trade between the different British possessions amounted to about \$209,755,000. Of this intercolonial trade Canada's share amounted to only about \$7,000,000. This trade is capable of very great expansion. Now that the Canadian Pacific railroad is completed, Canadian merchants and manufacturers should be able to make enormous sales in Australia and the other islands of the Pacific. New South Wales, Queensland, South Australia, Victoria, Western Australia, Tasmania and New Zealand, together import annually from the United Kingdom about \$27,883,960,000 worth of goods. From other British possessions they import \$114,501,600 worth of goods. The last amount, however, includes the exchange of goods between the different Australian colonies, and cannot be regarded as an indication of their combined buying capacity. What is of most interest is the fact that these Australasian colonies annually purchase from the United Kingdom nearly \$28,000,000,000 worth of manufactured goods. Canada is much nearer to Australia than England, and Canadians should be able to secure a large share of that enormous trade. If Canada could secure the one-hundredth part of that trade with the Australian colonies, it would amount to nearly \$280,000,000, whereas at present the Canadian exports to all the British possessions, excluding the United Kingdom, only amounts to about \$4,179,600. For such great stakes Canadian manufacturers ought to be prepared to take great risks. Every effort should be made to advertise Canada and Canadian goods in the Australian colonies. Exhibits of Canadian manufactures should be sent to all the Australian exhibitions, Australian newspapers should be patronized, and travellers should be sent to all the cities and towns of Australia to drum up business. Men of enterprise and push may make big fortunes by working to establish a commercial connection between Canada and Australia.—*Montreal Star*.

Notes and Comments.

WHERE does Manitoba procure its supply of teachers? A few years ago a sufficient number, qualified in the eastern Provinces, could be counted on, but this is the case no longer. The Province must now make suitable provision for their instruction in its own schools, or deterioration may certainly be looked for. Winnipeg, Brandon, and the Portage are at present the main sources of the supply of candidates for the July examinations, though these schools as yet receive no legislative assistance as high schools. The time seems ripe for the establishment of three or four really good schools of this class in the Province with the special object of educating candidates for passing the entrance examination into the teaching profession.—*The Manitoban*.

IN the current number of the *Century* we are told by Professor William M. Sloane, the gifted editor of the *New Princeton Review*, that "change and bereavement, toil and anxiety, have in no way diminished or altered the [Mr. George Bancroft's] capacity for appreciation of what is best in life and mankind." The word *nor* should be substituted for *or*. A negative clause cannot be added to a negative clause by an affirmative term, the proper terms being *neither* and *nor*. Very fine illustrations of the correct use of negatives occur in the Bible, St. John vi. 24; Job xxxii. 9, and especially St. Luke xiv. 12. The King James' version is remarkably idiomatic in the use of negatives; the revised version is not. In English two negatives do not always make an affirmation. In Shakespeare's expression (II Henry iv. 2, 1) "No, nor I neither" an emphatic negation is the result of the two negatives *nor* and *neither*.—*Boston Beacon*.

IN *The Chautauquan* for February, Susan Hayes Ward has an article on "In-Door Employments for Women." She gives many practical and original suggestions, and thus concludes: "Any woman who is determined to become a bread-winner can do so successfully, if she turns her hand to the first thing that offers, no matter how humble, and does it with her might, following out with faithfulness George Herbert's rule of making drudgery divine. The worker is always in the line of promotion. It is not the idle woman who is called to a position of trust, but the one who has proved herself of worth in the place she now fills, for it is only from the best of to-day that we make a stepping-stone to a better to-morrow. Nor should we forget, in treating the subject of woman's home earnings, that a penny saved is a penny earned, and that the woman who 'looketh well to the ways of her household, and eateth not the bread of idleness,' who

administers her home affairs with prudence and economy, contributes as truly to the family exchequer as does the one who brings home each week a pocketful of wages."

THE new catalogue of Yale University presents clearly and fully the scope of study offered there, and enables one to make a comparison with that at Harvard. The requirements for admission do not greatly differ so far as classics and mathematics go, except that Harvard presents an option between one of the ancient languages and a rather severe equivalent in physical science, and a choice of modern history in place of ancient. But Harvard also requires a considerable amount of English and of physical science, which Yale does not demand at all before the second or third year in college. All the studies of the first two years at Yale are prescribed, and consist wholly of classics, mathematics, and one modern language in the Freshman year, and the same in the Sophomore year, with the addition of English. The elective system applies to eight hours a week out of fifteen, Junior year, and twelve hours out of fifteen, Senior year, in class-room exercises, the rest being prescribed, and consisting mainly of physical science and philosophy. The elective courses from which choice may be made are ninety-two in number, arranged in seven departments—Mental and Moral Science, Political Science and Law, History, Modern Languages, Ancient Languages and Linguistics, Natural and Physical Science, and Mathematics.

THE *London Schoolmaster* says that the first qualification of an inspector is that he should have a thorough practical acquaintance with the whole working of the kinds of schools he has to examine—that he ought to know by experience what it is to teach under the conditions imposed by the school regulations. The second qualification is that he should be well educated. He should be cultured and in his tastes catholic. Knowledge, of itself, is not culture; knowledge only becomes culture when it is assimilated by the mental tissues, just as food only becomes nutriment when it is assimilated by the bodily tissues. Many people speak as if possession of a university degree were an indisputable proof of culture. It proves the possession of a certain amount of knowledge, but it does not necessarily betoken anything more. Some graduates lack breadth of view, lack even learning in its true sense; while some men who are not graduates possess these qualities in large measure. An inspector's opinion on education should not be bounded by the four walls of a school; he should know the philosophy of the subject and its history, the methods of other countries and other times; he should remember that

education was ere code began and will be when the last code has passed away unwept, unhonoured and unsung. The third qualification is that he should be a gentleman—just and upright, gentle and considerate; that he should behave to his superiors without servility, and to his inferiors without arrogance; that he should be acquainted with the usages of good society, and be as much at home in the drawing-room as in the school, and behave with as much courtesy in the school as in the drawing-room.

THE address delivered by Prof. John Henry Wright at the opening of the eleventh academic year of Johns Hopkins University has been published in pamphlet form. It is extremely interesting and suggestive. Its subject is "The College in the University and Classical Philology in the College." It embraces an explanation of the purpose of the college attached to the university, which has this special characteristic that it was founded with a view to preparation for the university, and its students are expected to pass in uninterrupted progress from entrance in it to the highest stage of university work. With this end in view the plan of the college is meant to avoid rigidity on the one hand and on the other too great liberty of choice to those as yet incapable of choice, and too strict specialization of study by those who are as yet unfitted to decide on the general course they will pursue as on the particular studies of each year. In this college course Prof. Wright explains that much work will be devoted to "classical philology." But by this term is not meant merely the study of the classic languages, or even of the classical literature alone. The term "covers all that is included in the study of the life and thought of the Greeks and Romans as regards the man, society, politics, religion, art; it is the science of classical antiquity; it includes above all the languages and literatures of the ancients, since it is in these that the mind and soul of antiquity have most perfectly recorded themselves, and it is these that have wrought themselves most potently into the leaven of modern thought; it includes also institutions, without some clear insight into which it is impossible to appreciate the ancient world, or even the modern world which has arisen upon the ancient differing thus from history only in its point of view and in its method, and not at all in its subject matter; it includes equally the material products of ancient art, upon which even in their fragmentary condition the skilled imagination may charm back into ideal existence wonderful visions of external loveliness." Stated in this way it hardly seems that there is any room for debate as to "classical" studies in the college course.

Literature and Science.

THE TEACHERS' SORROWS.

THROUGH a noble profession,
It meets with oppression
Again and again,
We poorly-paid teachers
(We don't include preachers)
Are saddest of men.

To acquire our knowledge,
We must go to a college
At very great cost ;
With sighs and with tears,
We study for years ;
Health often is lost.

The famed midnight oil
We burn in our toil,
With cheek so pale ;
Learning Latin and Greek
From week unto week,
Till our sad hearts fail.

Then examiners will pluck ;
'Tis sometimes our luck
To be left in the cold ;
If we're one mark behind
To our virtue's they're blind ;
We're out of the fold.

When we get a situation,
With fond anticipation
We buckle to work ;
Our soul is afloat,
We would carve out a name,
And we slave like a Turk.

Too much is expected
Of us when elected
To a two-fifty school,
With intellects ample,
We can't, for example,
Put brains in a fool.

For a while all is quiet,
Then there breaks out a riot,
For boys must have fun ;
And this age is so polished,
All thrashing's abolished,
So discipline's done.

Those boys must be petted,
By parents abetted,
No matter how bad ;
And should teachers flog them,
Policemen soon deg them ;
To say it we're sad.

And we pedagogues clever,
Whose constant endeavour
Is the good of our flocks,
The magistrates fine us,
Or to lock-up consign us—
Our office he mocks.

Whip a culprit we daren't,
For fear of his parent ;
And when we do flog,
We incur the vile hate
Of some learned magistrate.
Pity the pedagogue.

If the student progresses,
The parent confesses
" His child is so clever ; "
No praise reaches us ;
Our faults they discuss,
Vain our endeavour !

If the student is dull,
And no knowledge can cull
From Kirkland and Scott ;
If we can't even hammer
Into his head grammar,
Woe is our lot !

Should a male teacher smoke,
Or a girl pass a joke,
Our patrons will say,
" They're but a poor sample,
They're not much example,
Let's lower their pay. "

We must shun all the Tories,
Nor speak of their glories,
For fear of the Grits ;
If we lean towards Mowat,
How soon the others know it,
And then we get fits !

Thus poorly-paid teachers,
Those much abused creatures,
Having envy incurred,
A voice from the gallery,
" We pay too much salary ! "
Is very soon heard.

It seems truly horrid
To think that our forehead
Should bear mark of Cain.
So much is against us,
Those things so incense us,
Our life is a bane.

THE LICK OBSERVATORY TELESCOPE.

THERE is something almost romantic in the design and construction of the monster Lick Telescope. Being the greatest work of the kind ever undertaken, presenting difficulties that had never before been encountered, inviting and suffering drawbacks and disasters that seemed to be sufficient to stagger the most persistent and painstaking skill ; watched from day to day by a whole world of anxious observers, hovered over and caressed by the united wisdom of a generation—the lens has come into the world with its great cyclopean eye ready to pierce the mysteries of the heavens. Captain Thomas Fraser, superintendent of the observatory, furnishes some hitherto unpublished and highly interesting information concerning the grinding of the crown glass lens, and the plan adopted for transporting it from Cambridgeport, Mass., to San Jose. On the subject of the grinding, he says that the closest measurement at command was 100,000th part of an inch, but in grinding the great lens it was discovered that even this infinitesimal fraction was too large. A still finer measurement was required in re-

ducing the lens in numberless places to thickness (itself unequal) that would exactly concentrate parallel rays of light, filling a circle three feet in diameter to a point a little larger than a pin. In order to reduce the fine measurement already at command, the following ingenious arrangement was employed by Alvan Clark & Sons, makers of the lens :—A gas-jet was placed before a mirror, which sent the rays of light through a telescope to the great lens, thus magnifying the rays. The magnified light, passing through the great lens, was still further immensely magnified ; and, after having passed through this lens, it was observed through a second telescope, and thus further magnified. In this way the least failure of the great lens to concentrate perfectly was detected, and there was also determined the amount of glass in it, at any given point, that had to be ground off, in order to secure a perfect focus. Thus a measurement of the 2,000,000th part of an inch was secured. It took very little grinding to remove so small a thickness of glass from a given point, a gentle rubbing with the thumb being sufficient, as the glass is softer than common window glass.

The two great lenses for the Lick telescope, on which the Messrs. Clark, of Cambridge, have been so long at work, are now practically completed, and will soon be sent to their destination. The plan adopted for shipping the double lens, worked out by Captain Fraser, is as follows :—The two glasses will first be wrapped separately in fifteen or twenty thicknesses of cloth, drawn very tight. The cloth will be cotton, and in order to make it soft and perfectly free from grit, it will be washed many times and thoroughly beaten. Next to the cloth will come a thick layer of cotton batting and then a layer of paper. The lenses with their covering will be packed tightly in this box. The shape of this box will conform to the shape of the lenses. The felt will be attached with glue, so that no nails will be anywhere near the glass. Outside of this wooden box and enclosing it will be a strong steel box, about the shape of a cube. The wooden box will be tightly packed into the steel box with curled hair. To enclose this steel box will be still another steel box or chest, and the inner steel box will be kept from touching it by a large number of spiral springs covering the whole interior of the outer steel chest. This outer chest will be packed with asbestos, to render it fireproof, and both of the steel boxes will be made airtight and waterproof. The outer chest will be suspended by pivots in a strong wooden frame, and a contrivance has been adopted for turning the chest one-quarter round every day during its progress to California. This is to prevent any molecular disarrangement in the glass and avoid the danger of polarization, it being feared that the jarring of the train will disturb the present arrangement of the molecules, unless the position of the glass is daily changed and all lines of disturbance thus broken up. The glass will be insured for its full value—or rather its cost—\$51,000, and all the precautions mentioned are taken to prevent any accident to it. It would probably be impossible to replace it, as Fell, who cast it, and the elder Clark, who ground it, are both old men. The glass will be shipped by express.—*Boston Transcript.*

Special Papers.

ENGLISH LITERATURE.*

THE enthusiastic musician thinks and talks of nothing but music, and if asked his reason would probably answer that there is nothing else in this world worth thinking or talking about. One cannot please the scholar versed in classic lore better, perhaps, than by asking him to expound the benefits accruing from a thorough study of Greek and Latin; with beaming smiles he enters upon the task of proving that an intimate knowledge of Virgil and Homer, of Cicero and Demosthenes, is a panacea for all the ills that human intellect is heir to. The mathematician is ready at any moment to lay down his life in defence of sines and cosines, symmetry and surds, and hardy indeed is he who would dare to face him, especially when the heavy guns of euclid's reasoning are brought to bear.

But whilst these branches of study all have their champions—and they need them or they would not have them—I fancy I should be but “carrying coals to Newcastle” were I to stand up before this convention and occupy its time with arguments intended to establish the claims of English Literature. Few, if any, I imagine, will be found to dispute the statement that if there is any subject, of those pursued in obtaining a good English education, to which greater prominence should be given than to others or upon the methods of teaching which more than ordinary thought should be bestowed, it is the beauties and capabilities of the English language as exhibited in English Literature.

Whilst all, however, are agreed on the importance of studying our own mother-tongue as employed by its greatest masters, opinions differ, perhaps, as to the manner in which this study should be conducted. Indeed the slightest reference to the official examination papers on the subject set in Ontario within the last ten years, reveals the fact that in that time an almost complete revolution has taken place in educational opinion regarding the treatment of English Literature in our schools.

It is the discussion of the question then involved in this difference of opinion that, I presume, would prove most acceptable to a convention such as this. Consequently it is to this question that, in the preparation of the present paper, I have more particularly addressed myself: *On what lines should the study of English Literature be conducted in our schools?*

To answer the foregoing question satisfactorily, it is perhaps first necessary to answer one or two others. What is English Literature—or any literature for that matter? One authority on the subject has defined litera-

ture as “the thoughts and feelings of intelligent men and women expressed in writing “in such a way as to give pleasure, not “merely by the things said, but by the artistic “way in which they are said.” In other words, literature is a work of art, its medium *language*, its subject *thought*, and its patron *intellect*. As a work of art, it must contain beauties to admire and (since no work of art is perfect) defects to criticize; it must afford models for subsequent artists to follow, as well as errors in taste and judgment for them to avoid.

And who are these subsequent artists? Are they only these few bright lights whose names are to be handed down to posterity, swelling the already glorious list of never-dying men of whom Coleridge says:

“The truly great have all one age.”

or are we to add to these only those lesser lights of the literary world who, without the hope of acquiring the immortal fame of a Shakespeare or a Milton, are content if they can but gain a passing recognition from their own generation? Shall we even stop at those who, unambitious to be known at large by name, regard their literary abilities solely as a qualification for entering the field of journalism and as a means of earning their livelihood? Is not the circle wider still? Are we not, should we not, all be learners in the studio of literary art—we who lay claim in any degree to education, to intellectual refinement? Is it not expected of one who calls himself educated? does he not expect it of himself, that he should be able to express himself readily, elegantly and forcibly on any ordinary subject with which he may be called upon to deal?

Whence then is he to acquire that power unless it be from a study, either conscious or unconscious, of the methods successfully employed by those before him? Show me the boy in your class that is fondest of reading (reading, I say, not brain-poisoning), and I will show you the boy who hands in the best weekly composition.

Literature, then, is a work of art, the study of which is a means of acquiring proficiency in the use of one's own mother-tongue. Moreover, literature, besides exhibiting the capabilities of *language*, is a store-house of noble *thoughts*, to which the noblest minds of every age have contributed—an exhaustless mine of intellectual treasure.

Viewing literature in the light of these considerations, we see that it has a three-fold aspect:—(1) it is a source of pleasure; (2) it can be made the means of developing our powers of language, and (3) it affords food for the growth and expansion of the mind. Now, each of these aspects should be borne in mind by any one desirous of profiting to the full extent by a study of literature. There are many persons who will tell you that they are fond of literature but who,

because they keep only one of its aspects in view, miss a great part of the good to be derived. The only object that the great majority of those who profess to be lovers of literature have in reading it, is the passing enjoyment, the mental diversion it gives them amidst the busy turmoil of more practical pursuits. Now against this motive for devotion to literature not a word can be said. The pleasure that is the result of such devotion is intellectual and therefore higher than any other. Man must have pleasure of some kind, and if there be any determined to compensate themselves for the wearisome cares of business by the pursuit of pleasure, and nothing but pleasure, let us recommend them that form of it that is the purest because unaccompanied by any real pain, and the noblest because it contributes in a certain degree to intellectual improvement. No, I do not wish to be understood as discouraging a devotion to literature based upon the pleasure it affords. What seems to me a shame, however, is the fact that with so many that should be the only motive, the other elements of value being thrown like chaff to the winds, or, if perchance any lasting good is retained, that result being unintended, unrealized and unappreciated. It is a fact I am sure all will admit, that even where pleasure is the sole object in view, something more, provided the proper kind of literature is resorted to, is almost sure to follow. The boy who has a natural love for reading shows its effects in superior readiness of expression, as well as in a greater supply of ideas to express. But how great is the gain that boy has made when by a judicious hand that desultory love has been moulded into something definite, something systematic, something conscious and intelligent, so that with every page he reads, he realizes, not only passing enjoyment, but increased power over the language he speaks, and added vigour in that part of his being in virtue of which he calls himself man.

Another prevalent idea with reference to the reading of literature is that in the process no mental effort is required. Now some may derive entertainment from a perusal of literature unaccompanied by any exertion of the mind, but what kind of literature is it, and what kind of entertainment? Is the literature aught but worthless or the entertainment aught but an idle waste of time? Nay, will any one deny that it is a positive injury? “But,” some one will say, “this remark does not apply to such works as Longfellow's ‘Courtship of Miles Standish,’ and Dickens' ‘Martin Chuzzlewit’—I can pick up either of these and derive pleasure from it without exerting my mind in the least. Surely these works are not worthless or the entertainment injurious.” All I can say to such a person is that, so far at least as he is concerned, Dickens and Long-

*Published at the request of the North Huron Teachers' Association.

fellow have written in vain ; and I am sure that any one who has done himself the kindness of expending a little *thought* on the writings of these men will bear me out in what I say. No, to get the full good of literature we must study it consciously for more than pleasure ; we must study it for self-improvement, more than that we must be prepared to bestow upon it, sometimes more and sometimes less, but always some degree of mental labour.

Now, having arrived at a definite idea of what literature is, and of the emotions and feelings with which it should be studied, we are in a position to consider the rational mode of teaching it. I think I am right in premising that with reference to literature the word "teaching" should mean "showing how to study." To that might be added, "implanting the desire to continue the study long after teaching has ceased." Perhaps to no other subject does this interpretation apply with equal force. Take the limit at which the pupil may be said to be able to leave school with an ordinary education, viz : the completion of a High School course. Am I not right in saying that the pupil is supposed to have gained an adequate knowledge of Grammar, Euclid, Algebra, History, and Geography, *i.e.*, a knowledge sufficient for all the ordinary purposes of life? But will any one say that he has gained an adequate knowledge of English Literature? When he leaves the walls of the school behind him does he expect ever again to open a book on one of the first named subjects with a view to studying it? He may exhibit his knowledge of grammar in noticeable precision of speech, of euclid and algebra in accurate habits of thought. He may enjoy his knowledge of history or realize that of geography in his travels abroad. But, properly it seems to me, he regards his *study* of these subjects as at an end. What, however, would be thought of him if that were his idea with regard to literature. Should we not feel inclined to advise him to take another year at school, and if possible under another teacher? What a worthy subject for commiseration is the one who goes forth from school believing that, with the extracts prescribed for entrance to High Schools, with Goldsmith's "Traveller," "The Lady of the Lake," a play of Shakespeare and an essay of Macaulay, he has completed his studies in English Literature! Perhaps, however, I am taking an extreme and very rare case. But is there not danger in these days of cram that the teacher, bending all his energies to the mere "passing" of the pupil, may forget to point him to happy fields that lie beyond this dreaded barrier called examination? In the presence of such a danger, an extreme case may not be amiss as a warning. Even supposing that this extreme case never occurs and that no pupil

leaves school in total ignorance of those luxuriant regions of thought yet to be explored, is it not further desirable that he should distinctly realize that the glimpse he has received is but a glimpse, that he should have been made to feel the grandeur and the beauty of that glimpse, that he should have had his mental vision sharpened and his susceptibilities for pleasure refined, so that besides the mere knowing he may be fully prepared and equipped for what is before him? Is it not better that in starting out in life he should already have a love for literature than that then for the first time he should learn that such a love is possible, and grope about in the darkness perhaps to find it, perhaps not?

To sum up, the principle I am contending for is, that there are two great objects that teachers of English Literature should keep in view: first, to establish in the mind of the pupil a love for the literature of his own tongue and a determination to prosecute the study of it as long as he lives; second, and subsidiary to the first, to instruct and practise the pupil in the proper manner of pursuing this study.

In regard to the attaining of the first of these objects very little can be said. Success depends to a large extent upon the individuality of the teacher. If any precept on the subject is necessary, the only one that occurs to me is the following:—Throw enthusiasm into the methods you employ in attaining the second of these two objects, and let your pupils see that *you* have the love that you desire to impart to them. Don't preach. The force of example is all-sufficient.

And now as to the manner of studying or, what is the same thing, teaching how to study literature. I have not undertaken to write a treatise. I leave that for others better qualified. All I give here is a few brotherly suggestions based upon my own experience, feeling all the while conscious of many imperfections and omissions. In the first place, the mind is expanded and enriched in proportion as we enter into the author's meaning. As then the enriching of the mind is the highest of the objects with which literature is studied, so the discovery of the author's meaning is that part of our study that should be regarded as of most importance.

How, then, should the author's meaning be approached? In the same way, it seems to me, as one would approach the beauties of a picture: first contemplate the whole, then the parts. "What a fine picture!" first we say. Then on drawing near: "What a beautiful sky! How boldly that mountain stands out to view! How life-like that group of figures in the foreground!" Similar is the rational mode of surveying the written picture. First, the general effect and the

blending of the parts into one harmonious whole; then a more minute examination, directed to the meaning and beauty of each part, and the treatment each has received at the hands of the author. For instance, in taking a class through Thomson's "Autumn," first the whole poem should be read from beginning to end with very little comment—a question here and there to ensure that the reading is being done thoughtfully and observantly. As the whole poem cannot be read in a single lesson, the teacher should see from day to day that a distinct remembrance is being retained of what has been read before. As the different topics are passed the class should be required to name them, the designation being as concise and pointed as possible; to note where each begins and ends; and to mark the relation each bears to the others as well as the manner in which the transition from one to another is effected. This can be done rapidly in fact to be done properly it must be done rapidly. When it is done with "Autumn," the pupil will have a vivid conception that the poet has carried him through that beautiful season, presenting in exact order of succession, first the harvest with its golden fields, its merry bands of reapers and its destructive storms—then the brief season of idleness with its sports of hunting, good and bad—the gathering of the fruit, with its glowing orchards and sunny vineyards—the chill November fogs—the migration of the birds—lastly, the dying of the year with its solitary woods and rustling walks—the whole concluded with a gleam of sunshine o'er the joyous sports of Harvest Home, a glowing tribute to the rural life, and an announcement of the poet's undying love for nature.

So far we have been standing back from the poet's canvas. We may turn away but Autumn is indelibly stamped on our memory. Now let us draw near and inspect the details. Not too near, however, or the result will be a daub. And what is involved in inspecting the details? Obviously a reference to such things as the following:—The meaning of individual words and phrases—the devices by which the author secures vividness, force and beauty of expression. What, on the other hand, would be getting too near? Why, parsing every word and analysing every sentence, deriving every word whose origin and pedigree can be found in the dictionary, and looking up a whole biography in connection with every proper name, very much like picking off the paint to see what it is made of, is it not?

Grammar and Derivation both have a place in the study of literature—only, however, so far as they elucidate the meaning or contribute to the interest with which we view the manner of expressing the meaning. For instance, in the extracts that follow, how important in the one case and interesting in

the other that the student should understand the literal derivative meaning of "devolving" and "ardent":

"Devolving through the maze of eloquence a roll of periods."

and
"Half through the foliage seen, or ardent flame or shine transparent."

And now a word on figures of speech. Not long ago the ability to give accurately the names of all the figures in a passage, was accepted as proof conclusive of high literary attainments. "What is in a name?"—Evidently there was a great deal in those times. Now there can be no objection to names as *names*, i.e., convenient labels; but is not an intelligent estimate of the value and *raison d'être* of each figure, operating as a literary device for the production of an artistic effect, of far greater importance than the mere name? Let that, then, be the chief study, names being tolerated and used only for the sake of brevity of reference.

In connection with this topic of figures I would like to refer to one particular device, that to me always has a special interest. As it is of frequent occurrence in the second class literature of the present year, I deem it worthy of special mention. I refer to what is technically known as Imitative Harmony, in other words, the descriptive music of language,—a constant source of pleasure if our ears are trained to recognize it, but they require to be trained. Illustration here is unnecessary: almost any page of "The Seasons" furnish more than one example.

Oral reading is another thing that should receive attention in the teaching of literature. How entertaining is the company of one who, without being what is called an elocutionist, can by the reading of a poem or interesting story make it live to our ears and understandings! In all reason then the pupil should be trained to read for the class as though he were in possession of the only book in the room, the class thus depending entirely upon his rendering for the sense.

Paraphrasing should not be neglected. The effort necessary to express in our own words what the author has expressed in his serves two purposes: it leads to a closer examination of the meaning; and it affords practice in developing the powers of expression.

What is to be said about the life and times of the author? Obviously these, belonging as they do to biography, should be studied in connection with history, not with literature and language. To this, however, there is one reservation: of course everything in the life of the author that throws light upon his writings is a fitting subject for enquiry in a study of those writings. Likewise the influences at work in the times of the author, operating to decide the charac-

ter of his writings, and leaving marks upon them, should be studied in the endeavour to obtain a thorough comprehension of the writings.

Other things, were not my paper already too long, might deservedly be discussed. I shall simply mention some of them, perhaps others still will occur to my hearers: memorizing; the use (or rather abuse) of annotations; the cultivation of the taste by the selection of striking passages.

In conclusion I would like to refer to a question that is perhaps in the minds of some. It may possibly be asked: "Has not one a love for literature or the ability to peruse it intelligently who has not been taught the subject in school according to the peculiar manner you are advocating? We hear much about the new style of examination papers, intended to revolutionize the manner of teaching the subject throughout this Province. Will the love for literature in Ontario date only from the setting or the first of these papers or from the time when our responsive teachers began to prepare can. dates in accordance with them?" No one, I fancy, would be so foolish as to claim any such thing. The advocates of the new system of teaching children to read before they learn the alphabet, do not pretend that under the old system no one ever learnt to read. All they claim is that much wasted time on the part of the teacher and much needless suffering on the part of the pupil is by their system saved. They say, when once we have learnt to read we do not run over the letters of a word before we know what the word is, we recognize it at a glance. Then why not *learn* to read by recognizing the words at a glance? The very men who discovered this system had themselves learnt to read after many a woeful struggle with big A and little a, b-a-d bad and c-a-t cat, until by sheer dint of looking at the words (although the teacher never intended it that way) they could sing off "bad cat," without once troubling their little brains whether there were three letters or three dozen letters in each word.

Just so in the case of English Literature. Educationists are beginning to realize that the teaching of literature can and should be brought into greater conformity with the manner in which we study it in after life. What is the use of having English Literature on our school programmes at all, if in the end it is to be left to the pupil's own literary instincts, asserting themselves when he comes to years of maturer judgment, to be his sole "guide, philosopher, and friend" in this matter? Let us, in the name of all that is practical, banish English Literature, from our schools altogether, or teach it in a manner that will tell.

E. W. HAGARTY.

Mathematics.

A REMARKABLE FORMULA.

SUPPOSE we want to find two triangles whose perimeters shall be equals, the six sides rational integers, and the areas equals; the following formula, will, I think, enable us to find an unlimited number of pairs of triangles filling the specified conditions.

But before I lay down my formula, let us reflect that if we assume a set of sides, say 31, 23, 19, the area will probably show a surd; well, we will admit the surd, since we are not bound by the conditions to furnish rational areas. Now, if we want to find another triangle having an equal perimeter, and assume the sides to be 28, 24, 21, without trying, the area will very probably be different from that of the first triangle; hence, we see, that the required triangles can never be found by *assumptions*. If the triangles exist z may represent half the sum of the sides of either, since their perimeters must be equals. Then

$$z = \frac{nr^2 + ny^2 - n^2y - z^2nr}{ny + n^2r^2 - n^2 - z^2n^2}.$$

If $z=7, n=2, y=3, r=4, n=1,$

$z=23.$ Omitting denominators, we have

$39(39-35)(39-24)(39-19)=$

$39(39-29)(39-34)(39-15) =$ squares of areas,

or, $10 \times 5 \times 24 = 4 \times 15 \times 20,$ proof for areas.

The sides of one triangle are 35, 24, 19; the other 34, 29, 15. The formula is general, since we can assume any other value for the letters, consistent with the properties of triangles; but *how* these letters, their signs and indices, are found, I may not attempt to publish without the liberty of the printer.

JOHN IRELAND, Fergus.

A METHOD IN COMPOUND NUMBERS.

REQUIRED to reduce 4 bus., 1 pk., 2 qt. to pints.

I. $\begin{cases} (1.) 1 \text{ bush.} = 4 \text{ pk.} \\ (2.) 4 \text{ bush.} = 4 \times 4 \text{ pk.} = 16 \text{ pk.} \\ (3.) 16 \text{ pk.} + 1 \text{ pk.} = 17 \text{ pk.} \end{cases}$

II. $\begin{cases} (1.) 1 \text{ pk.} = 8 \text{ qt.} \\ (2.) 17 \text{ pk.} = 17 \times 8 \text{ qt.} = 136 \text{ qt.} \\ (3.) 136 \text{ qt.} + 2 \text{ qt.} = 138 \text{ qt.} \end{cases}$

III. $\begin{cases} (1.) 1 \text{ qt.} = 2 \text{ pt.} \\ (2.) 138 \text{ qt.} = 138 \times 2 \text{ pt.} = 276 \text{ pt.} \end{cases}$

Reduce 384 pt. to bushels.

I. $\begin{cases} (1.) 2 \text{ pt.} = 1 \text{ qt.} \\ (2.) 1 \text{ qt.} = \frac{1}{2} \text{ qt.} \\ (3.) 384 \text{ pt.} = 384 \times \frac{1}{2} \text{ qt.} = 192 \text{ qt.} \end{cases}$

II. $\begin{cases} (1.) 8 \text{ qt.} = 1 \text{ pk.} \\ (2.) 1 \text{ qt.} = \frac{1}{8} \text{ pk.} \\ (3.) 192 \text{ qt.} = 192 \times \frac{1}{8} \text{ pk.} = 24 \text{ pk.} \end{cases}$

(1.) 4 pk. = 1 bus.

(2.) 1 pk. = $\frac{1}{4}$ bus.

(3.) 24 pk. = $24 \times \frac{1}{4}$ bus. = 6 bus.

—F. M. Wallace, in the New York School Journal.

TORONTO:

THURSDAY, FEBRUARY 10, 1887.

SCHOOL VENTILATION.

THIS is a matter of such vital importance that we are tempted to give in full the Chatham *Planet's* description of the method of ventilating the new collegiate institute in that town:—

"In the basement is a large fresh air room, receiving its supply wholly from the outside, in which are four large furnaces, each 10½ ft. long, and weighing 12 tons, and which are enclosed in brick work. The air which passes through and is warmed by these furnaces, enters large warm air brick flues conveying it to the different rooms through register faces placed in the side walls near the floor. Over these registers are regulators operating iron valves in the flues by which the pupils or the teachers can regulate the supply of warm or fresh air by simply turning a crank to the right or left, or by the same means a mixture of airs of any temperature can be obtained. This gives continuous ventilation for the reason that the supply of air cannot be closed off. The warm and pure air entering the room ascends to the ceiling and presses down and out the heavier and impure air which passes through iron ventilating bases placed at the floor into air spaces under it. This air from the first, second and third stories, passing along warm the floors and is conveyed downwards by the suction of the ventilating shafts into the foul air gathering rooms which are in the basement and from whence it passes through the foul air ducts under the closet seats, drying the excreta, and is carried out and rushes up the ventilating shafts high over the roof. In the base of each ventilating shaft is a small heater, which may be used in damp days in summer time. By this means all the rooms can be ventilated and the circulation necessary thereto kept up at all times. The general principle of the system is that there is a continuous and complete change of air going on in the building, which is at the same time uniformly heated—a problem never before satisfactorily solved. It is especially adapted for large public buildings, and is being introduced generally with great success throughout America. The lecture hall, on the evening of the opening day, which contained a large audience, was pronounced to be thoroughly comfortable and perfectly ventilated."

PROF. E. L. YOUMANS.

PROFESSOR E. L. YOUMANS, the well-known writer on scientific subjects and one of the editors of the *Popular Science Monthly*, who died on the 18th ult. at his house, 247 Fifth avenue, New York, had been ill for nearly a year, and was aware that he had not long to live; but he remained at his work until he was forced to stop from sheer exhaustion. He was born in Albany county, New York, in 1821. During his infancy his parents removed to Saratoga, where he resided for many years. Early in his life he contracted a disease of the eyes, which caused him the loss of sight, and left him with imperfect vision. This made collegiate education impossible. He early took an interest in science and delighted in having scientific books read to him. Chemistry became his favourite study and its principles were learned through the aid of his sister, Miss Eliza A. Youmans, who performed the experiments. This lady is widely known as an authoress on botany. By the aid of a machine which he devised, and the partial recovery of sight, he wrote the "Class Book of Chemistry" for common schools, which was published in 1852. After this he lectured extensively and successfully before lyceums, and was perhaps the first to popularize the new doctrines of the conservation and correlation of forces, upon which he subsequently compiled a book. Mr. Youmans' interest in scientific culture and in the diffusion of the advanced philosophical ideas of the age has had noteworthy results. He early exerted himself for the reproduction in the United States of the works of Spencer, Darwin, Mill, Bain, Huxley, Lecky, Tyndall, Maudsley, Carpenter, and other eminent thinkers. He succeeded in affecting an arrangement with the American publishers with whom he was associated to pay foreign authors as American authors are paid. In 1871-72 Mr. Youmans became much interested in the question of international copyright, and went abroad to organize the "International Scientific Series," on the basis of a simultaneous publication in different countries of scientific books, for which equitable payment should be made to the authors.

OUR EXCHANGES.

THE numbers of *The Living Age* for January 22nd and 29th contain, "The Aurora Borealis," *Edinburgh*; "Locksley Hall, and the Jubilee by

Mr. Gladstone," *Nineteenth Century*; "Emin Bey, Gordon's Lieutenant," *Fortnightly*; "Lady Duff Gordon," "The Philosopher's Widow," and "A Plea For an Old Friend," *Temple Bar*; "The Letters of Charles Lamb," and "Sunderland and Sacharissa," *Macmillan*; "Convicts in Parliament," *Time*; "Incidents of Rent-Collection in Ireland," *Chambers*; "Irish Characteristics," *Spectator*; "South-Italian Courtship," *Saturday Review*; "The Caravansari in Persia," *St. James's*; "Foreign Ministers and Foreign Languages," *London Times*; with instalments of "A Secret Inheritance," and "Major and Minor," and poetry.

PROF. WILLIAM JAMES, of Harvard College, occupies the first place in the *Popular Science Monthly* for February, with a readable paper on "The Laws of Habit." The article gives a clear explanation, on physiological grounds of the way in which habits come to involve all the functions of the organism, growing with its growth, and hardening into permanency as it matures, and commends itself to the attention of youth and of those who have the care of the young. Of great interest, also, is the discussion on "Materialism and Morality," and "Science and Morals," in papers by Mr. W. S. Lilly and Professor Huxley. Mr. Lilly, a Roman Catholic of devout orthodoxy, charges the scientific evolutionists with teaching a gross materialism, and maintains that their principles do not afford a sufficient foundation for morals. Professor Huxley replies to both counts of the indictment with all his accustomed clearness and vigour. Concluding his paper on "Science in Religious Education," Mr. Daniel Greenleaf Thompson defines what he conceives to be the scientific position regarding the teaching of religious truths in schools and seminaries. An illustrated paper, entitled "The South-African Diamond Mines," furnishes full information on all the ordinary aspects of the subject, prepared from official documents. Mr. Bruce's "Some Points on the Land Question" embodies one of the clearest and most logical expositions of the principles on which the right to own land is vindicated, that has been made. Mr. George Pellew, in "Fetichism, or Anthropomorphism," reviews the position respecting the origin of fetich-worship which was declared by Mr. Spencer in his controversy with Mr. Frederic Harrison. Mr. Frank P. Crandon, in his concluding article on the "Misgovernment of Great Cities," expresses the belief that good government is possible for cities, and essays an outline of the way it is to be obtained. Mr. George P. Merrill gives an interesting illustrated article on "Fulgurites," or the glazed holes which lightning sometimes makes where it penetrates the earth. In "Views of Life in the Crazy Mountains," Mrs. E. D. W. Hatch gives lively glimpses of what is going on among the animals and plants of that curiously named region. A paper on "Massage," by Lady John Manners, is of practical and hygienic value. A sketch and portrait are given of Dr. C. C. Abbott, the keen-eyed naturalist and archaeologist, author of "Upland and Meadow." The subject considered in the "Editor's Table" is that of "Prophets of Evil," by which are meant those persons who predict that the world will go to ruin if Mr. Darwin's or Mr. Spencer's teachings prevail.

REVIEWS AND NOTICES OF BOOKS.

A NEW novel from the pen of "The Duchess" (Mrs. Margaret Angles-Hungerford) is promised, which, it is said, will bear a close resemblance to the author's "Phyllis."

MACMILLAN & CO. have just issued Hallam Tennyson's "Jack and the Beanstalk," told in hexameters, and illustrated by Randolph Caldecott—his last work before his untimely end.

LATHROP & CO. have just published in the "Spartan Series" "Faith and Action," selections from the writings of Rev. F. D. Maurice, with an introduction by Rev. Phillip Brooks, D. D.

THE new *Murray's Magazine* has made its appearance in London, opening with a chapter of "Byroniana" and closing with the first of a series of papers on "General Grant" by Matthew Arnold.

"WORCESTER'S UNABRIDGED DICTIONARY" has recently been enlarged by the addition of a new pronouncing biographical dictionary, containing nearly twelve thousand names, and a new pronouncing gazetteer of the world, enumerating and locating over twenty thousand places.

EDMUND GOSSE is a busy worker, ever assuming some new burden of labour. The latest announcement concerning him is of his purpose to write for the *Independent* during the coming year a series of papers of "Gossip in a Library," devoted more particularly to out-of-the-way information concerning rare books, of which he has been a life-long collector.

WE think that, while Professor Dowden hardly dwells enough on the poorer side of Shelley's moral nature, nevertheless he is quite right in finding a real improvement in Shelley, instead of a falling-off, as he grew older. His caprice was less serious, his generosity soberer and more thoughtful, his political enthusiasms less windy and bombastic, his nature less irreverent, his forbearance more constant; his sympathy less relaxed and more self-controlled.—*Spectator*.

MESSRS. C. H. KERR & CO., of Chicago, have published a little pamphlet (sold for 25 cents), containing "The Legend of Hamlet, Prince of Denmark," as found in the works of Saxo Grammaticus and other writers of the 12th century. It is by Mr. George P. Hansen, late U.S. Consul at Elsinore, where (as also at Copenhagen) he had access to public records and rare manuscripts, and collected the material on which the *brochure* is based. It gives many facts not within the reach of ordinary readers in any cheap form. It is also to be had in cloth binding for half a dollar.

THE *Literary World* recommends the following as "helpful books treating of books and reading":—Botta's "Handbook of Universal Literature": Osgood, \$2.50; Hamerton's "The Intellectual Life": Roberts Bros.; Porter's "Books and Reading": Scribner, \$2.00; Ruskin's "Sesame and Lilies": Wiley, \$1.50; Abbott's "Hints for Home Reading": Putnam, 75c.; Atkinson's "On the Right Use of Books": Roberts, 50c.; Legouvé's "Reading as a Fine Art": Roberts, 50c.; Richardson's "Choice of Books": Am. Book Exchange, 5c.; Thwing's "The Reading of Books": Lee & Shepard, \$1.25.

MR. DOWDEN has given us such a picture of the man (Shelley) as for fidelity, literalness, and fulness of detail may never again be equalled. He has done everything for Shelley that industry, insight, faithfulness, and loyalty could do. But the total effect produced is not invigorating to the latter part of our sympathies. The man who is now revealed to us from top to toe, may have been a great poet, but he was not a great man. He was not only not a moral man according to the laws of England; but he was not a moral man according to the laws of nature.—*T. Hall Caine, in the Academy*.

"LET us pity those poor rich men," says the *U.S. Paper Maker*, "who live barrenly in great bookless houses. Let us congratulate the poor, that in our day books are so cheap that a man may every year add a hundred volumes to his library for the low price of what his tobacco and beer would cost him. Among the earliest ambition to be excited in clerks, workmen, journeymen, and indeed, among all that are struggling up in life from nothing to something, is that of owning, and constantly adding to, a library of good books. A little library, growing larger every year, is an honourable part of a young man's history. It is a man's duty to buy books. A library is not a luxury, but one of the necessities of life."

"MRS. STOWE not long since," says the *N. Y. Times*, "received a letter from Mr. Gladstone, who had been reading 'The Minister's Wooing' for the first time. He had long intended to read it, but had found the opportunity only a month or two before. 'It was only then,' he says, 'that I acquired a personal acquaintance with the beautiful and noble picture of Puritan life which in that work you have exhibited upon a pattern felicitous beyond example, so far as my knowledge goes. I really know not, among four or five of the characters (though I suppose Mary ought to be preferred as being nearest to the image of our Saviour) to which to give the crown. But under all circumstances and apart from the greatest claims I must reserve a little corner of admiration for Cerithy Ann.'"

THE prophet of the new "Locksley Hall" records against us many sad, and even shameful defaults. They are not to be denied, and the list probably might be lengthened. The youngest among us will not see the day in which new social problems will have ceased to spring as from the depths, and vex even the most successful solvers of the old; or in which this proud and great English nation will not have cause, in its ranks and orders, to bow its head before the Judge Eternal, and humbly to confess to forgotten duties or wasted and neglected opportunities. It is well to be reminded, and in tones such as make the deaf man hear, of city children who "soak and blacken soul and sense in city slime;" of maidens cast by thousands on the street; of the seamstress scrimped of her daily bread; of dwellings miserably crowded; of fever as the result; even of "incest in the warrens of the poor." On the last-named item, and the group of ideas therewith associated, scarcely suited for discussion here, I am not sure that the warrens of the poor have more to fear from a rigid investigation than other and more spacious habitations.—*Mr. Gladstone, in Nineteenth Century*.

WALT WHITMAN contributes to *Lippincott* for January a short article entitled "My Book and I," which, says the *N. Y. Times* will interest every one who is interested in the "Leaves of Grass" or its author. Here, for example, is a paragraph:—"Result of seven or eight stages and struggles extending through nearly thirty years, I look upon 'Leaves of Grass,' now finished to the end of its opportunities and powers, as my definite *carte visite* to the coming generations of the New World, if I may assume to say so. That I have not gained the acceptance of my own time, but have fallen back on fond dreams of the future ('Still lives the song, though Regnar dies'), that from a worldly and business point of view 'Leaves of Grass' has been worse than a failure, that after thirty years of trial public criticism on the book and myself as author of it shows marked anger and contempt more than anything else ('I find a solid line of enemies to you everywhere.' Letter from W. S. K., Boston, May 28, 1884), and that solely for publishing it I have been the object of two or three pretty serious social buffetings, is all probably no more than I ought to have expected. I had my choice when I commenced. I bid neither for soft eulogies, big money returns, nor the approbation of existing schools and conventions. As fulfilled, or partially fulfilled, the best comfort of the whole business (after a small band of the dearest friends and upholders ever vouchsafed to man or cause, doubtless all the more faithful and uncompromising, this little phalanx! for being so few) is that, unstopped and unwarped by any influence outside the soul within me, I have had my say entirely my own way, and put it unerringly on record, the value thereof to be decided by time." And here is another:—"Given the nineteenth century, with the United States and what they furnish as areas and points of view, 'Leaves of Grass' is, or seeks to be, simply a faithful and doubtless self-willed record. In the midst of all it gives one man's, the author's, identity, ardours, observations, faiths and thoughts, coloured hardly at all with any colouring from other faiths, other authors, other identities or times. Plenty of songs had been sung, beautiful, matchless songs, adjusted to other lands than these, other days, another spirit and stage of civilization; but I would sing and leave out or put in, solely with reference to myself and America and to-day. Modern science and democracy seemed to be throwing out their challenge to poetry to put them in its statements in contradistinction to the songs and myths of the past. As I see it now (perhaps too late) I have unwittingly taken up that challenge and made an attempt at such statements, which I certainly would not assume to do now, knowing more clearly what it means."

BOOKS RECEIVED.

The Library Magazine. Feb. 2nd, 1887. New York, Chicago and Toronto: J. B. Alden.

Presumption of Brains. By A. P. Marble, Supt. of Schools, Worcester, Mass. 3 Somerset street, Boston, Mass.: New England Publishing Co. Price 10 cents.

Mathematical Teaching and Its Modern Methods. By Truman Henry Safford, Ph.D., Field Memorial Professor of Astronomy in Williams College. Boston: D. C. Heath & Co., publishers. 1887. 47 pp. 25 cents.

Methods and Illustrations

EXERCISES IN ENGLISH.

COMBINE the elements in each number, so as to form a single sentence:—

1. The undertaker groped his way cautiously through the dark passage.

The undertaker bade Oliver to keep close to him.

The undertaker bade Oliver not to be afraid.

The undertaker mounted to the top of the first flight of stairs.

2. My large tent was soon pitched on the rolling sands.

It was pitched near the seventeen wells. It was surrounded by date-palms.

It was surrounded by tamarisks.

These wells are called the "Wells of Moses."

3. We deposited the gentlemen on the Asiatic side.

Then we sailed down the gulf.

We sailed for nearly two hours.

4. I was about a mile from Ain Musa. I saw a large Arab caravan. There were a number of armed Bedaween with the caravan. The caravan was encamped round the wells. I therefore sat down. I waited for my escort.

5. The board were sitting in solemn conclave. Mr. Bumble rushed into the room. He was greatly excited. He addressed the gentleman in the high chair. He said, "Mr. Limbkins, I beg your pardon, sir! Oliver Twist has asked for more."

6. The nurse drank once more out of the green bottle. She then sat down on a low chair. The chair was before the fire. She proceeded to dress the infant.

7. The adventurers returned to France the next year. They carried off one of the kings with them. This gave great grief to his subjects.

8. They found Hochelaga. I was a fortified town. It was situated among rich corn-field. It was situated on an island. This island was under the shade of a mountain. The mountain they called Mount Royal.

9. The light-footed Highlanders were foremost of all. They dashed along in furious pursuit. They hewed down the Frenchmen with their broadswords. They slew many in the very ditch of the fortifications.

10. New Westminster is the capital of British Columbia. It stands on the bank of the Fraser River. It is about fifteen miles from its mouth.

11. The colony contained about five thousand souls. This was at the time of which we write. It extended upwards of fifty miles along the Red and Assiniboine Rivers. These streams supplied the settlers with a variety of excellent fish.

A. M. B.

MEASURE IN LENGTH OR DISTANCE.

THE teacher should be supplied with a foot-rule, a yard-stick, and a piece of tape at least a rod long and accurately divided into feet. Each pupil should be supplied with a foot-rule, or with a narrow strip of strong paper one foot in length and plainly divided into inches. Hold up two objects of nearly the same length, and make the pupils judge which is the longer.

Draw two lines on the blackboard of different lengths and in different positions, and make pupils judge which is the longer. Test by measuring with a rule. Draw horizontal, vertical, and oblique lines on the blackboard and make pupils estimate their length and then measure with a rule. Make pupils draw lines of certain lengths.

Tell them to estimate the length and width of panes of glass, of slates, books, also of table, blackboard, platform, sides of room, etc., and then test by applying the rule. The rod measure may be introduced in measuring the school-yard, and width of street. This is a foot-rule: "How long is it?" "How many inches long is it?" Here is a line twenty-four inches long: "How many feet long is it?" Here is a string one yard long: "If I cut it into pieces each one foot long, how many pieces will it make?" "How many feet make a yard?" Here is a board 9 feet long: "What is its length in yards?" "How many feet in a ribbon four yards long?"—*New York School Journal*.

PROFESSOR GILDERSLEEVE ON THE STUDY OF SYNTAX.

THE formula of my own work for beginners has been for years: "Maximum of Forms, Minimum of Syntax, Early Contact with the Language in Mass." When the young student has to learn in syntax is the necessary differentiation of Latin and Greek from the native tongue. When the form carries the syntax, syntax is needless. When the two horses run side by side, the beginner should be content to ride behind them, and not attempt to ride astride them. That feat should be reserved for a later period of syntactical equestrianism. So, for instance, with the general freedom of participle in English and participle in Greek the study of the latter belongs to style rather than grammar proper, and apart from the ascertainment of these principles that simplify the acquisition and the handling of the language, the great attraction of syntactical research in Greek lies in the artistic beauty that it reveals. If syntax is not to be made available for the appreciation of form, we need much less of it than we have in our grammars; if it is, as I believe, a potent factor, and, what is more, a measurable factor in style, we know far too little of it; and while the gain from the close study of synonyms

will, I grant, be incalculable, still the results of syntactical research for a like delicate appreciation of idiom are sufficient to encourage the hope that I have more than once expressed,—that all syntax may become a *syntaxis ornata*, and that the minute statistic by which we try to replace the effect of native contact with the language may be tributary to the artistic appreciation of the most artistic of literatures,—a literature that has been fashioned by processes of which critics of modern written art are but just becoming dimly conscious.—*American Journal of Philology*.

EDUCATION vs. SCHOOL ROUTINE.

If there is anything the teacher should pray to be delivered from, it is the confounding of education with school routine. Not as bad as this is the confounding of scholarship with mental development—but that, too, is bad. But routinism not only does not effect education, it actually hinders it. The teacher must wage a constant battle with what many consider the end. Hawthorne describes the railroad to heaven very charmingly; he tells about the stations, the engineers, and all that. The only trouble was that they could not get a depot in heaven, and so it was not certain the passengers ever arrived there. It was all good except this one point. Routinism makes a gathering of pupils beautiful to the eye; there are books, recitations and all that, but it is by no means certain that the pupils are educated.

We visited a routine teacher's school once. We found her a little late that morning. She entered in haste, in a few minutes threw off her hat and called, "First class in reading, take your seats." Then seeing there was a visitor, paused, and gave him a rather ungracious welcome. We begged her to go right on, and she did. The impression left on our mind was the same as when a company of soldiers is drilled. It was no new thing. The teacher had made the same remarks before, and probably a good many times. "You read too fast," or "You read too slow," or "You didn't read loud enough." "Spell distance, benefit, cordial, etc." And finally ended up with, "Take the next six verses, you are excused." And the other exercises were of the same nature.

It seemed to us that the teacher had not prepared for meeting her class; it was an old story—it was simply hearing recitations. Now a teacher who comes to school feeling that a routine of things is to be gone through with before she is free, is all wrong. She belongs to those pupils—soul and body—for a certain period of the day, and the rest of the time she must prepare for that meeting, that encounter; she may put the exercises that she will have into a fixed form—this is not routinism. It is not the routine that educates, it is the teacher. She must generate power, train habits, and cultivate tastes. But routinism does not do this, it prevents it.—*The New Brunswick Journal of Education*.

Educational Intelligence.

DUNDAS SCHOOL BOARD.

AT the last meeting of the Dundas old Board, Mr. J. A. Hill, public school headmaster, petitioned for benches for the blackboards, which were too high for pupils to reach.

Mr. Bissonnette, high school headmaster, stated that the rooms in his charge were very full this term, with a prospect of an increased attendance. Mr. Hill made the same complaint in regard to the public schools, stating that some rooms had more scholars than seating accommodation. No definite action was taken in the matter although it seemed to be the opinion that another room and teacher in the public school is necessary. More seating accommodation will have to be provided in the high school also.

Mr. Marshall, the new assistant master of the high school, was heard by the board, he having failed to pass the late examination in the Hamilton Training Institute, and consequently not possessing the proper qualifications for a high school teacher.

Mr. Bell spoke in high terms of Mr. Graham as chairman for the past year, and moved that the thanks of the board be tendered Mr. Graham for his efficient services. Dr. Laing seconded the motion, which was unanimously carried. Mr. Graham made a suitable reply.

THE NEW TRENTON HIGH SCHOOL.

THE formal opening of the new high school, Trenton, took place on Friday evening, January 21st. The fact of the large number being present was sufficient evidence of the interest taken in the High School by the people of Trenton. The large Assembly Hall was crowded, while many were forced to stand at the entrances.

Mr. Cornwell, chairman of the Board of Education, was called to the chair, and opened the evening's entertainment with a few suitable remarks. The programme consisted of music, recitations and speeches.

All spoke of the prosperous state of the High School, of the necessity of engaging an additional teacher, and of the prospect of making the High School a collegiate institute.

MR. RIX is teaching successfully at Hobart.

MR. D. A. WILLIAMS is the new master at Raglan School.

MR. R. A. THOMPSON, has charge of Hampton school for the winter.

NEWCASTLE schools have the same staff of teachers as last year.

IN S.S. No. 1, Camden, Mr. McLaren, of Ridgetown, is the teacher.

MR. W. N. THILEY began his duties in S.S. No. 4, Courtice, on the 3rd ult.

ARCH. McVICAR has been re-engaged in S.S. No. 5, Lobo, at a salary of \$525.

MR. J. B. POWLES has opened the Palestine School this year with a good attendance.

THE public schools have been closed in Paisley on account of the prevalence of diphtheria.

A YOUNG lady from Muirkirk has been engaged for eight months to teach the Point Pelee School.

MISS ROBB has been re-engaged as Principal and Miss Mossup as assistant in S.S. No. 3, Lobo.

A LONG discussion on the Scripture selections took place at the last meeting of the Orillia School Board.

THE attendance at the Dundalk Public School has somewhat declined of late on account of the mumps.

MISS MARY BELL, teacher of the Nilstown School, closes her engagement with the school on March 1.

MR. GALBRAITH, assistant teacher in Streetsville High School, has taken up his residence in Brampton.

MISS McNAUGHTON and Miss Wilkinson, of Newcastle, have had their salaries raised by the sum of \$50.

MISS MADDEN, of Port Perry, has been appointed to the junior department of the Sunderland School.

AT a recent public examination held in S.S. 5, Sandwich West, two silver medals were given by the teacher.

MISS FOSTER, of the 5th concession, Mersea, is now teaching in the school on the 9th concession of Goshfield.

MR. JAMES MARTIN of Portage la Prairie, has been engaged to take charge of the Edmonton Public School.

MISS MARY McAULIFFE, on leaving S.S. 5, Sandwich West, was presented with an address by a number of her pupils.

MR. SINCLAIR, school teacher at Rockwood, has been compelled to give up teaching for a short time, owing to ill health.

MR. J. S. CARSON, Inspector of Public Schools, Div. No. 1, Middlesex, has recently been seriously ill, but is now recovering.

MR. C. SHAW has successfully completed his Normal School course, and is now head master of Tupperville Public School.

THERE were more than a hundred teachers at the meeting of the South York Teachers' Association, held recently at Parkdale.

MISS MCKAY, who taught the school at Thamesford the year before last, has gone to Ottawa to attend the Normal School there.

FATHER NOLAN, of the College of Ottawa, delivered a lecture before the students of that institution in the college hall lately.

MISS ANNIE SHEA, of London, has been engaged as senior teacher of Pike Creek Village School, at a salary of \$450 per annum.

MR. CHADWICK has resigned the principalship of the Stratford Public Schools to take the inspectorship of a life insurance company.

THE question of having a High School established in Bracebridge, was talked over at a recent meeting of the Bracebridge School Board.

THE last meeting of the Cannington School Board was chiefly taken up with the discussion of whether or not a boy had been too severely punished.

THE new teacher of Walker's School, Mr. Sinclair, has been detained from duty on account of having the measles, and the school has not yet commenced.

MR. CHARLES GARTHRITE'S services as principal of the Burgessville School, have been secured for another year. Miss Palmer, assistant teacher, is also engaged for this year.

THE Trustees of the Baie Vert School District No. 2, Moncton, N. B., have secured the services of M. A. Wall, a teacher of the first class, who entered upon his duties on the 3rd ult.

IN connexion with the Ottawa Separate Schools it is proposed to erect in a central locality a high school, where pupils from the primary schools can finish their common school education.

MISS LOCHHEAD, teacher at Heaverton, at the close of the school before the holidays, was presented with a number of handsome presents by the pupils of the junior division of the school.

IN S.S. No. 1, Dawn, the same set of trustees, teacher, sec.-treas., auditors and caretaker, that held office last year, are all re-appointed to occupy their respective positions for the present one.

MASTER PETER ANDERSON successfully passed the examination for the high school, and took his place at that institution. This is the first coloured boy in London who ever sat there.—*Free Press*.

THE Tiverton School Board has engaged Mr. W. J. Arnott, of Sunnidale, as principal, while Miss M. J. McKenzie, and Miss J. Dewar are re-engaged for the 2nd and 3rd departments, respectively.

AT the close of the recent examination at the Sandringham School, the pupils presented their teacher, Mr. Silas Smith, with a handsome gold watch, chain and gold ring, accompanied by an address.

THE trustees of the Evanville School, Mara, have re-engaged Miss Bell Marluchat an advanced salary. She was also made the recipient of a handsome plush album, accompanied by an address.

PRINCIPAL MACCABE, of the Ottawa Normal School, intends making several alterations in the institution, for the comfort and convenience of the students. One or two new class-rooms will be fitted up.

THE trustees of S.S. No. 3, March, have as yet received no answers to their advertisement for a teacher to conduct their school for the present year, according to a recent issue of the *Ottawa Free Press*.

MISS EMMA DAVERNE, who has been a teacher for the last eighteen months in the Belleville Separate School, has resigned to accept a position as first assistant in the Separate School of the city of Ottawa.

THE forms and desks were moved into the school-house yesterday, and the stoves are to be put in to-day. The school will re-open some day next week, says the *Vancouver (B. C.) News* of the 20th ult.

THE trustees of the Cottam School and the street school, Amherstburg, have failed to come to a settlement in the division of the school house and the property, so the arbitrators will be called upon to settle the difficulty for them.

SCHOOL Section No. 1 of Brantford Township has been closed for a time owing to the prevalence of mumps among the children. It is reported that eight or ten children in that vicinity are ill from the effects of the epidemic.

INGERSOLL Public Schools will this year be taught by Principal Mr. H. F. McDiarmid, assisted by Messrs. Hudson, Poole Graham, Baxter, E. A. Crawford, Barr, Stimson, Nichol, McNeil, McDonald, and J. Crawford.

MR. T. C. O'CONNOR, who was the master of the Seaton Village Public School, fell dead in the bath room of the Richardson House, Toronto, about three o'clock on Thursday morning, January 27th. He had been ailing for several days.

A SURPRISE recently awaited Mr. Wilson Taylor, Mathematical Master of the Collegiate Institute, Woodstock, when he was presented with a costly and handsome set of silverware by the scholars of King Street Methodist Sabbath School.

THE following is the staff of the Collingwood Collegiate Institute for 1887:—William Williams, B.A., principal; J. H. Brethour, B.A., Classics; J. L. Cox, B.A., Mathematics; W. H. Stevens, B.A., Science; T. H. Mc. Guirl, B.A., Commercial.

MR. WM. PETRIE, son of Mr. A. Petrie, principal of the Elora Public Schools, has taken charge of the school in No. 6, West Garafraxa, for 1887, at a salary of \$350. This is the same school in which his father commenced his career as a teacher 23 years ago.

DURING the last year the taxpayers of N. Y. State paid as wages \$9,102,286 to teachers in the public schools, or at the rate of nearly \$9 for each pupil in attendance. Of the teachers who received the \$9,102,286 there were 5,952 males and 25,373 females.

ON 28th Dec'r last, Mr. W. J. Stone, teacher at Nogey Creek school, received the present of a beautiful Bible, given to him by the members of his night class. Mr. Stone has been re-engaged to teach the same school for 1887, at an advance on his former salary.

JAMES E. GLENN has been re-engaged in S.S. No. 13, Ameliasburgh. This makes the eleventh year of his teaching in that school section. At the late municipal elections he was re-elected by a majority of 200 1st deputy reeve of the township of Ameliasburgh for the year 1887.

DR. J. GEORGE HODGINS has issued circulars to the various county inspectors of public schools, asking for the necessary information about the schools in their various inspectorates, to enable him to forward it to the bureau of education in connection with the New Orleans exposition.

INSPECTOR SMIRLE has been called out to S.S. No. 1, Fairholton, to settle a dispute between a teacher and some of the school trustees of that section. An indignation meeting was held at the school in question a short time ago, when both parties agreed to leave the matter to the Inspector.

AT the last meeting of the Shelbourne School Board Mr. C. H. Bailie moved, seconded by Mr. G. Patterson, that the teachers of the Public School be instructed to use the Holy Bible for daily scripture reading, and to make the pupils recite the Ten Commandments at least once a week—carried.

PROGRESS on the St. George's Ward, Ottawa, Primary School has been slow but satisfactory. The slowness has not been the fault of the contractor, but entirely due to the more than ordinary bad winter for outside building. The recent stormy weather materially interfered with the progress of the work.

THE trustees of the Public School Board at Wallaceburg have awarded the contracts for the new school, plans for which were prepared by Mr. Thomas Rutley, to Messrs. Martin & Co., Wallaceburg. It will cost \$11,700. When completed it will be the first and most comfortable school in the county of Kent.

IT has been decided that the four volumes donated by Colin Livingston as prizes to the Portland, N. B., schools, shall be awarded to pupils in grades 7, 8, 9 and 10 of all the schools. The prizes will be awarded to the successful pupils at the mid-summer examinations. The four volumes consist of Paradise Lost, Doré's Gallery, Dante's Inferno, and Dante's Purgatorio and Paradiso.

THE following candidates for teacher's certificates were examined at Regina recently, under the supervision of Mr. Thos. Grover, Inspector: For second class, Miss Martha Kerr, Regina; for third class, Miss Isabella Kerr and Miss E. A. F. Boulding, Regina; Miss Roxy Alexander and Miss Porter, Moose Jaw; Miss Esther Fallis, Edgeley Farm; Miss Sadie and Miss Lottie Cowan, Craven.

MR. JOHN MCLEAN, who has taught in St. George Township for nearly thirty years, was the other night presented with an elegant silver tea service by his many friends. The presentation was accompanied by a complimentary address and congratulatory speeches were made by Messrs. W. B. Wood, M.P.P.; S. G. Kitchen, S. German, J. Miller, G. M. McLaughlin, R. Turnbull and Rev. Mr. Clark.

AT the last meeting of the Amherstburg School Board it was moved by Mr. Smith, seconded by Mr. Auld, that Miss Harrison be allowed leave of absence to attend college to study for a first class certificate, on her furnishing a satisfactory certificate to the board—carried. It was also moved by Mr. Elliott, seconded by Mr. Smith, that the Secretary be instructed to enter into an agreement with Miss M. Lee, as teacher of Junior Division at a salary of \$250—carried.

MISS B. MURDOCK, teacher in section 9, Mara, held a public examination on Friday, the 14th ult. There was a very good attendance, notwithstanding the inclemency of the weather. The cause of the examination not being held at the close of last year, was the delay in the arrival of the prizes to be presented to the pupils by the teacher. There were over seventy books (being the result of a concert) given for general proficiency, also three fancy inkstands for regular attendance.

AT the last meeting of the Whitby Board of Education, on motion Miss Edith C. Thompson was appointed teacher of the primary division of the model school at a salary of \$200 per annum. On motion Mr. James White, B.A., was appointed fifth master in the Collegiate Institute till mid-summer, at a salary of \$300 for that length of time. The question of getting more seats for the Model School was referred to the committee on school property.

AT Amherstburg Public Schools, Mr. Verney and Miss Harrison retain control of the two senior departments of the Richmond Street School; Miss Minnie Powell succeeds Miss McDougall in charge of the third department, and Miss Maggie Lee, of Kingsville, takes charge of the primary department in succession to Miss Johnston, who did not return as arranged before the vacation, but accepted an appointment in Ingersoll. Mr. Alexander continues in charge of the King Street School.

SOME excitement was occasioned at the North Ward School House on Thursday, January 20th. The probabilities being that the weather would be mild a rousing fire was made on in the furnace. The brick covering became heated and ignited some beams overhead and communicated with the register. Fortunately the fire was noticed before it had made headway, and was put out with water and liberal doses of snow. Precaution will have to be taken to prevent a repetition of the occurrence.

AT the last meeting of the Stratford School Trustees, the management committee reported that Miss Macdonald had resigned her position on the teaching staff, which had involved several promotions among the teachers. They also recommend an increase of accommodation in Romeo ward, by the addition of another storey to the present building, and the addition of a four-roomed building in front. The report was adopted. It was resolved to increase Miss Tretheway's salary by \$25. Miss Maud Patterson applied for a position on the teaching staff.

THE following resolution was adopted by the County Huron Board of Examiners:—*Resolved*, That Mr. J. C. Harstone, B.A., Head Master of Seaforth High School, having resigned his position, and being about to remove from the county, this Board take this opportunity of bearing testimony to the efficiency, diligence and courtesy which have always characterized him as a member thereof; that in parting with him the Board wishes him the success which his energy, and kind and genial manner so well merit, and that the Secretary be instructed to forward a copy of this resolution to Mr. Harstone. Carried.

THE first meeting of Brussels School Board for 1887 was held on the 17th ult. A list of those who did not comply with the law during the year 1886 was laid before the Board. It was moved by Harry Dennis, seconded by John Hargreaves, that the Secretary be instructed to notify the parents or guardians of those children to attend the next meeting of this Board to show cause why they did not attend according to law.—*Carried*. Moved by H. Dennis, seconded by T. Fletcher, that a committee consisting of Mrs. Smith, Rev. J. Ross and Jno. Hargreaves, ascertain the subjects taught in school, and report at next meeting. Carried.

AT a recent meeting of the Whitby Board of Education, Mr. G. Y. Smith brought in a long report from the Committee on School Management stating they had considered the proposals of the teachers in a recent communication to the Board, and recommending the following as the standing conditions upon which teachers be engaged in future:—One month's salary to be retained from all teachers till they shall have served

a year; this to apply to teachers who have not yet put in a full year; notice to leave to be given by either the Board or the teacher any time before the July or November meeting. The report was adopted.

THE new Durham Board met on Jan. 17. Moved by Mr. Anderson, seconded by Mr. Johnston, that the board get 400 monthly reports printed, as suggested by Mr. Wherry.—Carried. Moved by Mr. Anderson, seconded by Mr. Johnston, that the board supply pen-holders and ink, for all the pupils.—Carried. Moved by Mr. Gray, seconded by Mr. McKenzie, that outside committee be instructed to ascertain the cost of procuring and fixing a bell on the school building, and report at next meeting.—Carried. Moved by Mr. Anderson, seconded by Mr. Johnston, that one hour and fifteen minutes be allowed at noon.—Carried. Moved by Mr. Johnston, seconded by Mr. Gray, that the matter of allowing the principal to dismiss his room half an hour each week be referred to school committee, with power to deal with same.—Carried. Moved by Mr. Anderson, seconded by Mr. Gray, that N. W. Campbell, I. P. S., be appointed school inspector for the town for 1887, at a salary of \$20 per annum.—Carried. The secretary was authorized to issue cheques for salary to teachers on the last teaching day of each month.

AT the last meeting of the Hamilton Board of Education for 1886, the following communications were read: From Miss Augusta Stewart and Miss C. A. Durdon, resigning their positions as teachers; from Misses C. Davis and L. M. Atkinson, applying for positions as teachers; from Mr. Marling, Secretary of the Education Department, enclosing an extract from the report of Inspector J. E. Hodgson, congratulating the board on improvements made in the Collegiate Institute, and expressing the hope that a gymnasium would be built this year. The chairman referred these communications to the respective committees for consideration, after which the chairman of the Internal Management Committee submitted the following report: Your committee recommend that in view of the number of pupils who have passed the recent entrance examination, a third Commercial Class be formed, and Mr. Morton, of the Cannon Street School, be appointed, if necessary, to take charge of the Commercial Classes at that school, and the necessary promotions be made to meet this change; also that the two lower grades of that school be placed on half time as required; that Miss Mary Morton be promoted to the 10th grade with salary of \$500 per annum. Misses Mary Henry be promoted to 9th grade, S. C. Burns to 8th, Ann Kennedy to 7th, J. Main to 6th, B. Gillespie, to 5th, Lucy Bowes to 4th, Annie Mitchell to 3rd, Ida Morton to 2nd. The following promotions and appointments are also recommended: Promotions—Misses A. Slocombe from 7th to 8th grade, S. H. McKean 6th to 7th, E. Marshall 6th to 7th, Jessie Kennedy 5th to 6th, M. Patton 3rd to 4th, B. Davis, 1st to 2nd. Appointments—Misses Annie Ainslie, S. Marr, B. Dingwall, Carrie White, Isa Black, B. Somerville, Kate Bowerman, to the 1st grade. It is recommended that the applications of Mrs. Davidson and Miss Bell for increase of salary be not granted. This report was adopted.

Examination Papers.

EAST MIDDLESEX. PROMOTION EXAMINATION.

November, 1886.

THIRD TO FOURTH CLASS.

COMPOSITION.

LIMIT OF WORK.—Capitals continued; punctuation marks:—, ; : . ? ! “.” Compositions based on object lessons, pictures, local events, relation of stories, subject matter of reading lessons. Familiar letter-writing. Simple business forms, such as accounts and receipts. Exercises to train in the correct uses of apostrophes, and of common words and phrases that are liable to be misused such as: older and elder, healthy and wholesome, “there is” and “there are.”

1. Write the story that the teacher will read to you from another page.

2. After you have written the story, tell how you think Willie Gray was rewarded for his kindness.

3. Put the following into a properly written letter from Edwin F. Meddin, Carleton P.O., to Mr. A. S. Brown, York Mills, and dated 23rd Nov., 1886:

my father instructs me to write to you asking whether you would be willing to exchange with him twenty bushels or more of seed spring wheat and six or seven bags of potatoes he thinks the soil is so different on your farm from what it is on ours that the exchange proposed would be profitable to both if it is convenient for you to make it I will drive the things over any day you mention and my father will not forget the favour I enclose a stamp for reply and remain

4. Mrs. Markham sold Mr. T. Black, London, 19 lbs. of butter at 17 cents per lb., 18 doz. eggs at 16 cents per doz., and 28 lbs. of lard at 9c. per lb.; in payment she received 15 lbs. brown sugar at 5c. per lb., 7 lbs. granulated sugar at 11c. per lb., and the balance in cash.

Make out the account: use the ruler in drawing the lines.

GRAMMAR.

LIMIT OF WORK.—Parts of Speech. Inflections. Analysis of simple sentences as far as subject, enlargements of subject, verb, objective complements, adverbial complements. Correction of errors. Definition should always succeed accurate knowledge of the thing defined.

1. (a) Write a sentence using the word *lazy* as an adjective.

(b) Write a sentence using it in an adverb derived from *lazy*.

(c) Write a sentence using in it a noun derived from *lazy*.

2. Write phrases corresponding to the following, changing the possessives into the plural number:—

The man's head, the boy's dinner, the sheep's fleece, the goose's wing, the child's eyes, his chin.

3. Change the following sentences so that the verb will express action in the present time:—

Did he go? He went.

Did you bring your overcoat? I brought it.

4. Write these sentences improving the italicized words:—

(a) I have only *went* through the book once.

In sentence (a) where should *only* be placed?

(b) I'll tell your father you are diligent and that is a good *recommend*.

(c) It was Mr. B. who first *learned* me to read.

5. Are the italicized words in the following sentences correct? If not, what should they be?

(a) Do you wish both *him* and *me* to go?

(b) He *throwed* me *agin* the fence and *hurted* me.

(c) I am stronger than *her* although she is bigger than *me*.

(d) Walter with his pony and dog *is* out there waiting for you and *I*.

6. Parse:—

His step is like fountains

That bicker with glee.

7. Analyse:—

(a) All alone went she.

(b) The creeping tide came up along the sand.

(c) Still the boatmen hear her call the cattle home

Across the sands o' Dee.

(d) Through every period of my life

Thy goodness I'll pursue.

(e) When day and night

Divide Thy works no more.

(f) My ever-grateful heart

Thy mercy shall adore.

(g) Through all eternity, to Thee

A joyful song I'll raise.

(h) But O! eternity's too short

To utter all Thy praise.

(Allow 2 marks for each sentence correctly divided into noun part and verb part, and 1 mark for each of these parts correctly analysed into its subdivisions.)

GEOGRAPHY.

LIMIT OF WORK.—SECOND CLASS.—Local geography; map of the school grounds. Definitions of the chief divisions of land and water. Talks and stories about animals, plants, people, air, sun, moon, and shape of the earth. Pointing out oceans and continents on the Map of the World.

THIRD CLASS.—Definitions continued; first accurate knowledge, then the memorizing of the definition. The great countries, large cities and most prominent physical features on the Map of the World. Maps of the County, of the Province of Ontario, of Canada, and America. Map drawing. Motions of the earth, seasons, zones.

1. Draw an outline of the County in which you live; mark the township boundaries, and one railway line, and locate four towns or villages.

2. What is an import? What an export?

State four imports into Canada; also four exports.

3. (a) What is a peninsula? State where there is one in America and where there is one in the Eastern Hemisphere.

(b) What is a harbour? Where is there one?

(c) When is a river a boundary river? Give an example of one.

4. Tell where the following Counties and Provinces are:—Grey, Lanark, Prescott, Prince Edward Island, and British Columbia.

5. What and where are Quinte, Winnipeg, Florida, Andes, Good Hope, Baltic, Liverpool, Suez, Afghanistan, Ceylon.

6. Draw neatly a hemisphere marking the zones and their boundary lines.

7. For what names do the following abbreviations stand:—Ont., Eng., N.W.T., N.B., B.C., Mich., N.Y., G.T.R., N. Lat., and W. Long.?

8. Over what line or parallel will the sun be shining a month from now?

ARITHMETIC.

LIMIT OF WORK.—Practical applications of the four simple rules continued. Factoring continued. Reduction and the compound rules. Cancellation. Measures and multiples.

1. 689 is contained in a certain dividend 437 times and leaves a remainder of 469; if 690 be added to the dividend, what will the quotient and remainder then be?

2. The sum of two numbers is 1415, the greater one of the two is \$17; divide the product of these two numbers that added together make 1415 by their difference.

3. (a) In 26 gallons, 12 pints, 9 quarts, 0 gills, how many quarts?

(b) In 409612 rods, 0 ft., 0 in. of wire, how many yards?

(c) In 3 weeks, 28 days, 168 hours, how many weeks?

4. A bag of grain weighs 1 cwt., 45 lbs., 0 oz., how much more than a ton would 14 such bags weigh? and what would a ton of such grain be worth at a dollar per cwt.?

5. Make a bill of the following items; put all the work on the paper, and write the denominations. Use ruler to draw the lines in the bill:—

Mrs. Dalton bought of W. L. Grigg & Co, on the 17th Nov., 1886,

95 lbs., 8 oz. butter @ 24 cents per lb.

4 lbs., 6 oz. starch @ 2 cents per oz.

2 gals., 3 qt. syrup @ 80 cents per gal.

15 doz. eggs @ 16 cents per doz.

7½ yards cloth @ 36 cents per yard.

12 yards calico @ 12½ cents per yard.

15 spools @ 3 for 10 cents.

3 marks for correct addition of the bill.

6. A drover bought cattle, hogs and sheep; the hogs cost on the average half as much as the cattle and four times as much as the sheep. He paid \$36.75 for 7 sheep. Find the total cost of the 7 sheep, 23 cattle and 48 hogs.

7. (a) How much per sq. foot is \$1.25 per sq. yard?

(b) How much per dozen is \$7½ cents per pair?

(c) How much per cwt. is 75 cents per bushel for wheat (60 lbs. to the bushel)?

8. A field of hay 40 rods long and 20 rods wide averages 1 ton 1400 lbs. to the acre. What is the hay worth at \$9.60 per ton?

9. A pile of four-foot wood is 33 ft. long and 5 ft. high, how much is it worth at \$3.54 cents per cord?

10. (a) Find a common factor of 621 and 1472?

(b) What is the smallest number that both 621 and 1472 will divide without a remainder?

HYGIENE AND TEMPERANCE.

LIMIT OF WORK.—Respiration, Circulation, and Digestion.

1. What is meant by good ventilation?

Why is it necessary to health?

How is the escape of the foul air provided for in this school-room?

Give rules for ventilating a sleeping room.

2. All the blood, pure and impure, must pass through the heart.

What is the impure or venous blood?

Whence does the heart receive the impure blood, and what does the heart do with it?

Why do we breathe?

3. Why is it important that food should be properly chewed?

Why do we need variety of food, or why is it better to live on bread and meat and potatoes than to diet on bread alone?

Why does exercise give us appetite for food?

4. Why is it so hurtful to take alcohol just before setting out on a very cold journey?

How does alcohol affect the brain?

DRAWING.

1. (a) Draw eight parallel vertical lines one inch long.

(b) Eight parallel oblique lines from left to right one inch long.

2. Draw a pentagon, a figure with five equal sides; leave construction lines on paper.

3. Draw a square one inch to the side and in it put two crosses one-eighth of an inch wide, the cross on the diameters overlying the cross on the diagonals.

4. Draw a square same size as last and in it draw an envelope showing the side with the flap laid down, each corner of the envelope to touch a different side of the square.

5. Make a picture of the broom. (The teacher will set the broom where its side can be plainly seen by the class.)

6. Open the Third Reader at page 238 and copy the leaf of the maple and of the wood-sorrel.

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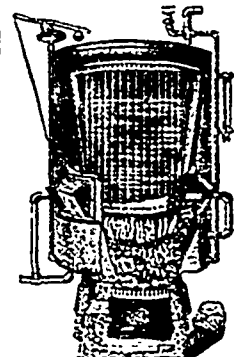
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